MIDDLE EAST TECHNICAL UNIVERSITY
DEPARTMENT OF BASIC ENGLISH

MORE TO READ I

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ANKARA, 2006

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MISCELLANEOUS

1 SONIA AND SAM

1 Sam, 54, is from Rosebud, a small town in New Jersey. Rosebud looks like many other towns in the United States. On Main Street, there is a post office and a bank. There is a bookshop between the post office and the bank. Opposite the bank, there is a shopping centre with a supermarket and a clothes shop. Sam's office is next to the post office. Everybody in town knows Sam. He is a good doctor. He is short with dark hair and brown eyes. **His** wife's name is Sonia. She is tall with blond hair and blue eyes. She is an engineer and she works for a large company in New York City. Every day, she takes the train to the city.

2 Sonia and Sam live in an old white house on Cleveland Road. They have two children, Ted and Jane. Ted lives in Brazil with his wife, Maria, and Jane lives in Alaska. Ted and Jane's rooms are always ready for them, and sometimes **they** come to visit. At the weekend, Sonia and Sam work in the garden. Sonia grows flowers and Sam has a large vegetable garden. He likes cooking special meals for their friends using their own fresh vegetables.

A. What do the following refer to?

1. His (para. 1) : _____
2. they (para. 2) : _____

B. Answer the following questions.

1. Where is Rosebud?

   _____

   _____.

2. What does Sam do?

   _____

   _____.

3. Why does Sonia go to New York City every day?

   _____

   _____.

4. How does Sonia go to work?

   _____

   _____.

5. Who does their son live with in Brazil?

_____

_____.

6. Where does their daughter live?

_____

_____.

7. What do Sam and Sonia do at the weekend?

_____

_____.

C. Mark the following statements True (T) or False (F).

T F 1. Sam's office is very close to the bookshop.

T F 2. Sonia has blond hair and blue eyes.

T F 3. Sonia grows vegetables and uses them when she cooks for her friends.

2 LOS ANGELES — THE CITY OF ANGELS

Los Angeles (LA) is the second largest city in America. It's also home to film stars, sunny weather, tall buildings and heavy traffic.

ACCOMMODATION

The hotels in LA are more expensive than those in many other American cities, but they are clean and safe. The Biltmore and The Omni are lovely, and close to special bus stops where you can get cheap rides to various sights.

PLACES TO VISIT

There are many interesting places you can visit, like Venice Beach with its street performers, Universal Studios to see how they make films, and Griffith Park. You can also see the handprints and footprints of film stars outside Grauman's Chinese Theater. Children can visit the Children's Museum – one of the most exciting museums in the world.

EATING OUT

There are famous restaurants you can eat at, like the Buffalo Club, a place packed with famous people, or Musso & Frank's, Hollywood's oldest restaurant. For the most delicious Mexican dishes, eat at the Border Grill.

SHOPPING

You can buy cheap fashionable clothes on Melrose Avenue. Do you want designer clothes? Then go to the expensive shops on Rodeo Drive. A visit there is always unforgettable.

ENTERTAINMENT

The nightlife is exciting on the Sunset Strip, an area in Hollywood with famous clubs like The Whiskey and The Roxy. There you can enjoy rock 'n' roll music. Also, 24-hour cafes like Van Go's Ear are popular with visitors.

LA is a modern city with something for everyone. It's noisy and crowded, but it's also fascinating.

A. Fill in each gap using the information in the text.

1. At _____, you can see people performing in the streets.
2. The Whiskey and The Roxy, two famous clubs where you can listen to rock 'n' roll music, are on _____.
3. _____ is open 24 hours.

B. Mark the following statements True (T) or False (F).

T F 1. Los Angeles hotels are clean and safe.

T F 2. The buses which drive tourists to various sights for a low price stop near The Biltmore and The Omni.

T F 3. People go to Griffith Park to see footprints of film stars.

C. Answer the following questions.

1. What is the weather like in Los Angeles?

_____

_____.

2. What is the Border Grill famous for?

_____

_____.

3 COMPUTERS AND GIRLS

1 The girls in the sixth-grade class in East Palo Alto, California, all have the same access to computers as boys. That is to say, boys and girls both have computers which they can use. However, studies show that by the time girls get to high school, they use computers less than boys, and **this** causes a technology gap.

2 Janice Weinman of the American Association of University Women says, "Girls tend to be less comfortable than boys with the computer. They use it more to type letters, reports, etc. rather than to find ways of dealing with problems."

3 The studies show that girls make up only a small percentage of students in computer science classes. Girls usually say that they have less computer ability than boys do. They are less confident when using computers. Besides, they use computers less often than boys outside the classroom.

4 The instructor of the computer lab in Cesar Chavez School says, "Boys are not so afraid they might do something that will harm the computer, whereas girls are afraid they might cause damage somehow."

5 Six years ago, the software company Purple Moon also noticed that girls' computer usage was falling behind boys'. Karen Gould of Purple Moon says, "The number-one reason girls don't like computer games is not because they're too violent or too competitive. Girls just find them incredibly boring."

6 According to the study conducted by Purple Moon, girls want games with people similar to **those** around them and stories about what is going on in their own lives. Karen Gould says, "there is no real reason why girls wouldn't want to play on a computer; it is just a content thing."

7 The sponsor of the study says that the technology gap, which separates the girls from the boys, must be closed if women want to compete effectively with men in the job market in the 21st century.

A. What do the following refer to?

1. this (para. 1) : the fact that _____
2. those (para. 6) : _____

B. Fill in each gap using the information in the text.

According to studies, there are fewer girls in (1) _____. There are different explanations for this. Girls think they have (2)_____ _____. Therefore, they don't feel very (3) _____ when using computers. In addition, they don't use computers (4) _____ outside the classroom.

C. Answer the following questions.

1. What is the number-one reason why girls don't like computer games?

_____

_____.

2. Why must girls close the technology gap between themselves and boys?

_____

_____.

4 DIFFERENT COUNTRIES, DIFFERENT EATING HABITS

Brazil

Brazilians don't like eating alone. They like eating with their friends and family at home or in restaurants. **They** never have lunch at the office and they eat very late at night — at about ten o'clock. Brazilians like strong coffee in small cups at any time of the day. They make many different fruit drinks and also very good beer. They don't eat on the street or on the bus, and they never eat with their hands. They eat pizza and sandwiches with a knife and fork.

The Philippines

Many Filipinos have three meals a day with two snacks in between. Rice is a part of every meal. People make desserts with **it**. Filipinos like eating soup, meat, vegetables and a lot of different sauces. In some parts of the country, they make wine. Filipinos usually eat with their families. They eat with a fork and a spoon, or with their hands. It's polite to leave a little food on the plate at the end of a meal.

Finland

In Finland, there are a lot of different dishes. Smoked fish and hot soups are some examples of these dishes. In Finland, fast food includes pizza and sausages, and they are very popular. On the streets, there are stalls and they sell sausages, Finland's favorite food. Finnish people drink a lot of beer. You can buy excellent Finnish beer in every shop in the country. During the week, most families don't usually have dinner together. Sometimes, at the weekends, they eat with their friends. They cook meals together, or each person makes and brings a part of the meal.

A. What do the following refer to?

1. They : _____
2. it : _____

B. Mark the following statements True (T) or False (F).

T F 1. Filipinos eat only three times a day.

T F 2. Filipinos don't mind eating with their hands.

T F 3. You should never leave any food on your plate in the Philippines.

T F 4. In Finland, family dinners are very common during the week.

C. Complete the following sentences according to the text.

1. Finnish people love eating _____.
2. A popular drink in Finland is _____.

D. Answer the following questions.

1. When do Brazilians have dinner?

   _____

   _____.

2. Which drinks are popular in Brazil?

   _____

   _____.

5 THE AMISH

The Amish are a special group of Americans. There are about 85,000 Amish people in the United States. The largest groups live in Ohio, Pennsylvania, Indiana, Iowa and Illinois. The Amish people keep apart from the rest of the world. They live in their own groups; they have their own language and they don't have any relationship with the outside world.

The Amish have a simple life. They grow vegetables and fruits, but they don't have machines on their farms. They don't drive cars. They have horses. They do not have electricity or telephones in their homes.

The Amish are called 'the plain people'. They all wear the same style of clothes. For example, the men all wear dark clothes and hats; the women wear long dresses and hats.

Amish children have one-room school houses. They have Amish teachers. They have no school after the eighth grade.

A. Mark the following statements True (T) or False (F).

T F 1. The Amish live in different parts of the world.

T F 2. The Amish prefer being with other Americans.

T F 3. The Amish have a modern style of life.

T F 4. Amish schools are generally small.

T F 5. Amish parents don't send their children to university.

B. Answer the following questions.

1. Which language do the Amish speak?

_____

_____.

2. Why are the Amish called 'the plain people'?

_____

_____.

6 THE MAN WITH THE GLOVES

Michael Greenberg is a popular man. He is not famous in sports or in the arts, but people, especially poor people, on the streets of New York know about him.

For these poor people, he is not Michael or even Mr. Greenberg. For them, he is "Gloves". "Here comes Gloves," they say when they see him walking down the street. How did he get that name? Mr. Greenberg looks like any other businessman. He wears a suit and carries a briefcase, but he is different. In his briefcase there are not only papers and books but also several pairs of gloves. On cold winter days, Mr. Greenberg does not walk quickly down the street like other New Yorkers. He looks around at people; he looks for poor people with cold hands. That is why he carries gloves in his briefcase. He stops when he sees someone poor with no gloves and gives him or her a pair of gloves.

Every day during the winter, Mr. Greenberg gives away gloves. During the rest of the year, he buys gloves. Also, people who know about him send him gloves. He has a mountain of gloves in his apartment. There are gloves of all colors and sizes: children's gloves, work gloves, and evening gloves for ladies.

Why does Mr. Greenberg help these people? When he was a child, his family was poor. However, his father always gave things to other people. He thought it made everyone happier. Michael Greenberg feels the same way. He feels very happy when helping the poor.

A. Mark the following statements True (T) or False (F).

T F 1. Mr. Greenberg is a famous actor.

T F 2. Mr. Greenberg is called "Gloves" because he always wears gloves.

T F 3. Mr. Greenberg gets all his gloves at shops.

T F 4. In his apartment, Mr. Greenberg has a lot of gloves.

T F 5. Mr. Greenberg comes from a rich family.

B. Answer the following questions.

1. What does Mr. Greenberg have in his briefcase?

_____

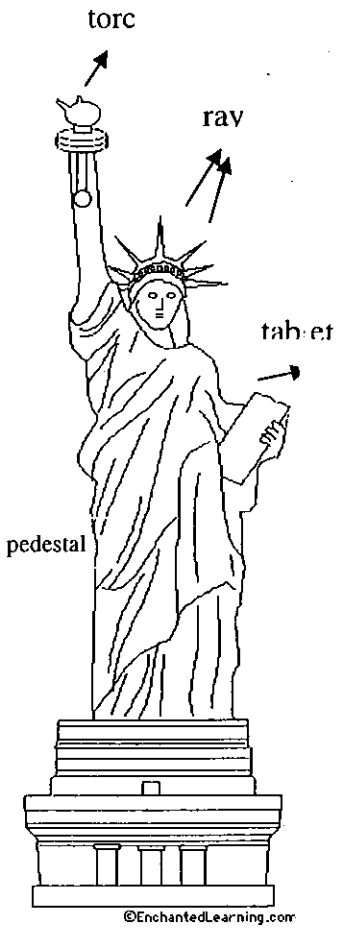
_____.

2. Why does Mr. Greenberg not walk very quickly on cold days?

_____

_____.

7 THE STATUE OF LIBERTY



1 The Statue of Liberty, a universal symbol of freedom and democracy, is on Liberty Island in New York Harbor. It was a gift from the people of France to the people of the United States.

2 The French sculptor Frédéric Auguste Bartholdi designed the Statue. He started to build the Statue in France in the year 1875 and the construction finished in 1886. A French ship called the "Isere" brought it to the USA in 350 pieces the same year. Workers spent 4 months to put them together.

3 The Statue is 93 meters tall from the ground to the tip of the torch. Visitors climb 354 steps or take the elevator to reach the crown. There are 25 windows in the crown. Visitors can rest, take photos and enjoy the scenery of New York City **there**. The seven rays of the Statue's crown symbolize the seven seas and seven continents of the world. The Lady with the Lamp holds a tablet in her left hand. It reads "July 4, 1776" (in Roman numerals), the Independence Day of America.

4 There is a museum in the pedestal. More than 5 million people visit **it** each year and learn about its history there.

5 The only way to get to the Statue is by ferryboat. Ferryboats take visitors to the Island every 30 minutes. The entrance to the Statue is free, but the ferry tickets cost $10 for adults and $4 for children aged 4-12. Children under 4 don't pay any money.

A. What do the following refer to?

1. there (para. 3) : _____
2. it (para. 4) : _____

B. Mark the following statements True (T) or False (F).

T F 1. The "Isere" was the name of a French ship.

T F 2. The only way to get to the top of the Statue is the steps.

T F 3. The ferry is free for children under 4.

C. Answer the following questions.

1. Who gave the USA the Statue of Liberty?

_____

_____.

2. Who is the designer of the Statue of Liberty?

_____

_____.

3. How long did the construction of the Statue take?

_____

_____.

4. How long did it take to put the pieces of the Statue together?

_____

_____.

5. What do the seven rays of the Statue's crown symbolize?

_____

_____.

6. Why is July 4 important for the Americans?

_____

_____.

8 A NEW ARTIST IN NEW YORK

1 A new show of paintings opened in New York last week. The name of the artist is Maria Arroyo. People in New York don't know her, but she is quite famous in some other countries. She grew up in Mexico. She studied with several famous artists **there**. In 1995, she married Ted Diamond, a reporter for the *New York Gazette*. The same year, Maria and Ted moved to Brazil. Maria won a lot of important awards in Brazil, and she showed her work in Mexico and other countries. Her work is very popular in these countries now.

2 Maria Arroyo is a small, quiet person, but her paintings are very large. They are full of color and excitement. She says that she uses Mexican colors. In Mexico, the sky and the sea are usually very bright blue. The houses often have bright colors too: pink, yellow, or orange.

3 In her paintings, the excitement comes partly from these colors. **It** also comes from her style. She paints large forms that seem to move. Mario Arroyo's paintings aren't like photographs. **They** do not show us houses, flowers, clouds or boats. Instead, her paintings show us her feelings about the world.

4 We look forward to seeing more work from this excellent artist.

The New York Times by Sandra Woolf

A. What do the following refer to?

1. there (para. 1) : _____
2. It (para. 3) : _____
3. They (para. 3) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Maria is a very popular artist in New York.

T F 2. Ted Diamond works for a newspaper.

T F 3. Many people in Brazil like Maria's paintings.

T F 4. This isn't Maria's first show of paintings.

T F 5. The colors in Maria Arroya's paintings are soft and pastel colors.

C. Fill in each gap with <u>ONE</u> word according to the text.

1. In 1995, Maria _____ Ted Diamond, and they went to _____.
2. The writer thinks Maria is a (n) _____ artist.

9 AN ALL-BOY BAND

1 The Backstreet Boys, or BSB, is an American all-boy band. The band started with Howie Dorough, AJ McLean and Nick Carter.

2 AJ worked as a model when he was six. At that time, he also acted in school plays. When he was fourteen, he met Howie. Howie had had roles in films and plays. **They** became friends and went to auditions together. They met Nick at one of them. AJ, Howie, and Nick started singing together for a record company called Transcontinental Records.

3 The record company owner, Lou Perlman, had a friend who knew Kevin Richardson. Kevin had a job at Disney World in Orlando at the time. When Lou's friend told Kevin about the new group, Kevin decided to meet them. The four became friends and Kevin joined the group. Lou wanted one more person for the group. The fifth member was Brian Littrell, Kevin's cousin.

4 BSB released their first album in 1996. They received a gold record for this album. The second **one** followed in late 1997, but it was not as successful as the first.

5 BSB has got fans in many countries. You might even be a fan of this great band. If you want to write to them, here is the address: Backstreet Boys, Post Office Box 618203, Orlando, FL 32861-8203.

A. What do the following refer to?

1. They (para. 2) : _____
2. one (para. 3) : _____

B. Mark the following statements True (T) or False (F).

T F 1. AJ had roles in school plays at the age of six.

T F 2. Kevin was one of Lou Perlman's friends.

T F 3. BSB is not so popular outside the United States.

C. Answer the following questions.

1. How many members did the band have in the beginning?

_____

_____.

2. Where did Kevin work before he joined BSB?

_____

_____.

3. Where did AJ and Howie meet Nick?

_____

_____.

4. Who joined the group last?

_____

_____.

5. Was the first album of BSB a success? How do you know?

_____

_____.

6. Where in America do BSB live?

_____

_____.

10 BUDDY HOLLY

1 Buddy Holly was born in the small town of Lubbock, in the state of Texas, on 7th September, 1936. His name then was Charles Hardin Holly, not 'Buddy Holly'. In his short life, he became one of the greatest rock 'n' roll musicians of the 1950s.

2 In January 1959, Buddy Holly began a concert tour with some other musicians. They were on tour for nearly a month, going from one place to another every day. On 2nd February, they were in Iowa, in the central United States, and they were very tired. That night, after the concert, Buddy made a suggestion. "Let's go to our next concert by plane tonight." The other musicians liked Buddy's idea. They immediately said "yes".

3 The same night at 1 a.m., Buddy and his two friends were on the plane. They were on their way to Minnesota for their next concert. It was a cold and windy night. It was snowing too. Then, something bad happened. People saw the lights of the small plane come slowly down and down. Suddenly, they disappeared. Maybe it was the pilot's mistake, or maybe there was a technical problem, but no one found out the reason for the accident.

4 Buddy Holly, one of the great American rock stars, and his two friends died tragically in the accident. He was only 23 years old.

A. Mark the following statements True (T) or False (F).

T F 1. Buddy Holly wasn't famous when he died.

T F 2. Buddy Holly and his friends gave their last concert in Minnesota.

T F 3. The reason for the accident is not clear.

T F 4. Buddy Holly and his friends died in a plane crash.

B. Answer the following questions.

1. What was the real name of Buddy Holly?

_____

_____.

2. Why did Buddy Holly and his friends want to go to Minnesota by plane?

_____

_____.

3. What was the weather like on the night of 2nd February?

_____

_____.

11 TIKU

1 My name is Tiku. I am an Aborigine from Alice Springs in the center of Australia. That is where many Aborigines live. We are different from the other people in Australia because we have brown skin. We are actually the original people of Australia. The white people came here in 1788 and took our land. After that, we learned to live with **them**.

2 In Aboriginal culture, we do not own land. The land is for everyone. The animals and plants are for everyone but the white people take the land and use it for farms. They cannot understand our ideas about land and its importance for us.

3 Life is not easy for me because I am an Aborigine. University life is also difficult because most universities are in big cities. They are far from our homes in the center of Australia. There are many Aborigines in Alice Springs, but I am the only Aborigine in my class at university so I feel that I'm different. Universities are very expensive. We have to buy many books but we are poor.

4 I am the first Aborigine woman to go to university. I want to be a teacher because there aren't many Aboriginal teachers in our schools. I want to teach my people our history. I do not want Aboriginal children to forget their history. They learn only Australian history at schools but **that** is different from our history.

5 Aboriginal history is not written in history books. Everybody learns it from their grandparents. They tell stories, and these stories are very important because they explain our history. They tell about the beginning of the world and about the land, trees and animals. They teach us many things about Aboriginal life and help us to understand the difference between right and wrong.

6 I want to learn new things at the university but I also want to learn things from my grandmother, who tells us stories. She never went to school, but she is a very wise woman. She knows many things about Aboriginal culture. She teaches me these things so that I can share them with other Australian students. Then, the white people can better understand us.

A. What do the following refer to?

1. them (para. 1) : _____
2. that (para. 4) : _____

B. Mark the following statements True (T) or False (F).

T F 1. There were Aborigines in Australia before the white people went there in 1788.

T F 2. Aborigines don't want to share their land with the white people.

T F 3. Aborigines learn their history from their grandparents' stories.

T F 4. Tiku's grandmother learnt a lot about Aboriginal culture at school.

T F 5. Generally, the white people don't know much about Aboriginal culture.

C. Answer the following questions.

1. Where do Aborigines generally live in Australia?

   _____

   _____.

2. Why does Tiku feel different from other students at university?

   _____

   _____.

3. Why does Tiku want to be a teacher?

   _____

   _____.

4. What are Aboriginal stories about?

   _____

   _____.

12 NATALIE IMBRUGLIA

1 Natalie Imbruglia was born in 1975 in a small town two hours from Sydney, Australia. She is the second daughter of a family with four girls. Her father is Italian and her mother is Australian. She took tap dancing and ballet lessons when she was a child. She danced 6 days a week, mainly after school. When she was fifteen, she went to a drama school. She became famous when she started acting in the Australian TV series *Neighbours*. Two years later, she got bored with it and left.

2 In 1994, she moved to London. She needed to earn money, so she started writing songs. In 1996, she met Mark Fox, creative director for BMG publishing. She showed her work to **him** and he liked it so much that he contacted Phil Thornally, a former member of the rock band *The Cure*. Then, they recorded her hit song, "Torn". It was so popular that almost all major radio stations around the world played **it** again and again. In 1998, she made her first album "Left of the Middle". It was very successful and it brought her many prizes, including MTV Music Video Awards, the Australian Record Industry Awards and MTV Europe Video Music Awards.

3 Now, Natalie lives alone in West Hampstead, London. She still loves acting and she acted in *Johnny English* together with John Malkovich, but she wants to go on writing and singing her songs for a while. In April 2005, she released her third album. The first single from this album was "Shiver" and it became her longest running single.

A. What do the following refer to?

1. him (para. 2) : _____
2. it (para. 2) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Natalie's parents have four children.

T F 2. Natalie first became famous as a singer.

T F 3. Natalie performed in *Neighbours* for two years.

T **F** 4. Natalie got prizes for her hit song "Torn".

T **F** 5. Natalie still lives with her family in Sydney.

C. Answer the following questions.

1. Why did Natalie stop acting in *Neighbours*?

_____

_____.

2. Why did Natalie begin writing songs?

_____

_____.

3. Who is Phil Thornally?

_____

_____.

4. How many albums has Natalie made?

_____

_____.

13 CELINE DION

Celine Dion, one of the biggest international stars in pop music history, was born in Canada in 1968. She is the youngest of the 14 children in the Dion family. She began singing in her parents' piano bar when she was just 5 years old. When she was 12, she recorded one of her first songs " *Ce N'etait Qu'un Reve" ("It Was Only a Dream")*, with the help of her brother Michel and her mother. Michel sent this song to a manager named Rene Angelil. When he listened to the demo tape, he decided to become her manager. At the beginning, Celine became famous only in Canada and France because all her songs were in French. At the age of 18, Celine saw Michael Jackson performing on TV and told Angelil she wanted to be a star like him. Angelil sent her to an English school to learn English, and also he changed her hair style and her physical appearance. Celine was now ready to be successful in the USA with her new image. Her first international success was the theme song for Disney's *"The Beauty and the Beast"*. The song won both a Grammy and an Academy Award and topped the pop charts. In 1994, she got married to Angelil, who is 26 years older than her. In 1996, she won another Grammy Award and was invited to the opening ceremonies of the Atlanta Olympics. The following year, she sang *"My Heart Will Go On"*, the theme song of the film *"Titanic"*, and was once again number one. In 1999, she announced that her husband had throat cancer, so she had to take a break to spend more time at home. Two years later, she gave birth to her son. Dion returned to the public eye in 2002 with her hit *"A New Day Has Come"*. She is still one of the hardest working stars in show business.

A. Mark the following statements True (T) or False (F).

T F 1. Celine Dion comes from a small family.

T F 2. Her brother helped Celine find a manager.

T F 3. She was already famous all over the world when she married Angelil.

T F 4. Celine Dion won her first Grammy with *"The Beauty and the Beast"*.

T F 5. She did not return to music world after she had a son.

B. Answer the following questions.

1. Why wasn't Celine Dion famous in the USA at the beginning of her career?

   _____

   _____.

2. How did Angelil help Celine become an international pop star?

   _____

   _____.

3. Why did she decide to take a break in 1999?

   _____

   _____.

14 HETTY ROBINSON

1 Hetty Robinson learnt all about money when she was very young. As a child, she read the financial pages of the newspapers to her rich father. Her father died when Hetty was 30 years old and she inherited $1 million. When she herself died, her two children received a fortune of more than $100 million.

2 Hetty made her money on the New York stock exchange. She was a genius. She was named 'the Witch of Wall Street' because she made money quite easily. She was one of the richest women in the world, but she was very **mean**; she counted every cent and she spent very little. She didn't own a house because she didn't want to pay property taxes. She and her children lived in cheap hotels.

3 She spent almost nothing on clothes, and wore the same black dress every day. She washed it herself, but she only washed the bottom of the dress, where **it** touched the ground, because she didn't want to spend money on soap. Other people had their own offices, but Hetty used a desk in the bank where she kept her money because it didn't cost anything. She sat in the bank and ate her sandwiches while she bought stocks and shares. If the bank complained, she just moved all her money to another bank.

4 Hetty's family paid the price for her meanness. When she was 33, she married a millionaire, Edward Green, and **they** had two children. Green, however, lost all his money, so Hetty left him. When her son, Ned, hurt his knee in an accident, Hetty didn't want to pay for a doctor, so she took him to a hospital for poor people. The doctor knew that Hetty was **wealthy** and asked for money, but Hetty didn't pay any money and took the boy away. His leg didn't get better and two years later doctors removed it.

5 But in the end Ned got his revenge. At the age of 81, Hetty had an argument with a shop assistant about the price of a bottle of milk. She got so angry that she had a heart attack and died. She left half of her money to her son, who spent it all on parties, holidays and expensive jewellery.

A. What do the following refer to?

1. it (para. 3) : _____
2. they (para. 4) : _____

B. What do the following words mean? Mark the best choice.

1. If a person is 'mean' (para. 2), she / he _____ .

   a) owns many houses
   b) spends hardly any money
   c) spends money easily
   d) gives money to poor people

2. If a person is 'wealthy' (para.4), she / he is _____.

   a) kind b) ill c) rich d) intelligent

C. Mark the following statements True (T) or False (F).

T F 1. Hetty knew a lot about finance when she was young.

T F 2. Hetty had very few clothes.

T F 3. Hetty rented an office near the bank where she kept her money.

T F 4. Hetty kept all her money in the same bank all her life.

T F 5. Hetty wasn't rich when she got married.

T F 6. When Ned hurt his knee, Hetty paid a lot of money to the doctor.

D. Answer the following questions.

1. Why did people call Hetty 'the Witch of Wall Street'?

_____

_____.

2. Where did Hetty and her children live in New York?

_____

_____.

3. Why did Hetty leave her husband?

_____

_____.

4. What did the doctors do to Ned's leg?

_____

_____.

5. How did Hetty die?

_____

_____.

6. Why did Hetty argue with a shop assistant?

_____

_____.

7. What did Ned do with the money after his mother died?

_____

_____.

15 A NEW DOWRY ITEM: THE COMPUTER

1 Min Huang is a banker in a small city in China. She surprised her new in-laws when she showed **them** a computer in her dowry. It was there with the traditional items like furniture, dishes and linen.

2 When the family asked about the computer, she explained that she wanted to improve her professional skills. Her office was computerized. "I also hope to connect to the Internet at home to broaden my horizons," she said. When she told her parents that she wanted a computer for her dowry, they didn't hesitate to buy her **one**. They knew a computer would be important to her and to her new family's future.

3 People who study Chinese marriage customs are very interested in this story. According to **those customs**, the groom's parents are responsible for the couple's housing. The bride's family supplies the daily necessities. However, the contents of the dowry have changed over time. In the past, when rural people lived in fairly harsh conditions, they usually provided grain and clothing for daughters who would soon be married. This showed their desire to protect them from hunger and cold.

4 In the 1950s, farm equipment and animals became popular items. Parents hoped that their daughters' lives could be improved through hard work. Modern times, however, brought the need for VCRs, stereos and computers. Through **these dowry items**, parents hope that their daughters will be part of a successful, modern world.

5 Min's parents said, "We want our daughter to be part of a new world. A computer is part of that world." Min completely agrees, and is thankful to have such generous and intelligent parents.

A. What do the following refer to?

1. them (para.1) : _____
2. one (para.2) : _____
3. those customs (para.3) : _____
4. these dowry items (para.4) : _____

B. Answer the questions.

1. What was in Min Huang's dowry?

_____

_____.

2. Why did she want a computer? **(Give <u>two</u> reasons.)**

a) _____

b) _____.

3. According to Chinese traditions, what are the bride's parents responsible for?

_____

_____.

4. Why did rural people give grain and clothing to a daughter before her marriage?

_____

_____.

5. Why do Min's parents think a computer is necessary for her?

_____

_____.

6. What does Min think of her parents?

_____

_____.

16 MIRRORS

1 Mirrors have always been considered as having special powers. The superstition that breaking a mirror is bad luck is very, very old. **This belief** can be observed in some form in most cultures around the world, but, in fact, the first mirrors could not really be broken because they were made of water. People looked at themselves in lakes, ponds and rivers because they believed that by looking at their reflection in the water they could learn about their future. If the water was calm and the reflection was clear, this was considered a good sign meaning that good things would happen to the person. On the other hand, if the water was rough, i.e. not calm, and the reflection was distorted and hard to see, this was a sign that the future would be bad.

2 In the first century B.C., the Romans used to read water fortunes. You could go to a seer, a person with special powers, and have him or her tell you what your future would be. The seer would ask you to hold a bowl of water and look into it and then he or she would study your reflection and tell you what was going to happen to you. If you dropped the bowl, it meant that you had no future, a very bad sign.

3 Ancient people had the idea that a person's reflection was actually the person's soul and that the soul existed outside the body in the reflection. Therefore, if the mirror broke (or the water bowl was dropped), it meant that the soul would be destroyed and the person would soon die. In many cultures, people believed that it was dangerous for a person to look at his/her own image too long. This was because they believed the soul in the reflected image could pull the life out of the person. Similarly, The Basutos (a Bantu tribe in South Africa) believed that crocodiles could drag a person's reflection under water and kill it.

4 In the sixth century B.C., the Romans changed their ideas about mirror fortunes a little. At this time, they believed that a person's health and fortune changed every seven years. Therefore, if you broke a mirror, it was not quite as bad as before: You would have seven years of bad health and general bad luck, but at least you probably wouldn't die.

5 However, Chinese people believed that a well-placed mirror could protect you from evil. This was because they thought bad spirits would be frightened by their own image in the mirror and would then leave people alone. There is an ancient Chinese saying: "When evil recognizes itself, it destroys itself." Therefore, brass mirrors were often placed in the bedrooms to scare evil spirits. **They** were supposed to protect people while they were sleeping.

A. What do the following refer to?

1. this belief (para. 1) : the belief that _____
2. they (para. 5) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. pull (para. 3) (v) : _____
2. kills (para. 5) (v) : _____

C. Mark the following statements True (T) or False (F).

T F 1. According to the beliefs of ancient people, if a person broke a mirror, this resulted in death.

T F 2. In the sixth century, Romans believed that if a person broke a mirror, the effects would be seen after seven years.

D. Fill in each gap using the information in the text.

The first mirrors were lakes, ponds and rivers and people would look at themselves in these in order to (1)_____. They considered (2a)_____ and (2b) _____ as a good sign. They believed that (3a)_____ and (3b)_____ would signal bad things.

In the first century B.C, in Rome, there were (4)_____ who would tell people about their future. To do this, they would give the person (5)_____ and ask him or her to look into it. Then by looking at the person's (6)_____ carefully, they could talk about his or her future. It was important for the person not to (7)_____ as this would mean that he or she had no future.

17 FUTURE CITIES IN THE SEA

In some coastal countries where there is not enough land for an increasing population, living space can expand into the sea. For example, the land area of Hong Kong is small, but the population is large. Therefore, many of the city's poor are unable to find affordable homes in the city itself. They dwell in boats that are tied close to each other by the shore. Such floating towns have given new ideas to a number of architects from different countries. These architects are working on several futuristic designs for oceanic cities. One of these designs, by Eckhard Schulze-Fielitz, is a huge city called "New Venice." It will be built on floating containers. The idea of floating cities has attracted special attention in Japan, which has an enormous population density. Like Schulze-Fielitz, the Japanese architect Kiyonori Kikutake has also suggested floating containers in his design of a town called "Unabara" (Ocean). Another Japanese architect, Hidezo Kobayashi, has proposed building a city, actually a safer one, in a bay which will extend an existing city from the shore into the ocean. It will use both structures that float and structures that are securely tied to the bottom. Boats will pass over and around this city, and waves and tides will provide **its energy.** Kobayashi's city will also be a base for taking out mineral deposits that lie on the ocean floor.

A. What does the following refer to?

1. its energy : the energy of _____

B. Answer the following questions.

1. Why are the Japanese especially interested in floating cities?

_____

_____.

2. Why is Kobayashi's design considered safer than Kikutake's design "Unabara"?

_____

_____.

C. Fill in each gap using the information in the text.

In some coastal countries, the population is going up and there is not (1)_____. As a result, poor people cannot (2)_____ in the city. In Hong Kong, for example, they live (3)_____ by the shore instead. This idea inspired many architects who are working keenly on (4)_____. An example of these is (5)"_____," a huge city that will be (6)_____.

D. Mark the best choice.

1. A possible title for this text is _____.

a) Cities of Japan
b) Advantages of Building Cities on the Sea
c) Future Cities in the Sea
d) Modern Houses

18 GOING FOR GOLD

1 Gold was probably first found on the ground and used by prehistoric man in tool-making. In ancient times, it was made into plates, cups, vases and vessels of all kinds, and of course, jewelry. The first use of gold as money occurred in Anatolia in 670 BC, but it has always been accepted as money anywhere in the world. Sailors, for example, wore a gold earring. If they were shipwrecked, they could exchange it to get home again. Gold is still given to military pilots for the same reason. People have always been fascinated by gold. How many times have people killed others and how many lives have been lost for it? The gold of the Pharaohs was stolen from their tombs in the Pyramids. The Inca and Aztec empires were destroyed for gold. Later in history, hundreds of men from other civilizations died in the jungles of South America as **they** searched for the golden city of Eldorado. In 1849, thousands of people left their homes to join the California Gold Rush. Many were killed by Indians and diseases such as cholera, tuberculosis, chicken pox and the Black Death.

2 Pure gold is rare both in nature and in manufacturing. **It** is usually mixed with other metals. The proportion of gold is shown in carats. If the carat number is high, this means there is more gold but fewer other metals in it. Pure gold is twenty four carat and the cheapest is nine carat. The word carat comes from the Greek word, keration, which means a carob seed. These seeds were used to weigh gold and diamonds.

3 Most gold today is found in South Africa (612 tons a year) and North America (459 tons a year). About 83% of it is used for jewelry. Of the rest, about 9% is used by industry, about 6% is used for coins and 2% is made into gold teeth. Gold is usually found in very small pieces or nuggets. The largest nugget, the Holtermann Nugget, was found in 1872 in Australia. **Its** weight was 214 kilograms.

4 The largest reserves of gold are held in the USA in the Federal Reserve Bank and at Fort Knox. The second biggest stores are held by the Bank of England and the Bank of France. Not all of this gold belongs to the governments of **these countries**. A lot of it is owned by companies, other governments and individuals. When gold is bought and sold, it isn't usually moved. Only the names on a piece of paper are changed. The gold itself stays in the bank.

5 Today, gold is still the most important and valuable metal. And man has used it in many different fields. For example, in the 1920s doctors in France started using gold to treat a disease called rheumatoid arthritis. In the 1960s, scientists used gold-coated mirrors to maximize infrared reflection. In the 1980s, car manufacturers used gold for the metal parts of airbags.

A. What do the following refer to?

1. they (para. 1) : _____
2. It (para. 2) : _____
3. its (para. 3) : the weight of _____
4. these countries (para. 4) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. attracted (para. 1) (adj) : _____
2. illnesses (para. 1) (n) : _____
3. small pieces (para. 3) (n) : _____
4. areas of activity or interest (para. 5) (n) : _____

C. Mark the following statements True (T) or False (F).

T F 1. The first gold coins appeared in Anatolia.

T F 2. The Inca and The Aztec empires always fought with each other for gold.

T F 3. Keration was used to weigh carob seeds in Greece.

T F 4. Only 2% of gold is used in dentistry.

T F 5. The American government owns all the gold in Fort Knox.

T F 6. When companies buy or sell gold, it is usually kept in the bank.

D. Answer the following questions.

1. What was the first use of gold?

_____

_____.

2. Why is nine carat gold the cheapest?

_____

_____.

3. Give <u>two</u> examples of how people used gold in the twentieth century.

_____

_____.

19 THE BEETLE: A LEGEND ON WHEELS

1 One of Hitler's dreams was to increase the number of car owners in Germany, so he employed Dr. Ferdinand Porsche, the well-known constructor, to design an affordable and reliable car for the people. Hitler and Porsche often had arguments, but Porsche was afraid of him, so he stayed in the project and continued his work in the Wolfsburg car factory. In 1938, the factory produced the first cheap car "for the people". It included all the characteristics that Hitler ordered. The engine was at the back of the car and it had quite a specific shape: it was very round and it looked like an insect. That was the reason why it was called "Beetle".

2 During World War II, the Germans used the Wolfsburg car factory to make all-terrain cars – Kubelwagens – and airplanes for the army. However, as soon as the war ended, Beetle production started again and the Beetle immediately became even more popular than Ford's Model 'T'. The great success started with the import of Beetles to Holland in 1947. By 1972, the total number of Beetle cars produced had increased to over 15,000,000.

3 Then sales started to go down because the Beetle was still a 1940s design, although there were some small changes in the engine. In the end, the Beetle lost the war against technology. In 1974, the new Golf model replaced the Beetle in the Wolfsburg car factory. The car designers decided to make a car completely different from their original Beetle model. In 1975, Volkswagen introduced this new Golf in the United States where it was called the 'Rabbit'.

4 Over the years, the Germans produced many models of Volkswagens, using the Beetle and Golf as a starting point and including many other concepts and standards. **These** were produced in Emden, Osnabruck, Wolfsburg and other German cities. Today many people say that Volkswagens are among the most comfortable and powerful cars in Europe.

5 The production of the Beetle in Germany ended in 1978. However, in the early 1980s, there were still millions of Beetles on the road. People formed Beetle Clubs all around the world thinking that **it** would never disappear. Around 1990, there were fewer Beetles on the road. Today, it is almost impossible to see the Beetle in the streets, but the owners of the few remaining Beetle models still try to keep their small cars in the best possible condition. They enjoy driving the Beetle because it has a history behind it. This makes it very special for them.

A. What do the following refer to?

1. These (para. 4) : _____
2. it (para. 5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Hitler wanted Porsche to locate the engine at the back of the car that he produced.

T F 2. The Beetle was more modern than Ford's Model 'T'.

T F 3. The Rabbit was quite similar to the Beetle.

T F 4. In the 1980s, there were Beetle clubs not only in Germany but also in many other countries.

C. Fill in each gap using the information in the first paragraph of the text.

Hitler wanted to (1)_____ in Germany. He thought that German people needed a/an (2a)_____ and (2b)_____ car, so he hired a/an (3)_____ called Dr. Ferdinand Porsche. Porsche did not have a good relationship with Hitler, but he continued his work because (4)_____. In 1938, the (5)_____ produced the Beetle.

D. Answer the following questions.

1. Why was the production of the Beetle stopped during World War II?

_____

_____.

2. Why did the Wolfsburg car factory start to produce the new Golf instead of the Beetle in 1974?

_____

_____.

3. Why is Volkswagen still popular in Europe today?

_____

_____.

4. What is so special about the Beetle?

_____

_____.

20 AN UNUSUAL STYLE

1 Leonardo da Vinci was one of the most interesting characters of the Italian Renaissance. He wrote in Italian using a special kind of shorthand that he invented himself. People who study his notebooks have long been puzzled by something else, however. He usually used "mirror writing," starting at the right side of the page and moving to the left. Not only did Leonardo write in mirror-image script from right to left, but he used strange spellings and abbreviations, and his notes were not arranged in any logical order. He only wrote in the normal direction when he was writing something intended for other people. People who were contemporaries of Leonardo left records saying that they saw him write and paint left-handed. He also made sketches showing his own left hand at work. Being left-handed was highly unusual in Leonardo's time. Because people were superstitious, children who naturally started using their left hands to write and draw were forced to use their right hands.

2 No one knows why Leonardo used mirror writing, though several possibilities have been suggested. Some believe that he was trying to make it harder for people to read his notes and steal his ideas. Others think that he was hiding his scientific ideas from the powerful Roman Catholic Church, whose teachings sometimes disagreed with what Leonardo observed. Another possibility is that writing from left to right was messy because the ink just put down would spread as his hand moved across it; therefore, Leonardo chose to write in reverse because it prevented smudging. Over 4,000 pages of Leonardo's scientific and technical observations in his handwritten manuscripts have survived. It seems that Leonardo planned to publish them as a great encyclopedia of knowledge, but like many of his projects, **this one** was never finished. After his death, his notes were **scattered** among libraries and collections all over Europe. While Leonardo's technical treatises on painting were published as early as 1651, most of his scientific work remained unknown until the 19th century.

Mark the best choice.

1. The purpose of the text is mainly _____.

   a) to show that Leonardo was the inventor of mirror writing
   b) to explain why some artists write from right to left
   c) to explain the originality of Leonardo's hand-writing
   d) to inform the reader of the disadvantages of left-handedness

2. Leonardo da Vinci _____.

   a) wrote from left to right when he wanted people to understand his work
   b) never used ink in his work to keep his notes clean
   c) shared his scientific researches with the Roman Catholic Church
   d) published his greatest work in the encyclopedia

3. How many possibilities of why Leonardo used mirror writing are mentioned in the text?

   a) 2 c) 4
   b) 3 d) 5

4. **this one**(para. 2) does **NOT** refer to_____ .

   a) the great encyclopedia of knowledge
   b) this project
   c) this note
   d) this plan

5. **scattered** can best be replaced by _____ .

   a) spread c) posted
   b) served d) separate

21 COLOR THERAPY

1 Color therapy is the use of color in a variety of ways to promote health and healing. Used to treat both physical and emotional problems, color therapy may involve exposure to colored lights, massages using color-saturated oils, visualizing colors, even wearing colored clothing and eating colored foods.

2 Color has played a role in healing for centuries. In ancient Egypt, patients were treated in rooms specifically designed to break up the sun's rays into separate colors. In Iraq, people also made regular pilgrimages to the Hanging Gardens of Babylon to take advantage of the healing colors of the exotic plants and flowers found there. In India, practitioners of Ayurveda taught that specific colors corresponded with the seven chakras, each of which is an energy center that represents organs, emotions, or aspects of the spirit.

3 However, modern-day color theory was born in the late 17th century when Sir Isaac Newton did his prism experiments and showed that light is a mixture of colors from the visible spectrum. Although doctors used color to treat everything from psychological problems to smallpox over the next hundred years, interest in colors' effects on healing didn't really become widespread until 1878, when Dr. Edwin Babbitt published his book *Principles of Light and Color.* In his book, he explained his work in chromatotherapy, that is, healing with colored lights, and suggested **it** as a treatment for a variety of ailments, including burns, nervous excitability, and cold in the extremities.

4 Probably the most extensive and detailed work on colored light therapy, however, was done by Dr. Dinshah P. Ghadiali who had studied Babbitt's work. In 1920, he introduced a system of colored lights, which he named "Spectro-Chrome" lamps. These were used as a treatment for such diseases as diabetes, tuberculosis, and chronic gonorrhea. Although they were considered logical and effective by the doctors who succeeded with them, many others regarded **them** as ridiculous. Still, this work continues to inspire many color therapists today.

5 In 1947, Swiss psychologist Dr. Max Lüscher introduced the Lüscher Color Test, a form of color therapy still widely used by many psychologists. The test involves choosing 43 colors from a total of 73 possibilities. By observing the colors a person chooses or rejects, and the therapist can learn about his psychological state. For example, if a person selects darker colors, it suggests a need for rest and stress reduction. At about the same time, Russian researcher S.V. Krakov was conducting a series of experiments to show how color can affect the nervous system. He observed that red light stimulated the adrenal glands; therefore, **it** raised blood pressure and pulse rate. On the other hand, blue and white light had a calming effect. Although there are still no studies supporting Krakov's work, today, many practitioners recommend color therapy for stress.

6 In recent years, interest in color therapy has grown as studies have shown the positive effects on different forms of depression. Mainstream researchers are looking into its use for a variety of other illnesses as well, from sleep disorders to hormonal problems. In addition, over the past decade, Aura-Soma, an Eastern-influenced therapy that uses colored bottles of essential oils, has gained popularity. Moreover, Esogetic Colorpuncture Therapy, which focuses colored light on acupuncture points, is being studied as a treatment for a variety of health problems, including migraines, bronchitis, and uterine fibroids.

A. What do the following refer to?

1. it (para. 3) : _____
2. them (para. 4) : _____
3. it (para.5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Color therapists might even tell their patients to wear certain colored clothing items in order to treat their problems.

T F 2. Interest in color's effects on healing became popular with Dr. Edwin Babbitt's book.

T F 3. It can be inferred from the text that if a person chooses light colors in the Lüscher Color test, s/he is less likely to have stress.

C. Answer the following questions.

1. In ancient Egypt, what was special about the rooms where the patients were treated?

_____

_____.

2. What attracted people to the Hanging Gardens of Babylon in Iraq?

_____

_____.

3. What initiated modern-day color therapy?

_____

_____.

4. In the Lüscher Color Test, how can a therapist understand the psychology of his patient?

_____

_____.

5. What did S.V. Karakov try to prove with his experiments?

_____

_____.

6. In present, why is there an increase in interest in color therapy?

_____

_____.

22 CITIES IN THE SEA

1 As the earth's human population grows rapidly, satisfying basic human needs becomes more difficult. Living space and shelter are among our primary requirements. Some parts of the world are simply running out of room for their increasing populations, and people are beginning to look to the sea for additional space. Other basic requirements of human life are food and natural resources. It is no longer enough to farm and mine the lands of the earth for foodstuffs and minerals. Consequently, we have begun to obtain some of the vast mineral and agricultural wealth of the oceans. In recent years, mining and drilling in the sea have added to our stores of oil and gas. In addition, deep sea exploration and mining will soon give access to the rare minerals on the ocean floor. There are, therefore, two reasons why it may become necessary to learn to live in the sea. First, we might need some of **its immense area** for living space. Second, we might need to make use of the resources that lie in its depths. There are already a number of proposals and experiments that may help to achieve these goals.

2 In the early 1970s, the Japanese began the construction of Aquapolis on the main Japanese island of Honshu. **It** is a prototype of futuristic floating cities designed to run on wind, and tidal energy. It uses a biological waste-water system, which disposes of sewage by means of a species of green algae known as chlorella, rather than by chemical means.

3 The time may come when floating cities such as Aquapolis exist not only as permanent extensions of land-based habitats but also as free-floating platforms. These would drift from continent to continent across the deep oceans. Such cities would permit deep sea miners and their families to live near their work places on the ocean floor, but at the same time, miners working on the ocean bottom would face a set of problems. One such problem would be the enormous pressure exerted by the ocean at great depths. Another would be the lack of easy access to air.

4 To study these difficulties, and to test human adaptability to life beneath the sea, scientists have been carrying out several experiments within the last century. The first of these was the Conshelf I Habitat. In 1962, a team, directed by Jacques-Yves Cousteau, remained at a depth of ten meters in the Mediterranean Sea for seven days. The results of this experiment led to the building of the Conshelf II Habitat, where five oceanauts lived successfully at eleven meters. Data from these experiments made possible the construction of Conshelf III in 1964, when two men lived at a depth of 132 meters for forty-eight hours. In the same year The United States Navy tested Sealab I, in which four men lived at a depth of nearly 60 meters for nine days. They found the environment comfortable at a temperature of twenty-nine degrees Celsius and a relative humidity of 72 percent. From these experiments, scientists learned that daily swimming at these depths caused oceanauts to show symptoms of stress.

5 In spite of minor drawbacks, those experiments have proved the possibility of living in the sea. **Their success** has encouraged the architect Warren Chalk to design an entire underwater city, which would make maximum use of space, and would enable entire human populations to live safely and comfortably far beneath the sea for long periods.

6 Obviously, deep sea living has its physical dangers and psychological drawbacks like being in isolation. Nevertheless, due to the necessity of meeting our primary requirements, we may build underwater cities which may even be connected by advanced systems of communication and transportation. Perhaps our children will live in what futurist Alvin Toffler calls "the New Atlantis."

A. What do the following refer to?

1. its immense area (para. 1) : the immense area of _____
2. It (para. 2) : _____
3. Their success (para. 5) : the success of _____

B. Mark the following statements True (T) or False (F).

T F 1. Aquapolis is an example of a free-floating city.

T F 2. The Conshelf Habitats and the Sealab I were all built in order to test human adaptability to life in the sea.

T F 3. Sealab I stayed under the sea for 9 days.

C. Answer the following questions.

1. What are basic human needs according to the text?

   a) _____

   b) _____

   c) _____

   d) _____

2. How is sewage disposed of in Aquapolis?

   _____

   _____.

3. What would the advantage of free-floating cities be?

   _____

   _____.

4. Write two of the drawbacks that undersea miners who inhabit floating cities would suffer from.

   a) _____.

   b) _____.

5. How can humans be affected psychologically if they live deep under the sea?

   _____

   _____.

23 IQ OR EQ?

1 "If you are lucky, your looks, the right contacts, and a presentable set of qualifications might get you on the first step of the career ladder. However, it's some other qualities that will lift you to the top. While your IQ (intelligence quotient) might get you hired, it's your EQ (emotional quotient) that will get you promoted, says Daniel Goleman in his book *Emotional Intelligence*, which became a best seller in just two weeks after being published in 1999. Like IQ, EQ claims to measure intelligence, but EQ cannot be calculated in numbers. It is a complex mixture of the qualities that make us who we are. Where IQ claims to measure pure brainpower, EQ embraces all-important factors such as sociability, optimism and empathy, qualities that gained significance in the 1990s-working environment.

2 Co-operation, communication, and the ability to listen to others and to speak one's mind are all important aspects of social interaction in modern business, and the most productive workers tend to be those who are good at motivating themselves and working within a team — not necessarily the ones who are 'the most **intelligent on paper**'. People with high IQs may be able to solve the most complicated mathematical formula or scribble symphonies on the back of a cornflakes packet, but they usually tend to be at a bit of a loss when it comes to understanding how to behave in company – not to mention being rather boring to have at parties.

3 According to Geraldine Bown, Chief Executive of the Domino Group, a human resource management consultancy, one of the most exciting findings to come out of the EQ discovery is the fact that high EQ qualities are **those** traditionally associated with a feminine or "soft" approach to management. "Now that training gurus are talking about how people need to get in touch with their intuitive selves, they are sending senior male managers on courses to learn how to understand their own feelings," she says. "And, all the time, they have organisations full of women already well in touch with **theirs**! It's just these qualities that will be advantageous in the future".

4 Beverly Alimo, Senior Lecturer in Organisational Psychology at the Nuffield Institute for Health has researched leadership qualities in men and women. Her work shows that women are more likely than men to share power and try to enhance other people's self-confidence. What is more, this EQ-driven style of leadership is so much better suited to modern organisations. "We know women are more likely to exhibit a real understanding of human behaviour," she says. "They think through the consequences and the effect on others before **they** act."

5 According to Dr. Alexis Hallam, Occupational Consultant Psychologist at Career Analysts, the main aspect of emotional intelligence is self-awareness. Thinking about how you feel improves your ability to work well. Really understanding how you feel and analyzing emotions about your work could also help you make better decisions about your career. "Most people go for extra qualifications to break through career barriers," she says. "What they don't understand is that in order to move up through organizations, more than extra qualifications and pure brain power is needed." Therefore, next time you feel inadequate because you know you'll never be a rocket scientist, remind yourself that you may, in fact, be cleverer than you think.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. includes (para. 1) : _____
2. improve (para. 4) : _____

B. What do the following refer to?

1. those (para. 3) : _____
2. they (para. 4) : _____

C. Complete the missing parts using the information in the text.

1. _____ and _____ were the two examples of human qualities that started to be favoured by company managers in the 1990s.
2. Social interaction, which has an important place in modern business, is mainly based on factors such as _____ and _____.
3. Today, senior male managers are sent on courses so that they _____.
4. While making decisions about your career, you should (a)_____ and (b)_____.

D. Answer the following questions.

1. What kind of workers are the most productive ones in today's business world?

   _____

   _____.

2. What does the writer mean by "being intelligent on paper" (para. 2)?

   _____

   _____.

3. According to Dr. Alexis Hallam, what is the most important factor to break through career barriers?

   _____

   _____.

E. Mark the best choice.

1. Which of the following can be inferred from the text?

   a) People with high IQs always have the chance to get promoted.
   b) In modern business, people with high EQs are not preferred much.
   c) High EQ qualities are observed more among women than men.
   d) People with high IQs are the most popular ones at parties.

2. The writer's attitude towards EQ is _____.

   a) reserved
   b) neutral
   c) emotional
   d) positive

24 BGM: MORE THAN IT SEEMS

1 Elevator or background music (BGM), which is often referred to as "Muzak," dominates our world. It is easier to think of places that lack BGM than to list all those where it is found. Most establishments where we purchase goods, services, food, or drink have BGM. Many workplaces like factories or offices have it, too. BGM is currently being marketed for the home in digital stereo as well.

2 BGM is not a modern invention. It has been in demand since people started recording music. Moreover, contrary to common belief, it is not composed only by second-rate composers but also by world-famous composers: Handel, Mozart, Beethoven, and other masters produced music that was intended for "background" listening, often for dinner parties of the aristocracy. One major difference between former times and recent times is that today BGM is more affordable and available. The widespread and increasing presence of commercial BGM shows that BGM is very effective in changing human behavior. For example, one study of the effectiveness of music in supermarkets showed that the use of slow music increased sales. Shoppers stayed in the store longer and purchased more. The average gain of each supermarket was between $12,000 and $16,000, an increase of nearly 40%.

3 Why might the use of music be so effective throughout society? One very strong possibility is the powerful influence of music on the communication and creation of emotions and moods. Moreover, music may provide a form of non-verbal communication whose message cannot be expressed in words. Thus, music can rapidly and powerfully set moods in a way that cannot be achieved by other means.

4 Moreover, sound can spread through a place and reach all potential audiences simultaneously. This is something achieved by visual images only in special circumstances, as in a cinema. However, here too, BGM has an important role. If you think for a moment, you will probably realize that without music, the impact of a movie would be dramatically reduced. Moreover, researchers have shown that filmed events can be remembered significantly better when **they** are accompanied by music, particularly music that fits the mood of the visual images.

5 BGM is also effective in altering and directing people's opinions. For example, market researchers, who advise advertising agencies and their clients, make a clear distinction between purchasing situations: **some** require the use of high cognitive processes while others require low cognitive processes but with high emotional involvement. What do jewelry, sportswear, cosmetics, and beer have in common? They are rated as fitting the latter category, i.e., not much thought but plenty of feelings. Music has been shown to be quite effective in increasing the purchase of these products. On the other hand, music seems to be much less effective when one is trying to sell a PC, a camera, or insurance, which are "high cognitive" items.

6 The fact that BGM has strong effects on behavior by communicating moods and emotions is supported by studies like those proving the impact of music on the purchase of consumer goods. Thus, we should maintain an awareness of the powerful effects of music on human emotions.

A. What do the following refer to?

1. they (para. 4) : _____
2. some (para. 5) : some _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. buy (para. 1) (v) : _____
2. ways (para. 3) (n) : _____
3. changing (para. 5) (v) : _____

C. Answer the following questions.

1. Why does the writer state the fact that Handel, Mozart, and Beethoven also produced background music?

   _____

   _____.

2. According to the study of the effectiveness of music in the supermarkets, how did BGM affect the sales and why?

   _____

   _____.

3. Why is music sometimes more effective than words?

   _____

   _____.

4. What is the role of BGM in a movie?

   _____

   _____.

5. According to market researchers, what kind of goods can be sold more effectively with the help of music?

   _____

   _____.

25 ANCIENT ARTIFACTS AND ANCIENT AIR

1 Archeologists made an exciting discovery in Egypt in 1954. During an excavation* near the base of the Great Pyramid, they uncovered an ancient crypt, or an underground room. They believed that this discovery would help us understand Egypt's past. They also hoped that it would give us important information about the future.

2 This crypt was a tomb (i.e. a burial place) for a dead Egyptian king. Historians believed that the Egyptians buried their kings with two boats: one to carry the body and **the other** to carry the soul. This was one of their religious customs about death. Therefore, the archeologists expected to find two boats inside the crypt. As they opened the crypt, they smelled the scent of wood. The ancient Egyptians had closed the room so effectively that the aroma of the cedar wood was still there. Inside the crypt, archeologists found a 4,600-year-old boat that was in almost perfect condition. In addition, they found another crypt next to the first one. Archeologists and historians believed that this crypt contained the second boat. If so, they would have better information about the past. They would be sure about the religious custom of burying kings with two boats.

3 However, this was not the only information they hoped to find. They wondered if the air in the two rooms contained something special that helped to preserve the wood from changing. Researchers hoped to find some clues about the future by carefully examining the air in the second crypt. They thought that this information could help them in the preservation of ancient artifacts (objects) in museums throughout the world. When the archeologists opened the first crypt, all the old air escaped. They wanted to recover the air in the second crypt to compare **it** with the present air, and then examine the differences, especially differences in the level of carbon dioxide. Careful planning would be necessary in order to open the second crypt and save the air. In fact, it took years to plan the excavation and to design and make the equipment necessary to open the second crypt and collect the air inside it.

4 Finally, in October 1986, an international team of scientists and archeologists, using special equipment, opened a hole in the roof of the crypt. They sealed the hole they had made. That is, they carefully closed it so as to prevent the air inside the second crypt from escaping. Then, they took an air sample. The air inside was the same as the one outside. The scientists were very disappointed but they continued working to see what was inside the crypt. Attached at the end of a long rope, a light and a camera were lowered through the small hole, and the archeologists looked at the inside of the room on a television monitor. The second boat was really there!

5 After the scientists and archeologists took samples of the air inside and photographed it completely, they closed up the hole in the roof and left the crypt as they had found **it.** Although they were disappointed about their findings of the air inside the crypt, they were able to prove the Egyptian custom of burying kings with two boats. More importantly, they practiced a new, nondestructive approach to archeology: investigate an ancient location, photograph it and leave it untouched. After examining the photographs **they** had taken, scientists and archeologists realized that the second boat was not as well preserved as the first one. They thought that this might be due to the construction of the museum after the first excavation. After archeologists had opened the first crypt years ago and removed the boat, the Egyptian government had built a museum on the site of the first boat. During the construction of the museum, the vibrations from the heavy machinery had probably damaged the second crypt and destroyed the seal, so the second boat was not in perfect condition.

6 The investigation of the second chamber taught archeologists a valuable lesson. New excavations will not only use modern technology but also follow the idea of preserving the entire location for future studies.

*** excavation:** removing earth that is covering very old objects buried in the ground

A. What do the following refer to?

1. the other (para. 2) : the other _____
2. it (para. 3) : _____
3. it (para. 5) : _____
4. they (para. 5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Archeologists and historians did not know anything about the Egyptian religious custom of burying kings with two boats until they opened the crypt.

T F 2. Archeologists wanted to open the second crypt because they believed that they would find the dead body of an Egyptian king in it.

T F 3. Archeologists did not use any special techniques to preserve or analyze the air in the first crypt.

T F 4. Only Egyptian scientists and archeologists participated in the excavation of the second chamber.

T F 5. The scientists thought that the air inside the second crypt would be different from the one outside.

T F 6. Today, people can see the second boat removed from the crypt in a museum in Egypt.

C. Mark the best choice.

1. The excavation of the second crypt was different from the excavation of the first one because archeologists _____.
   a) got information about how to preserve ancient artifacts in museums
   b) used a new and nondestructive method
   c) went into the crypt themselves
   d) were able to reach the 4,600-year-old boat in the crypt
2. According to the archeologists and scientists, the boat found in the second crypt was not in very good condition probably because _____.
   a) they themselves had destroyed the seal of the crypt during the excavation
   b) the Egyptians had not used durable material while constructing it
   c) ancient Egyptians had not closed the room effectively
   d) the crypt had been damaged during the construction of the museum

26 JUST AS GOOD AS THE ORIGINAL?

1 In 1979, the painter Tom Keating was arrested and charged with **forgery.** He was accused of faking and selling a painting by Samuel Palmer, an early nineteenth-century British artist. Everyone in the art world was shocked when Keating admitted faking more than 2,000 paintings by various artists over a period of 20 years. He couldn't remember the exact number. Nor could he remember whom he had sold them to, which meant that many of his fakes could not be traced. As a young man, Keating had been employed by art dealers to make copies of paintings by well-known artists whose original paintings sold for high prices. He was paid very little for this work and assumed that his paintings were also being sold for low prices because they were copies. He then discovered by chance that the dealers who employed him were selling his copies as originals for hundreds of times the price that they paid him. This experience made him very angry, and he decided to teach them a lesson in his own way. He set about producing large numbers of fakes by over 100 artists as he was sure that most art dealers and art critics could not tell the difference between the genuine and the fake.

2 Keating had a rather casual attitude to his paintings. He often gave them away or sold them cheaply. Many unsuspecting people thought they had picked up a bargain from him. In fact, he had not made himself rich, but he took great delight in fooling so-called experts. What he wrote on the **canvas** also reflected his sense of humor. Before starting to paint, he would write the word 'FAKE' or 'KEATING' or sometimes a vulgar word. The word would be covered by paint but would show up if anyone took the trouble to X-ray the paintings. Having X-rayed paintings, some famous museums discreetly removed Keatings from their walls. Although he faked paintings by many artists, Keating specialized in the works of Samuel Palmer. Unfortunately, Palmer's genuine **output** was quite small, much less than Keating's, and soon the number of 'previously unknown' or 'just discovered' Palmers coming on to the market began to arouse suspicion. He admitted in court that he was rather ashamed of the particular painting he had been charged with faking: it wasn't up to his usual standard. He admitted everything and took great delight in showing the greed of the dealers. They had once **exploited** him and cheated their customers. He did not go to prison, as the charges against him were dropped because of his poor health. After the trial, which had received a lot of publicity, he became very well-known and appeared on television. He actually painted a Samuel Palmer in about half an hour in the television studio, with the whole process being filmed. Later, he had his own television series in which he taught his painting techniques. There is no doubt that Keating had remarkable **talent,** and at the end of his life he received many orders for his own work. Nowadays, even his fakes sell for quite high prices.

A. Match the words in the left column with the meanings in the right column. Write the letters of the meaning in the blanks provided. There are more meanings than you need.

1. _____ forgery	a) natural ability to do something
2. _____ canvas	b) the total amount of something produced by a person
3. _____ output	c) the ability to see the amusing side of things
4. _____ exploit	d) making an illegal copy of something in order to deceive
5. _____ talent	e) to use something unfairly for one's own advantage
	f) something sold at a lower price than its true value
	g) a piece of framed cloth used by artists for painting on

B. Mark the best choice.

1. It was a kind of shock for the people in the art world to learn that _____ .

   a) Keating couldn't remember the exact number of his paintings
   b) many of Keating's fake copies were lost
   c) Keating had produced thousands of fake paintings by different artists
   d) Samuel Palmer accused Keating of faking his paintings

2. Keating became very angry when he found out that _____.

   a) the art dealers who employed him sold his paintings at very low prices
   b) he was going to get very little money for his paintings
   c) the art dealers were selling his paintings without getting his permission
   d) although he had been paid very little for his paintings, they were being sold at high prices

3. Keating produced a large number of fake paintings in order to _____.

   a) make a lot of money out of them
   b) fool the art experts who couldn't differentiate between the fake and the genuine
   c) make people feel happy when they bought a bargain from him
   d) give them to his friends as presents

4. Some famous museums removed Keating's paintings from their walls because _____.

   a) they had realized that they weren't the originals
   b) the vulgar words in his paintings made the viewers angry
   c) it would be too expensive to X-ray all his paintings
   d) the word 'FAKE' was seen in the paintings

5. In court, Keating said that he was_____ .

   a) surprised that some 'previously unknown' paintings had been discovered
   b) delighted to show people how greedy the art dealers were
   c) surprised that he wouldn't be sent to prison
   d) ashamed of his paintings because they were of a lower standard than Palmer's

6. Keating became very well-known after _____.

   a) he had painted one of Palmer's paintings in half an hour
   b) his own painting techniques were shown in a TV series
   c) the trial, which attracted a lot of public attention
   d) he had received many orders for his own work

27 THE HEALING POWER OF MUSIC

1 Marianne Strebely, severely injured in a car accident, lay in the operating room of St. Luke's Hospital in Cleveland, awaiting anesthesia. Surrounded by a surgical team, Strebely was hooked up to a computer that monitored her heart rate and brain waves. She was also hooked up, by earphones, to a tape recorder playing Vivaldi's *The Four Seasons.* During the operation, the surgical team listened to Mozart and Brahms from another tape recorder. "Music reduces staff tension in the operating room," says Dr. Clyde L. Nash, Jr., Strebely's surgeon, "and also relaxes the patient." Nash is one of many physicians around the country who have found that music, used with conventional therapies, can heal the sick. Dr. Mathew H. M. Lee, acting director of the Rusk Rehabilitation Institute at New York University Medical Center, adds, "We've seen confirmation of the benefits of music in helping to avoid serious complications during illness, enhancing patients' well-being, and shortening hospital stays."

2 How does music help? Some studies show it can regulate blood pressure and respiration rates, thus lessening physiological responses to stress. Other studies suggest music may increase production of endorphins (natural pain relievers) and S-lgA (salivary immunoglobulin A). S-lgA speeds healing, reduces the danger of infection, and controls heart rate. Music therapy is proving especially effective in three key medical areas:

3 Pain, anxiety, and depression: "When I had my first baby," says Susan Koletsky of Shaker Heights, Ohio, "I was in difficult labor for two days. The second time around, I wanted to avoid the pain." Relaxing jazz calmed her in the delivery room; Bach and Beethoven paced her during contractions; finally, the closing movement of Brahms's Symphony No.1 energized her while she was giving birth. "The music produced a much easier experience," she claims. The amazing power of music as a way of therapy can also be observed on cancer patients during their bout with the illness. These people often brood in their hospital rooms, refusing to talk with doctors and nurses. "The music therapy helps them to have a positive outlook. **This** makes it easier for them to communicate and encourages them to cooperate more in their treatment," says Dr. Nathan A. Berger, director of the Ireland Cancer Center at University Hospitals of Cleveland.

4 Mental, emotional, and physical handicaps: The Ivymount School in Rockville, Illinois, helps youngsters with developmental problems ranging from emotional disturbances to mental retardation, autism, and learning disabilities. Ruthlee Adler, a music therapist for more than 20 years, uses songs and dance to help the children learn and cope. "While the seriously handicapped may ignore other kinds of stimulation, they respond to music," she says.

5 Neurological disorders: Dr. Oliver Sacks, whose work with sleeping-sickness victims led to the book and movie *Awakenings,* reports that patients with neurological disorders who cannot talk or move are often able to sing, and sometimes even dance, to music. "The power of music is remarkable in **such people**," Sacks observes. In a group session for elderly patients at Beth Abraham Hospital in New York City, a 70-year-old stroke victim sat by himself, never speaking. One day, when therapist Connie Tomaino played an old Jewish folk song on her accordion, the man hummed. Tomaino played the tune regularly after that. Finally, the man sang some of the words. "Before you knew it," says Tomaino, "he was talking."

6 Few people understand the therapeutic powers of music better than Cleveland music therapist Deforia Lane. Ten years ago, during her own struggle with cancer, singing helped her relax and take her mind off the disease. Since then, she has used that experience to help others. "Music is not magic," says the 44-year-old therapist with the warm smile and rich soprano voice. "But in a hospital or at home, for young people or older ones, it can be a potent medicine that helps us all." Of course, music's therapeutic benefits aren't only confined to those who are ill. Apart from the simple enjoyment that music provides, we should see how much it could help us in our daily lives. It is obvious that, during the day, music gives our minds a break as it lets us focus on something else for a few minutes and helps us to cope with daily problems more effectively. To gain the full benefit of music, all we have to do is to work it into our daily schedule.

A. What do the following refer to?

1. This (para. 3) : _____
2. such people (para. 5) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. stress (para. 1) (n.) : _____
2. fight (para. 3) (n.) : _____
3. restricted (para. 6) (adj.) : _____

C. Answer the following questions.

1. Why does Cleveland music therapist Deforia Lane understand the therapeutic power of music better than other people?

   _____

   _____.

2. According to the writer, how could music help us in our daily lives?

   a) _____

   b) _____.

D. Fill in each gap using the information in the text.

According to Dr. Mathew H. M. Lee, music has a healing power because, as a doctor, he has experienced how music can (1a)_____,

(1b)_____ and (1c)_____.

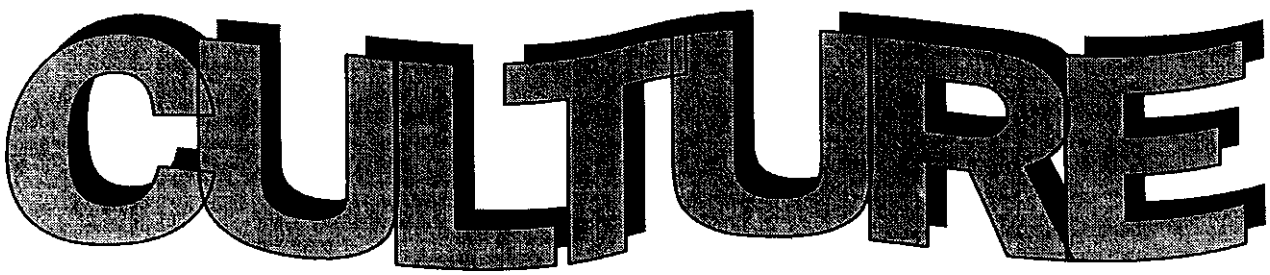
Some studies suggest that music may also lessen physiological responses to stress by (2a)_____ and (2b)_____.

Moreover, the body (3)_____ endorphins, which are (4)_____, and (5)_____, which has an important role in the healing process.

E. Mark the best choice.

1. The writer's attitude towards the use of music in medicine is _____.

   a) critical
   b) humorous
   c) approving
   d) pessimistic


CULTURE

28 KWANZAA

1 Kwanzaa is a modern festival celebrated by African Americans. It comes from ***traditional*** African agricultural festivals. In fact, the name 'Kwanzaa' comes from the Swahili word for 'first fruit'. This modern festival started in California in the United States in the 1960s because some black people wanted to celebrate their original history and culture in their new country. Today, black people all over the country take part in this special event as they want their children to value their African-American history. Kwanzaa is not a religious festival, but a festival that celebrates several important ideas or principles—principles like unity, ***cooperation*** and creativity. The festival lasts for seven days starting on 26 December. People light candles, give gifts, and talk about one special principle each day. On each night there is a dance, and on the final night there is a big feast. That is, people have a large special meal all together.

2 As Kwanzaa becomes popular, it is also becoming more ***commercialized***; a lot of people are making money from this festival. There are now Kwanzaa cards, books on Kwanzaa, Kwanzaa poetry and recipes. Parents are buying more expensive gifts for their children. Now there is also "Nia Umoja', a kind old man, rather like Father Christmas. It was first thought of by the ***organizers*** in the late 1980s to attract children to the festival.

3 The festival may at first seem to be held just for fun, but actually the principle of cooperation helps the serious side of Kwanzaa because people collect food and clothes for the poor. Kwanzaa is an interesting balance of African and modern American ***influences***.

A. Mark the following statements True (T) or False (F).

T F 1. Kwanzaa is very important for the African Americans because of its religious nature.

T F 2. Kwanzaa begins on December 26 and lasts for a week.

T F 3. People have special dinners every night during the festival.

B. Mark the best choice.

1. The first paragraph is mainly about _____.

   a) the African-American history
   b) the principles of Kwanzaa
   c) the characteristics of Kwanzaa
   d) the importance of culture and history for African-Americans

2. The second paragraph is mainly about the _____.

   a) gifts for Kwanzaa
   b) popularity of Kwanzaa
   c) adults and children at Kwanzaa
   d) commercialism at Kwanzaa

C. Answer the following questions.

1. Where do people celebrate Kwanzaa?

   _____

   _____.

2. Why did the festival organizers create 'Nia Umoja' in the 1980s?

   _____

   _____.

VOCABULARY PRACTICE:

A. Match the words with the definitions. Put the letters on the lines provided.

_____ 1.	traditional (adj.) (para. 1)	a) involved with buying and selling
_____ 2.	cooperation (n.) (para. 2)	b) following customs
_____ 3.	commercialized (adj.) (para. 2)	c) someone who arranges an event or activity
_____ 4.	organizer (n.) (para. 2)	d) working together
_____ 5.	influence (n.) (para. 2)	e) the power to have an effect on people or things

B. Use a dictionary to find the different forms of the following words and then use the most suitable form to complete the sentences given.

Verb	Noun	Adjective	Adverb
----------		*traditional*	
	cooperation		
	1. organizer *2.*		----------
	influence		----------

1. The Principal is planning to _____ a meeting between the teachers and students.
2. The drug smuggler finally agreed to _____ with the police.
3. Teachers should be convinced to combine _____ teaching with modern technologies.
4. Children as young as 2 years old may be _____ by their parents' tobacco habits
5. The _____ panicked when they saw that there weren't enough seats for all guests.
6. The teacher is very grateful to the students as they were very _____ during the observation by the inspector
7. A well-_____ person is more productive, has more free time and experiences less stress.
8. _____, girls in India marry at a young age.
9. Many people wanted to help with the _____ of the wedding.
10. The chairperson thanked all the teachers for their _____ and patience, as well as for their contributions
11. One of the most _____ leaders in world history was Atatürk.

29 PICKING APPLES — A NEW ENGLAND TRADITION

1 Throughout New England, people know that fall has arrived when the MacIntosh apples begin to turn red in the orchards in early September. After the "mac" apples come the Cortlands, the Empires, the McCoons, and, finally, the Golden Delicious. All through September and October, the aroma of **ripe,** fully grown, apples fills the air on sunny days—an invitation to come picking.

2 A day of apple picking is, in fact, a popular way to spend a fall day in New England. From Connecticut to Maine, it is generally possible to find an orchard within an hour's drive, and the trip is well ***worth*** the time. Not only will it ***provide*** you with plenty of the freshest apples to be found, but it will also give you a chance to take in some sunshine and autumn scenery and get some exercise. The picking is usually best done by adults. Children should not climb up into trees and risk hurting themselves and ***damaging*** the trees—younger members of the family can have fun just romping around the orchard.

3 The picking may not take long—two hours at most—but many of the orchard owners now offer other kinds of entertainment. At some orchards, you can go for pony rides or ride on a hay-filled wagon. You may be able to watch a horse-show or visit the cows or sheep in the pasture. You may also decide to take a hike and have a picnic along a country lane. Some orchards have set up refreshment stands in their barns where you can taste ***local*** products, such as apple cider and homemade baked goods.

A few hints:

1. **Call before you go.** Check the local newspaper for the names and locations of orchards which offer pick-your-own apples. Then phone to find out their hours, since **they** may change from one orchard to another.
   You should also ask about the rules ***regarding*** bags and containers. Most orchards provide bags, but a few do not, and **some** will ***allow*** only certain types of containers.
2. **Check in when you arrive.** Before you start picking, you should check with the orchard owner about which varieties are ripe in that period, and which parts of the orchard are open for picking. Respect the owner's ***privacy***, and do not go where you are not allowed!
3. **Pick carefully.** When you pick the apples, treat them gently. Some orchard owners advise pickers to treat the apples as though they were eggs. If **they** bruise, they will spoil more quickly. The technique for picking is simple: hold the apple firmly but not too tightly and twist it off the branch, taking care to leave the stem attached, since ***removal*** of the stem will also cause rot.
4. **Don't waste apples.** Be careful to pick only the apples you need. You may be **tempted** and pick too many of the delicious looking fruit since you are attracted to it, and then find that the apples go bad before you can eat them. Since the apple season lasts for almost two months, you can always return for another load of apples later.
5. **Keep what you pick!** Once you take an apple off the tree, you must keep it. It's not fair to the orchard owner to leave apples on the ground where they will quickly spoil.
6. **Store your apples properly.** Put your apples in the refrigerator as soon as you get home. Studies by the Vermont Department of Agriculture have shown that apples last seven times longer when kept under refrigeration.

4 If you do pick too many apples to eat in a week or two, you could try freezing them to use later in pies and cakes. Simply peel, core, and slice **them**, and then put them in airtight plastic bags. They may be kept in the freezer for up to a year.

5 Write to the Department of Agriculture in the state that interests you, and ask it to send a list of orchards that offer pick-your-own.

A. What do the following refer to?

1. they (hint 1) : _____
2. some (hint 1) : _____
3. they (hint 3) : _____
4. them (para. 4) : _____

B. Guess the meanings of the following words using the clues in the text.

1. ripe (para. 1) probably means : _____
2. tempted (hint 4) probably means : _____

C. Mark the following statements True (T) or False (F).

T F 1. The apples that turn red last in the orchards of New England are the Golden Delicious.

T F 2. You can pick apples from all over the orchards.

T F 3. You can leave some of the apples on the ground to help the orchard owner to collect them later.

D. Fill in each gap with ONE word using the information in the text.

The article recommends picking apples all through September and October when the inviting (1)_____ of the apples attracts people. Driving to the orchards, which are situated between Connecticut and Maine, takes only an hour, and the trip gives you the chance to pick the (2)_____ apples. You also have the chance to enjoy the (3)_____ and the wonderful scenery; in other words, the great colors of the season. In addition to picking, you can find different types of (4)_____, such as riding on wagons, watching horse-shows, and tasting the local products.

The article also suggests some valuable advice to follow. After finding an orchard, you should phone the owner and find out its hours. Another hint is the rules about (5)_____. Some owners require certain types of these. As for picking, you should be careful. There is a simple technique for it. You should pay attention to the stem, and you should let it remain (6)_____. Another important point is not wasting the apples. Just pick the ones you need. The picking season is long, and it is possible to (7)_____ to the orchards later. Finally, you are advised to store the apples you have picked properly. If you want to try picking apples, you can get a (8)_____ from the Department of Agriculture with the names of the orchards.

VOCABULARY PRACTICE:

A. The following words are bolded and italicized in the text. Write their definitions using your dictionary.

Word	Definition
1. worth (adj.)	
2. provide (v.)	
3. damage (v.)	
4. local (adj.)	
5. regarding (prep.)	
6. allow (v.)	
7. privacy (n.)	
8. advise (v.)	
9. removal (n.)	
10. store (v.)	

B. Fill in the blanks with the correct form of the words in the box.

removal	advise	worth	allow	regarding

I have always thought that Japan is (1)_____ a visit. Luckily, I am going there next month to attend a conference. One of my friends, who has already been there, said that Japanese culture is quite different from ours and (2)_____ me to learn about the social rules. Therefore, I have done some research (3)_____ social life there. Lots of these rules have surprised me, but there are also some similarities. For example, when you go to someone's house, (4)_____ of shoes is obligatory. In other words, you are not (5)_____ to enter with your shoes on.

C. Mark the choice that does not go with the underlined words below.

1. provide	a) hobby	b) support	c) money	d) information
2. damage	a) badly	b) slightly	c) extremely	d) seriously
3. local	a) time	b) people	c) car	d) food
4. privacy	a) protect	b) damage	c) limit	d) invade
5. store	a) safely	b) carefully	c) separately	d) slowly

D. Fill in the blanks with the words from exercise C.

There are many programs available for students of different ages to study in Japan. These programs (1)_____ opportunities for students from overseas to learn Japanese culture.

In these programs students are placed with carefully selected (2)_____ host families. Sometimes students experience some cultural differences in family life and there can be some misunderstanding between international students and host families. In order not to let such misunderstanding (3)_____ the relations between both parties, the program organizers arrange orientation sessions for students. In these sessions they are informed about some cultural differences. For instance, in Japan, as the sense of (4)_____ doesn't exist, the host mother might enter the students room to clean without getting permission.

30 MEN IN SKIRTS

1 In Europe men do not wear skirts, but the Scottish national costume for men is a kind of skirt. It is called a 'kilt.' The Scottish are proud of their country and its history, and they feel that the kilt is part of their history. That is why a lot of men still wear kilts at traditional dances and on national holidays. They believe they are wearing the same clothes that Scottish men always wore in the past.

2 In the early days, Scottish men wore a kind of long shirt that went below their knees. They wore long socks and a big wool blanket around their shoulders. These clothes were warm and comfortable for working outside on a farm, but they were not so good when men started working in factories in the 1730s, so a factory owner changed the blanket into a skirt: the kilt. That was the first kilt.

3 In the late 1700s, Scottish soldiers in the British Army began to wear kilts. One reason for this was national feeling: The Scottish soldiers wanted to look different from the English soldiers. They fought hard and became famous and in the early 1800s, men all around Scotland began to wear kilts.

4 The first kilts had colorful stripes going up and down and across. In Scotland, this pattern is called a 'tartan.' Later, the cloth with this pattern was also called tartan. The pattern of all the kilts was the same, but they had different colors which were important to Scottish families. By the early 1800s, most Scottish families had special colors for their kilts and the men always wore these colors on their kilts.

A. Mark the following statements True (T) or False (F).

T F 1. Today, very few Scottish men wear kilts on special occasions.

T F 2. Scottish men were comfortable in their long shirts until they started working in factories.

T F 3. The Scottish and English soldiers in the British army wore different types of uniforms.

T F 4. The kilt became more popular in Scotland after the Scottish soldiers' success in wars.

T F 5. All Scottish families wore the same color kilts.

B. Fill in each gap using the information in the text.

The kilt, the (1)_____ of Scottish men, is a kind of skirt. Before kilts, Scottish men wore long shirts with long socks. They also wore a(n) (2)_____. It was made of (3)_____ and people wore it around their shoulders. Later, in the 1730s, (4)_____ used the blanket to make the first kilt. All kilts had the same pattern. (5)_____ is the name of the Scottish kilt pattern and also the name of a cloth with this pattern.

31 RITUALS OF MARRIAGE IN AMERICAN CULTURE

1 In the US, before a young couple gets married, there are two social rituals which are usually ***performed*** before the day of the wedding. For young women, **it** is the bridal shower and for her prospective husband, it is the stag party.

2 The bridal shower is the more conservative of the two rituals, with the future bride as the centre of attention. It is ***customarily*** organized by her sister or best friend and ***attended*** only by women, usually family and friends. It is usually organized as a surprise party, and the bride doesn't know its time and ***location*** until the very last minute. Everyone brings along a gift which will be useful in setting up a home. In recent years, however, it has become an acceptable custom to give a monetary gift sealed in an envelope.

3 For the future husband, the stag party may contain more excitement and fewer gifts. This will be his last chance to have an all-night party in town with his close friends. Only men are invited to this party, and rightly so, since some of the pleasures of the evening may not be ***appropriate*** for a proper woman's taste. In most cases, however, **it** may be nothing more than a night of bar-hopping and talking about the good times shared with friends in the past.

4 In addition to bridal showers and stag parties, there are other rituals and traditions concerning marriage in America. For example, the groom must never see his bride in her wedding dress before the ceremony. In some cases, **they** must not even speak or meet with one another the day before the wedding. Rice throwing at a wedding is also a popular tradition because rice is an ancient symbol of ***prosperity***. Another reason may be the very ancient superstition that at the wedding there are evil spirits which are believed to be flying about the couple. Throwing rice at them could keep these evil spirits busily eating and away from the groom, of whom they are jealous.

A. What do the following refer to?

1. it (para. 1) : _____
2. it (para. 3) : _____
3. they (para. 4) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. future (para. 1) (adj.) : _____
2. related to; regarding (para. 4) (prep.) : _____

C. Answer the following questions.

1. What is the purpose of the gifts given at the bridal shower?

   _____

   _____.

2. What do men usually do in a stag party?

   _____

   _____.

VOCABULARY PRACTICE:

The following words are bolded and italicized in the text. Use a dictionary to write their definitions and different forms and then use the most suitable form to complete the sentences given.

Word	Definition	Different forms
perform (v.) (para. 1)		

1. Zeki Müren is regarded as the best _____ of Turkish Art Music of all times.
2. Some athletes take drugs to improve their _____.
3. Computers are very important in the business world as they can _____ various tasks very effectively.

Word	Definition	Different forms
customarily (adv.) (para. 2)		

4. Kissing older relatives' hands during religious holidays is an old _____ in Turkey.
5. In Germany, it is _____ to share the bill when friends go out for a meal.
6. The parents are _____ expected to buy new clothes for their children for religious holidays.

Word	Definition	Different forms
appropriate (adj.) (para. 3)		

7. If a person wants to make a good impression in a job interview, s/he should dress _____.
8. In Western culture, it is not _____ to ask people how much they earn.

Word	Definition	Different forms
attend (v.) (para. 2)		

9. Mrs. Hurley takes _____ regularly and she is very strict about it.
10. Hundreds of people _____ the funeral of the soldier who had been killed by terrorists.

Word	Definition	Different forms
location (n) (para. 2)		

11. Their flat is very convenient for the shops. It is _____ in the city centre.
12. The hotel was in a lovely _____ overlooking the lake.

Word	Definition	Different forms
prosperity (n) (para. 4)		

13. Crime rate is high even in _____ countries like the USA.
14. A country's future _____ depends, to an extent, upon the quality of education of its people

32 ABORIGINES: THE NATIVE AUSTRALIANS

1 The Australian Aborigines came to Australia from Indonesia 50,000 years ago. Scientists think that at one time there was a land bridge between Australia and Asia. They believe that Aborigines traveled south over this bridge. Then there were changes in the Earth and the land between Australia and Asia became islands.

2 Australia is a difficult land to live in. It has no river systems and it does not rain very much. But the Aborigines learned to live in the desert. They hunted animals and insects for food. In the cold areas, they wore warm clothes made from kangaroo skins. They usually slept outside by a fire with their dogs nearby.

3 Aborigines were nomads: they went from one place to another. They did not think they owned the land, but they taught their children that they belonged to the land. The Aborigines didn't have a written language. Instead, they had an oral tradition. There were 600 groups, and each spoke its own language.

4 There were 300,000 Aborigines when white people arrived in Australia. The 'new' Australians began to build and live on tribal lands, and the number of Aboriginal people fell greatly. Today, most Aborigines live in cities and towns or in isolated places.

A. Mark the following statements True (T) or False (F).

T F 1. Scientists think that the Aborigines built a bridge between Australia and Asia.

T F 2. The Aborigines used kangaroo skin for clothes.

T F 3. The Aborigines built special houses to sleep in at night.

B. Answer the following questions.

1. Where did the Aborigines live before they came to Australia?

_____

_____.

2. Why is Australia a difficult place to live in?

_____

_____.

3. How did the Aborigines find food?

_____

_____.

4. How many languages were there among the Aborigines?

_____

_____.

33 THE SHAKERS

1 "Shake it up baby. Twist and shout," was sung by Beatles, but it was practised almost two hundred years earlier by a religious group called "The Unified Society of Believers." This religious group, led by Ann Lee, came to America from Manchester, England, in 1774 looking for a place to freely practise their religious ***belief***. Eventually, **they** became known as "The Shakers" because the believers worshipped by singing, dancing and whirling around.

2 The Shakers were a peaceful ***community*** that welcomed people of all races. They were against war and lived in their own villages separate from the rest of society. They lived communally, that is, sharing their property and working for the common good. The qualities they **admired** were kindness, generosity, modesty, purity, cleanliness, and love for humanity. Their villages of plain white houses were very neat. Even the roads were swept clean.

3 The Shakers are probably best known for their celibacy* and hard work. Single men and women did not marry. Married couples who joined the Shaker community had to live in separate houses. In the Shaker community, males and females lived and worked separately as Brothers and Sisters. **They** never shook hands or touched each other in any way. When conversation between a man and a woman was necessary, **it** was done in the company of others. Males and females sat opposite each other when they came together once a day for conversation and singing. Even when they danced and whirled around during worship, men and women always kept their distance.

4 As might be expected, the Shaker style of dressing was modest, simple and plain, and their clothes were dark in colour. The women combed their hair back under a cap and wore long dresses with a cloth that covered the chest. Men wore dark pants and simple coats. It was ***extremely*** unusual to see these celibate people wearing bright or attractive clothing.

5 "Put your hands to work and your hearts to God," said Ann Lee to her followers. The Shakers took this seriously and worked very hard. In order to be self-**sufficient**, the Shakers grew their own food, wove their own cloth and made their own tools, utensils and handicrafts. They made chairs, buttons, tubs, baskets, smoking pipes, pens, brooms, brushes, hats, shoes and hand-woven coats. Although simple and plain, these were of the highest quality.

6 Not only were the Shakers **industrious**, but they were creative and inventive as well. Unlike some other religious groups, the Shakers liked technology and labour saving devices. Their long list of inventions and improvements ***includes*** such items as the first garden seeds packaged in paper and machines such as a revolving oven and a wood-burning stove.

7 Although it may seem that the Shaker life was all rules, work and worship, it was not without joy. They spent pleasant hours picking fruit, walking in the woods, going for carriage rides, and laughing together — in separate groups, of course.

8 Over the years, the original Shaker community in New York expanded to twenty-four scattered communities among eight states in the eastern US. Many people were attracted to their peaceful ways and clean crime-free villages. ***Eventually***, the Shakers paid the price for their celibacy: they didn't have any children to carry on their traditions and beliefs, and their numbers became fewer. Today, their villages are museums and their handicrafts are items for collectors.

* celibacy: having no sex, usually because of religious beliefs

A. What do the following refer to?

1. they (para. 1) : _____
2. They (para. 3) : _____
3. it (para. 3) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Married people were not allowed to join in the Shaker community.

T F 2. The Shakers avoided wearing bright and attractive clothes.

T F 3. The quality of the tools and utensils which the Shakers made was not very good.

T F 4. The Shakers were hard working, but they also had time for entertainment.

T F 5. The Shakers lived in New York only.

C. Answer the following questions.

1. Why did the Shakers come to the United States?

_____

_____.

2. What example does the writer give to show that the villages of Shakers were very clean?

_____

_____.

3. What are the Shakers most famous for?

_____

_____.

4. How often did the Shakers meet to talk and sing?

_____

_____.

5. In what way were the Shakers different from some other religious groups?

_____

_____.

6. Why did the Shaker population decrease?

_____

_____.

VOCABULARY PRACTICE:

A. The words in column A are boldfaced and italicized in the text. Find their SYNONYMS in column B and write the letter in the blank provided. ONE word is EXTRA in column B.

A.	B.
1. _____ belief	a) finally
2. _____ community	b) contain
3. _____ extremely	c) confidence
4. _____ include	d) society
5. _____ eventually	e) faith
	f) very

B. The words in column A are boldfaced and underlined in the text. Find their ANTONYMS in column B and write the letter in the blank provided. TWO words are EXTRA in column B.

A.	B.
1. _____ admire	a) appreciate
2. _____ sufficient	b) lazy
3. _____ industrious	c) plentiful
	d) disapprove of / dislike
	e) inadequate

C. Collocations

Mark the choice that does NOT go with the given word.

1.	sufficient	a) time	b) food	c) car	d) money
2.	include	a) home	b) tax	c) information	d) details
3.	community	a) local	b) international	c) necessary	d) industrious

D. Fill in the blanks with a suitable word from exercises A and B.

Ants are common social insects that live in colonies. Within their (1)_____ there is a repertory of activities and behaviors. Their activities (2)_____ gathering and hunting. Ants have a (n) (3)_____ organized life. In the colony, every ant has a job to do, and as each ant knows its place, all duties are performed systematically. The ants are also very (4)_____ . Even 1 % of a colony's foraging worker ants are able to provide (5)_____ food to support the whole colony. After reading about these incredible insects, we can only (6)_____ them and their remarkable social organization.

34 VISITING JAPAN

1 Visiting Japan can be a very interesting experience. Japan is an unusual mixture of the traditional and ultra-modern. **This** can be confusing for the visitor because, although it looks quite Western, Japan is still in many ways very Oriental. For example, whenever you go into a house, you must take off your shoes. Sometimes your host will provide you with slippers. If he doesn't, you walk round in your socks. A visitor should also expect, in more traditional houses, hotels, and restaurants, to eat kneeling down on the floor on a cushion in front of a low table. It's a good idea to get used to eating with chopsticks, but, if you can't manage, ask for a knife and fork. The Japanese are extremely polite and hospitable: you can nearly always find someone who speaks English ready to help you.

2 If you are planning to go to Japan, you should consider the weather. Japan has four distinct seasons. In summer, the country is very hot and humid, so anyone planning a trip **then** ought to take light, comfortable clothes with them. Winter in Japan is cold, but it's not too bad. If you like skiing, especially, going there in January and February is a good idea. Most people agree that the best time to travel in Japan is early-April or late-October. The temperatures are mild, and there is not too much rain at that time.

3 The majority of tourists go to Tokyo, but you ought not to miss the chance of visiting the old capital cities of Kyoto and Nara. From Tokyo you can get to Kyoto in three hours on the 'Shinkansen' super-express. If you are driving, it is important to remember that in Japan you have to drive on the left-hand side of the road. To get round the sights, you can hire a bicycle for 250 yen an hour.

4 For a change from Western-style hotels, you ought to try one of the traditional inns, 'Ryokan.' Instead of a bed, you'll sleep on the floor on a 'futon' mattress and cover spread over the 'tatami' floor mat. To relax at the end of a hard day's touring, you should enjoy a long soak in the 'ofuro'–the traditional Japanese hot bath before trying a delicious Japanese meal.

A. What do the following refer to?

1. this (para. 1) : the fact that _____
2. then (para. 2) : _____

B. Guess the meanings of the following words from the context and complete the sentences with appropriate information from the text.

1. An **inn** is a kind of _____.
2. _____ is called the **'ofuro.'**

C. Mark the following statements True (T) or False (F).

T F 1. If your Japanese host does not have any slippers to give you, then he will allow you to keep your shoes on.

T F 2. In a traditional Japanese restaurant, you cannot eat with a knife and fork.

T F 3. Traveling to Japan in winter is a waste of time because there is nothing to do.

T F 4. Kyoto and Nara were the capitals of Japan in the past.

T F 5. It takes nearly half a day to go to Kyoto from Tokyo on the 'Shinkansen' super-express.

T F 6. A 'futon' is something you can sleep on.

D. Answer the following questions.

1. What is the traditional Japanese way to sit for a meal?

_____

_____.

2. Why will an Englishman probably have no communication problem in Japan?

_____

_____.

3. What is unusual about driving in Japan?

_____

_____.

35 JAPANESE CULTURE

1 Japan is an unusual mixture of traditional and ultra-modern. Although it looks quite western, it is still oriental in many ways.

Lifestyle

2 A lot of Japanese households consist of both one or more traditional Japanese style rooms with tatami floors and modern rooms that usually have wooden floors. Tatami mats on the floors are made of straw and measure roughly 180 cm x 90 cm. You should always take off your slippers and step on tatami mats only in socks or barefoot in order to protect **them** from damage. In traditional homes, people sleep on the floor on a "futon" mattress which is laid on the floor only during the night and kept in a closet during the daytime so the bedroom can then also function as a living or dining room. To relax at the end of a hard day, they enjoy a long soak bath in the "ofuro"–the traditional Japanese hot bath, which is usually next to the kitchen.

Food and Eating

3 In Japan, some restaurants and private houses have Japanese style tables and cushions on the floor. In a traditional Japanese house, a visitor should also expect to eat on the floor on a cushion in front of a low table. The Japanese usually eat with chopsticks but they have knives and forks for visitors. The Japanese say that food must be tasted with the eyes before **it** is tasted with the mouth. The Japanese cuisine offers a great variety of dishes and regional specialties such as rice dishes, seafood dishes, noodle dishes and soy bean dishes. Rice dishes have until recently been the most important food in the Japanese cuisine. Despite changes in eating patterns over the last decades and slowly decreasing rice consumption in recent years, rice remains one of the most important ingredients in Japan today, and can be found in numerous dishes. Sushi is the most famous Japanese dish outside of Japan, and one of the most popular dishes among the Japanese themselves who usually enjoy sushi on special occasions. The Japanese have a tea ceremony called *Sado*. It is a ritual way of preparing and drinking tea. The custom has been strongly influenced by Zen Buddhism. Nowadays, the tea ceremony is a relatively popular kind of hobby. Many Japanese, who are interested in their own culture, take tea ceremony lessons with a teacher. Tea ceremonies are held in traditional Japanese rooms in cultural community centers or private houses.

Traditional Japanese dresses

4 Kimonos are traditional Japanese clothing. Kimonos are made of silk and are usually very expensive. Nowadays, they are worn at formal or traditional occasions, such as funerals, weddings or tea ceremonies. Kimonos can still sometimes be seen in daily life. Kimonos differ in style and color depending on the occasion on which they are worn and the age and marital status of the person wearing them. To put on a kimono needs some practice. Especially tying the belt (obi) alone is difficult, so many people require assistance. Wearing a kimono properly includes a proper hair style, traditional shoes, socks, and a small handbag for women.

A. What do the following refer to?

1. them (para. 2) : _____
2. it (para. 3) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. without anything on your feet (para. 2) (adj.) : _____
2. style of cooking (para. 3) (n.) : _____
3. many (para. 3) (adj.) : _____
4. ceremonial (para. 3) (adj.) : _____

C. Answer the following questions.

1. Why are futons kept in closets?

   _____

   _____.

2. Where do sados take place?

   _____

   _____.

3. Why is help needed to put on a kimono?

   _____

   _____.

D. Mark the best choice.

1. In traditional Japanese homes, _____.

   a) people sit on a cushion at a low table while eating
   b) the mattresses are on beds
   c) the bathrooms are outside the house
   d) the floors are made of straw

2. According to the text, which of the following is **FALSE?**

   a) The Japanese believe that one should look at the food before eating.
   b) The Japanese use less rice than they did before.
   c) It is still possible to see the effects of Zen Buddhism in tea ceremonies in Japan today.
   d) You can see many Japanese women wearing kimonos in the streets.

36 ROMANIES: 1,000 YEARS ON THE ROAD

1 Gypsies in England have an annual fair where horses are bought and sold. In the first week of June, the larger part of Britain's 75,000 gypsy population gathers at the town of Appleby for the famous horse fair for horse dealing. During this time, silver caravans and trailers arrive at the site -- one of the world's very few remaining displays of gypsy culture. Travelers have been coming to Appleby for hundreds of years. References to the fair itself are found as early as 1176 and it is believed that gypsies started to attend **it** in the 13th century.

2 Throughout the year, gypsies travel around Britain, working and taking part in other fairs. From Appleby, the gypsies move on to another town, St Boswell's on the Scotish border, and on to Cambridge- shire to pick strawberries **there**. Then they head for the Stow-on-the-Wold and Barnet fairs. That's it until the next season, which begins with a week of horse racing at Epsom. The Epsom Derby race is the main horse racing event of the gypsy calendar. As the saying goes, "You're not a proper gypsy if you don't go to Epsom."

3 What makes a gypsy? This has proven to be a very difficult question to answer. It seems that the gypsy people left northern India in the 10th century, gradually working their way westwards and picking up parts of different languages and various cultures along the way. The use of the word "gypsy" as a description for Romany people actually came about by mistake. When these mysterious dark-haired people began arriving in England in the Middle Ages, people assumed that they came from Egypt. Gypsy is a modification of the word Egyptian. The gypsy people are described using the word "Rom", which includes all descendants of the people who left India a thousand years ago. Today, it is believed that there are around 15 million Romanies in the world. Many do not reveal their gypsy roots to avoid the trouble it can bring them. They conceal their language too. In England in the 16th century, the punishment for speaking Romany was death.

4 Gypsies and non-gypsies often do not trust each other. In fact, gypsy customs are rarely revealed and outsiders are hardly ever accepted into the gypsy communities. Gypsies are nomadic people, who do not lead settled lives, and they claim to be a specific people, a nation among nations. Most people despise gypsies for their lifestyle. However, gypsies are proud of themselves and have maintained their lifestyle of traveling and working, along with their customs and religion through the centuries. They will undoubtedly continue to **do so** in the future.

A. What do the following refer to?

1. it (para. 1) : _____
2. there (para. 2) : _____
3. do so (para. 4) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. area (para. 1) (n.) : _____
2. adaptation; variation (para. 3) (n.) : _____
3. hide (para. 3) (v.) : _____
4. feel a strong dislike for someone; disrespect (para. 4) (v.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. Horse races, which are important events for the Gypsies in England, are organized in two fairs.

T F 2. Although Gypsies have northern Indian origin, their culture is a combination of different cultures.

T F 3. The word "Rom" is used to describe the people that lived in India a thousand years ago.

T F 4. People used to be sentenced to death for speaking Romany in England.

D. Fill in each gap with ONE word using the information in the LAST paragraph.

Gypsies neither (1)_____ their traditions nor welcome a(n) (2)_____ into their societies. They are nomadic people. In other words, they travel around and don't (3)_____ in a certain place permanently. Gypsies feel proud to have preserved their lifestyle as well as their (4a)_____ and (4b) _____ for centuries.

37 THE YANOMAMI OF THE AMAZON

1 The Yanomami people live in the Amazon forest between Venezuela and Brazil. They live in the tropical forest far away from other people. There are about 20,000 of them in 200 villages. Before scientists visited them, **they** didn't know anything about other people in South America, about the government, or about modern life. They even did not know whether they lived in Brazil or Venezuela. They lived in their own world.

2 All of the Yanomami's materials and food came from the forest. There was really no need for clothes so they only wore a few leaves for clothes. The Yanomami people of the Amazon have survived for thousands of years by hunting and fishing in the Amazon River. There wasn't enough area in the forest for farming so they didn't grow any crops at all. They ate bananas and palm fruit and the animals they hunted. As they ate healthy food, they never got ill. They used stone axes and bamboo knives to hunt and catch fish with.

3 In the late 1940s, scientists started to visit the Yanomami often. They wanted to study them for an unusual reason. The Yanomami are some of the most violent people on earth. They get angry quickly and stay angry for years. They frequently fight and kill each other so there is always a war between villages. Scientists want to know why the Yanomami make war when other groups of people live together and do not make war.

4 Today the life of the Yanomami is changing very fast. They wear clothes now. They have learnt to eat different kinds of food with salt and fat from visitors that come from the modern world. However, this food is bad for the Yanomami and makes them sick. Every time they get something new, they want more modern things. However, the modern things are killing the Yanomami. In the 1970s, gold was discovered in the area and many modern companies went there for gold. There were about 80,000 miners from big cities in the area by 1987. **They** worked under the ground to find gold. The miners brought many diseases like hepatitis and tuberculosis, which killed many of the Yanomami people. They also cut down trees in the forest for wood. In 1991, Brazil and Venezuela made the Yanomami land into a park, so that no one could mine for gold or cut trees on this land any more. The Brazilian and Venezuelan governments have also attempted to save the Yanomami in other ways.

A. What do the following refer to?

1. they (para. 1) : _____
2. they (para. 4) : _____

B. Mark the following statements True (T) or False (F).

T **F** 1. Scientists study the Yanomami to understand why they fight and kill each other.

T **F** 2. Modern life is beneficial for the Yanomami.

T **F** 3. Many Yanomami died because people from other tribes brought diseases.

C. Fill in the table according to the text. You can use one or more words.

	The Yanomami in the Past	The Yanomami in the Present
Clothes to wear	(1)_____	usual clothes
Food	(2a)_____, (2b)_____, fish and animals they hunted	different kinds of food with salt and fat, fruit & fish
Health	very healthy, never got ill	diseases e.g. (3a)_____ and (3b)_____

D. Answer the following questions.

1. Why couldn't the Yanomami grow their own food?

_____

_____.

2. What did the Brazilian and Venezuelan governments do to save the Yanomami?

_____

_____.

38 SURINAME

1 Suriname, home to a spectrum of native, Asian, African and European cultures struggling to build a common future, is South America's youngest nation. It was founded as a colony by the British in 1650 and then it became Dutch in 1667. Today, Suriname's population of 430,000 is made up of 37% Hindustani, 31% Creole (mixed African and European ancestors), 15% Javenese, 10% Maroon and the rest Indian and Chinese. 90% of the population lives along a narrow strip of fertile land that stretches along the Atlantic coast. Here, people of African and European origins live together with people who have Chinese, Indian and Indonesian origins and Paramaribo, the capital, reflects this diversity. People are tolerant of one another's religion and culture. Mosques and synagogues stand next to Hindu temples. Music is heard everywhere and it's as varied as the people: reggae, Hindi film songs, and Surinamese Afro-pop.

2 In the early years of their rule, the Dutch were often very harsh to the natives. In more recent years, though, they were so generous that the colony enjoyed the highest standard of living in South America. Indeed, when Suriname gained its independence from the Netherlands in 1975, 40,000 Surinamers, nearly half the workforce, chose the option of Dutch citizenship. Soon after that, they moved to the Netherlands. This brain-drain made the already bad economy worse, since many who had left were from the professional classes. After 1975, the country experienced a military dictatorship and a civil war, as a result of which the Dutch financial aid was stopped. Suriname was so badly in need of cash that it was considering selling off 40% of its forest to Asian logging companies. However, with the help of Conservation International (CI), the government was convinced that long-term commercial alternatives, like ecotourism, would be much more profitable than selling its forests. Therefore, Suriname and CI announced the creation of the Central Suriname Nature Reserve, a four-million-acre preserved area that covers 10% of the country.

3 Today, Suriname is known to be a country of rain forests. Because it lacks roads and rails, Suriname's interior, where the Suriname Nature Reserve is located, can only be crossed by airplane. Such areas protect wildlife and offer forest people the promise of income from ecotourism. Nearly 10,000 native Indians live in riverside villages, largely dependent on the forest. These forests are home to 700 bird species and 4,500 plant species. As the country is so rich in plants, the people's knowledge of the medicinal properties of the plants is incalculable.

4 In the north of Suriname, logging and mining are two important sources of income. Timber and gold attract foreigners with promises of fortune. Logging is tightly controlled, but as a result of illegal mining to smuggle gold to Brazil and French Guiana, much of the habitat has been destroyed.

5 Today, most Surinamers have realized that they must depend on one another if they want to move forward. In the end, it has become clear to them that the forest is the best alternative for a young nation anxiously in search of itself.

A. Fill in the chart using the information in the text.

Situation / Event	Effects / Results
In Suriname, ethnic groups are tolerant of one another's religion.	1.
2.	Suriname had a high standard of living.
Many professionals had moved to the Netherlands.	3.
4.	The Surinamese government was thinking of selling almost half of its forest.
Suriname's interior doesn't have roads or rails.	5.
6.	Surinamers are extremely knowledgeable about plants.
People dig up the earth to find gold.	7.

B. Answer the following questions.

1. What caused the Dutch to stop the financial aid to Suriname?

   _____

   _____.

2. Why did the Surinamese government decide not to sell its forest and create a Nature Reserve?

   _____

   _____.

39 Barasana Indians Of The Vaupes

1 The Vaupés region lies near the Equator on the border of Colombia and Brazil; the River Vaupés, rising from close to the Andes, flows east to join the Rio Negro, a tributary of the Amazon. In clearings on the banks of the river live some fifteen thousand Amazonian Indians who make their living by hunting, fishing and agriculture. They are divided into many small groups, **each** of which speaks its own language. Despite this, all the group languages belong to a common family called Tukanoan. Legends of the Vaupés Indians suggest they came from the East, but some carvings on the rocks indicate that they have been in the region for a long time.

2 The Barasana, who are the most well-known group of Amazonian Indians, have no villages; instead, small groups of people live in malocas (communal houses), each one separated from its neighbors by about an hour's journey. People in nearby malocas often visit each other to attend dances and wedding ceremonies. More distant people are rarely visited and often regarded with suspicion. Indians prefer to build malocas close to the bigger rivers where fishing is good and travel is easy. From the air, the large gardens, or chagras, around the malocas look like light green holes in the forest. Each maloca is surrounded by a cleared space or plaza. Behind the house are smaller gardens for special plants used for medicines and drugs, peppers for cooking and tobacco. Banana trees around the plaza provide fruit and their leaves are used for serving food.

3 The lives of Barasana men and women are sharply divided. Inside the maloca **they** use different doors and carry out their separate tasks in different areas. Outside, women work in the gardens, and men in the forest and on the rivers. The world of women revolves round the care of children, growing crops and manioc, a type of plant with large roots. The process required to turn manioc into food is lengthy and time-consuming, but the root does produce a good crop in poor soil, and many different foods can be made from it.

4 Though the groups have names like the Tukano, Cubeo, Desena, and Barasana, they are not really independent tribes; they share a common culture and a way of life because each group intermarries with its neighbors. Children are taught to speak their father's language but they know their mother's perfectly, too. Adults always speak in their own language but as they also know up to five **others**, they have no difficulty in understanding each other. On marriage a young man builds himself a compartment inside the maloca. When his wife has a child, he must stay with her in the compartment for ten days, fasting and avoiding work. When children reach the age of 5, they spend much of their time playing with other children of the maloca. Older children, especially older sisters, are expected to look after younger ones. Children do not go to school but learn by playing together, watching their parents and working with them. By the time they are six, young girls begin to help their mothers. Compared to girls, boys are freer. They swim in the rivers and practice hunting with miniature bows and arrows, or blowpipes. Later they begin to hunt and fish more seriously, bringing small birds and fish to their mothers to cook. Women often go with their husbands and children to visit their parents and brothers in neighboring malocas; their husbands usually take along gifts of food or baskets to give to their in-laws. At sunrise and dusk men sit out in the plaza talking with their wives and playing with their children, a family time that contrasts with their separation for the rest of the day.

5 The Indians' religion is based on myths or stories about the beginning of time which they believe to be true. They say that the sun made the world in the form of a big maloca. In the beginning there were no people. The first ancestors, the sun's children, came into the world through the front door in the east, and swam up river in the form of anacondas, giant water snakes. As they traveled, they stopped at the rapids on the way to dance and sing. Carved on the rocks in the rivers there are strange figures and patterns, said to have been left **there** by the first people. When they got to the Vaupés region, the anacondas turned into people. Each anaconda made people of a different language.

A. What do the following refer to?

1. each (para. 1) : each _____
2. they (para. 3) : _____
3. others (para. 4) : other _____
4. there (para. 5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. The Barasana prefer to be in touch with the ones who live close to them.

T F 2. Barasana men cannot marry women from other groups.

T F 3. Making food from manioc is not an easy task, but it is worth the effort.

T F 4. Amazonian Indians believe that the first people came to the Vaupés region in the form of anacondas.

C. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. a stream or river that flows into a larger stream or river (para. 1) (n.) : _____
2. the feeling of distrust (para. 2) (n.) : _____
3. the time before night when it is not yet dark (para. 4) (n.) : _____
4. unusually large (para. 5) (adj.) : _____

D. Fill in each gap using the information in the text.

* (1)_____ show that Vaupés Indians have been living in the region for a long time, contrary to what (2)_____ suggest.
* The Barasana, living in (3)_____ instead of (4)_____, prefer to be close to the bigger rivers for fishing and ease of traveling.
* After his child is born, a married young man has to live in his (5)_____ with his wife for some time, fasting or without doing (6)_____.
* When they are six years old, girls start helping their mothers. Older girls (7)_____ _____ their younger brothers and sisters, but boys, whose life (8)_____, spend most of their time swimming and hunting.

40 THE MOHANA

1 The Mohana fishermen of central Pakistan are one of the oldest societies in human history. They lead a life that has not altered for 5,000 years. They live in houseboats that are attached to each other by ropes to form floating villages on the banks of the River Indus in the region of Sind. Few other living creatures survive there. The climate is unpredictable and travelling down the river is too dangerous. The Mohana live as they have always lived: each person's role in the society is determined. There are three castes, which are determined by the traditional river trades: fishing, boat building and ferrying. The fishermen, or the *shikari*, are the most unusual. They fish in the shallow waters along the sides of the river for catfish and turtles. This is no easy task: the alluvial currents make it almost impossible to locate the fish. The solution is to use herons, a kind of large bird.

2 Herons have oils on the surface of their eyes that function as colour filters. These enable them to detect fish below the surface of the water, which they then dive for and catch. However, a trained heron will stand still above the fish instead of diving. The fisherman approaches the heron in a boat, jumps into the water and traps the fish in a net known as the *kulari*. The Mohana have never kept herons in captivity. There are **so many** in the region that it is not necessary. Instead, they train fully-grown specimens. The idea of training herons may seem impossible to Europeans, but for the Mohana, **this** is a part of everyday life.

3 Despite their skills, the *shikari*, who make up nearly two-thirds of the Mohana people, are the lowest in rank among the three castes. Above them are the *kurnangar*, or carpenters, who build both the rowing boats and the houseboats in which the Mohana live. The highest caste of all is the *mirbamar*, who ferry, or carry, cargoes by boat to the northern and southern parts of Sind. They are the smallest caste but own most of the community's wealth.

4 Despite their long history, all these castes face a similar fate now: extinction. In other words, they probably won't be able to survive the 21st century. On one side, they are threatened by problems as old as their own traditions. They have to pay about half of their incomes to their feudal lords, the *zamidar*, who own the banks of the river. The rest of their income is often taken by armed robbers from the jungles of northern Sind. On the other side, they face modern dangers. Seven dams that have recently been constructed between the Punjab and southern Sind have closed trading routes for the *mirbamar* and killed many of the fish on which the *shikari* depend. Moreover, the Mohana do not have enough contact with other Pakistanis to survive in the 21st century. **They** make no contribution to the country's economy as they are illiterate and nomadic. What's more, the rest of the population, most of whom are Muslim, do not approve of the Mohana's religious beliefs. It seems that although the Mohana civilisation has survived for 5,000 years, it will not last another twenty years.

A. What do the following refer to?

1. so many (para. 2) : so many _____
2. this (para. 2) : _____
3. They (para. 4) : _____

B. Fill in each gap using the information in the text.

* (1)_____ has been the same for 5,000 years. They live in (2)_____ formed by attaching (3)_____ to one another with ropes. Living on the banks of the River Indus is difficult because (4)_____ and (5)_____.

* Fishing is difficult in the shallow waters of the River Indus because of the alluvial currents. Therefore, the fishermen use herons (6)_____.

C. Answer the following questions.

1. What determines a person's caste among the Mohana?

_____

_____.

2. Which characteristic of herons lets them locate fish?

_____

_____.

3. How do the *mirbamar* earn their living?

_____

_____.

D. Mark the best choice.

1. Paragraph 4 is mainly about the _____ .

   a) problems which are caused by the Mohana traditions
   b) problems and the place of the Mohana in modern Muslim Pakistan
   c) causes of the Mohana's poor living conditions
   d) future of the Mohana traditions in Pakistan

2. The writer's purpose is to _____.

   a) criticise
   b) make a suggestion
   c) entertain
   d) give information

41 THE QUALITIES WE PRIZE IN OUR CHILDREN

1 A recent international study has shown some surprising and apparently **contradictory results** on the question of the priorities parents around the world have when raising their children. While the survey shows that some virtues are universally prized, interesting regional and national trends **emerge** when parents are asked to rate the importance of various qualities they wish to instill in their children.

2 Parents around the world seem to agree that good manners, a sense of responsibility, and respect for others are important qualities to teach their children. However, while West Europeans give all three qualities more or less equal importance, East Europeans and North Americans rate a sense of responsibility as by far the most important, and relegate respect for others to third place.

3 Interestingly, a sense of imagination ranks the lowest ***priority*** worldwide, although West Europeans give the quality of ***flexible*** thinking twice the importance any other group does. The Italians stress the virtue of cultivating their youngsters' imagination more than most others surveyed, with the exception of Switzerland. The supposedly staid Swiss prize imaginative youth.

4 Etiquette-minded Belgians, Spaniards, and Greeks place the highest premium on politeness, while the Danes and Swedes put good manners lowest on the list. The newly-capitalist Eastern Bloc countries also rate good manners as relatively unimportant, perhaps because they are being confronted, or faced with, commercial competition for the first time. Together with the Swiss and the Turks, on the other hand, **they** prize the ability to communicate with others.

5 The virtues of tolerance and respect for others are most highly ***regarded*** in Scandinavia, France, Britain, Switzerland, the Netherlands, and Spain. This is not the case in Greece and the ***former*** Eastern Bloc nations, which rate **these** as being of lesser importance.

6 Germans, Austrians, and Swedes esteem personal independence, but the industrious French hold the quality of conscientiousness at work, that is, doing their work carefully and properly, more dear than any other European nationals. The ***responses*** in the industrialized nations of Sweden and Britain show, perhaps bewilderingly, that those nations give little importance to conscientiousness at work.

7 As for the qualities concerning obedience and religious beliefs, the results are also interesting. To start with, polite Belgians answered that for them, obedience is among their paramount values; this sentiment is shared to a lesser degree by the British, Greeks, and Irish. The Italians, according to their questionnaires, rank this very low. Second, when rearing their children, the Greeks, Turks, and Irish are alone in their emphasis on instilling strong religious beliefs.

8 One of the ***primary*** difficulties the researchers faced was translating the questions as perfectly as possible in order not to distort, or misrepresent, the results. "Imagination," for example, can be translated into Dutch as "conceitedness"; perhaps this explains why the Dutch appeared to give imagination a low priority.

9 The researchers also discovered that some qualities are so **ingrained** in certain cultures that they are taken for granted — in other words, they are believed to be true without being questioned — while others are given great emphasis because they are felt to be lacking in a particular society.

A. What do the following refer to?

1. they (para. 4) : _____
2. these (para. 5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. West European parents think respect is much more important than good manners.

T F 2. Most of the parents in the world believe that imagination is a very desirable quality.

T F 3. Good manners appear to be the least important quality for Swedes.

T F 4. The Greeks and the Spanish value the quality of tolerance differently.

T F 5. No other European country gives importance to conscientiousness as much as the French.

C. Mark the best choice.

1. **contradictory results** (para. 1) probably means results which are _____.

   a) attached to each other
   b) opposing each other
   c) decided upon by all the nations
   d) recorded in the form of a list

2. **emerge** (para. 1) probably means _____ .

   a) modify
   b) react
   c) expand
   d) appear

3. **ingrained** (para. 9) probably means:

   a) unalterable and certain
   b) improved and ready
   c) mysterious and unknown
   d) guided and protected

4. For the North Americans, a sense of responsibility is _____.
   a) more important than it is for East Europeans
   b) as important as it is for West Europeans
   c) as important as respect is for others
   d) more important than respect is for others

5. Politeness is less important in the former Eastern Bloc because _____.

   a) they enjoy confrontations with other nations
   b) they are highly competitive people
   c) they do not have enough experience in commercial competition
   d) they are relatively uncommunicative with other nations

6. The research was difficult mainly because _____.

   a) it was conducted in many languages
   b) the researchers made a lot of mistakes
   c) the results were distorted
   d) there were different opinions about values

VOCABULARY PRACTICE:

A. Read the following sentences and choose the correct word to fill in the blanks.

1. The French ***regard*** the virtues of tolerance and respect for others as very important, In other words, they _____ (think/disagree) that people should be tolerant and respectful to each other.
2. A sense of imagination ranks the lowest ***priority*** means, people do not think it is very _____. (important/avoidable)
3. Translating questions was one of the ***primary*** difficulties the researchers faced. In other words, the _____ (first/main) problem the researchers had to deal with was translating questions.
4. ***Flexible*** thinking means considering _____ (different/similar) explanations for events.
5. The word ***'former'*** in (para. 5) can best be replaced with _____. (previous/later)
6. The word ***'responses'*** (para. 6) can best be replaced with _____. (answers/behavior)

B. Fill in each blank with the most suitable word from the box. Do NOT use the same word more than once.

responses	**former**	**flexible**
priority	**primary**	**regards**

Almost everywhere in Turkey, children are given the highest (1)_____ within a family. That is, generally a mother (2)_____ them as more important than her marriage or even her own life. Similarly, a father's (3)_____ concern is to assure his children's health, safety and welfare. Despite making their parents happy, children might also be a reason for arguments between a husband and a wife. (4)_____ of parents in a recent survey conducted in Ankara have revealed that more than 50 % of the arguments between couples are about child-raising issues. The men usually blame the women for being too (5)_____ in disciplining children. Some people have even said that they are considering a divorce as a result of arguments over children. This, however, is not a good way to stop arguments. When a couple files for a divorce, child custody turns into a battle over children and unfortunately, even after the couple gets divorced, children are usually used in an attempt to punish (6)_____ spouses.

SPACE & ASTRONOMY

42 COMETS

1 Comets are just as much members of the Sun's family as are the major and minor planets. There can be very few people who have not heard of Halley's Comet, but there are still a great many who have no ***real*** idea of what a comet is. The most popular mistake is to ***assume*** that a comet moves quickly across the sky, disappearing in a few seconds. In fact, all comets are very distant and they do not move perceptibly against a starry background. If you see an object moving visibly, it most probably is not a comet because most comets are extremely faint objects, far beyond the limits of the naked eye.

2 Although comets are members of the solar system, they are quite unlike planets. They are not solid or rocky. A large comet consists of an icy central part called the nucleus, a head, and a tail, or tails made of tiny particles of 'dust'. Though comets may be ***immense*** — the head of the Great Comet of 1843 was larger than the Sun — they are very flimsy. Even a direct ***collision*** between the Earth and a comet would cause no more than a local damage.

3 Comets move around the Sun, and with one exception — Halley's — all the really bright comets take hundreds, thousands or even millions of years to complete one orbit. This means that we cannot ***predict*** them, and they are always liable to take us by surprise. Comets usually arouse public interest when they are large and bright enough to attract attention and receive mention in the newspapers, but objects of this type do not appear frequently and have been particularly rare during the present century.

4 There are many short-period comets which reappear only after a few years but these are faint, and usually remain well beyond naked-eye visibility. Moreover, they usually lack tails and appear as nothing more than tiny patches of light. Haley's Comet is in a class of its own. It has a period of 76 years, and it has been seen regularly since well before the time of Christ.

A. Mark the following statements True (T) or False (F).

T F 1. The number of comets invisible to the naked eye is much higher than that of the visible ones.

T F 2. A comet may lead to worldwide destruction if it crashes into the Earth.

T F 3. Large and bright comets have been noted more often during the present century.

T F 4. All comets, including the short-period ones, have a nucleus, a head and a tail.

B. Answer the following questions.

1. What is the most common misconception about comets?

_____

_____.

2. In what way is a comet different from a planet?

_____

_____.

VOCABULARY PRACTICE:

A. Use your dictionary to find the meaning and the other forms of the following words, which are bolded and italicized in the text.

Word	Meaning	Other form(s)
real (adj.)		
assume (v.)		
immense (adj.)		
collision (n.)		
predict (v.)		

B. Now use these words or their forms to complete the following text.

1. Many peple _____ that learning involves a relatively straightforward transfer of knowledge from one person to another. However, it mainly involves generalization and reference to prior knowledge.

2. People who are faced with serious difficulties cannot deal with _____ all the time and have to consult a psychologist regularly.

3. When cars _____, its an accident. When galaxies _____, it is nature at work

4. It is not _____ to believe that a language can be mastered in 6 months.

5. There has never been any concrete evidence to support the _____ that there is life on any other planets.

6. _____, the minister denied having misused his power to gain personal advantage.

7. The increase in the number of suicides within the police force is due to the fact that they work under _____ pressure.

8. It is mostly believed that officials in the Space Shuttle Challenger Program had failed to act promptly to reduce risks and to prevent a _____ accident.

9. Two drivers were killed in a head-on _____ between a car and a taxi last night.

10. A child may not always differentiate between his imagination and the _____ world.

11. MSN has become a(n) _____ popular way of communication among teenagers.

12. Despite the advances in technology, it's still not possible to accurately _____ the occurrence of earthquakes.

13. Weather _____ has never been a perfect science.

14. It is _____ not proper to talk about politics or religion to someone you are not very familiar with.

43 THE MILKY WAY

1 On dark, clear nights we can sometimes see a creamy strip running across the sky. This is the *Milky Way*, the galaxy in which we live. A myth of the ancient Greeks said this long white mark was a "river of milk". The ancient Romans called it the *Via Galactica*, or "road made of milk". **This** is how our galaxy became known as the Milky Way. Until the invention of the telescope, nobody really knew what the "*Milky Way*" was. About 300 years ago, telescopes showed a very surprising fact: the Milky Way was made of stars. Only 70 years ago, more powerful telescopes brought the further **revelation** that the Milky Way is only one galaxy among many. In the 1920s, an American astronomer, Harlow Shapley, was the first to realize that our solar system is not at the centre of the Milky Way.

2 The Milky Way contains about two hundred billion stars and countless other objects. The size of our galaxy is huge; light would take about 100,000 years to cross it. Like other spiral galaxies, the Milky Way has three main components: a *bulge*, a *halo* and a *disk*. Although all are parts of the same galaxy, each contains different objects. The halo and central bulge contain old stars and the disk is filled with gas, dust, and young stars. Our Sun is one of these fairly young stars.

3 Our Sun is about 5 billion years old; however, the Milky Way is at least 5 billion years older than that. Our Sun is located roughly 24,000 light years from the center of the Milky Way. The Sun is revolving around the center of the Galaxy at a speed of half a million miles per hour. Therefore, our solar system must have made only 20 or so orbits around the Milky Way since the Sun began to shine.

Mark the best choice.

1. "**This**" (para. 1) refers to the fact that _____.
   a) the Romans called it the Via Galactica
   b) the Greeks called it the "river of milk"
   c) we can sometimes see a creamy strip across the sky
   d) both a and b
2. Which of the following is the closest meaning of "**revelation**" (para. 1)?
   a) thought
   b) interest
   c) discovery
   d) invention
3. Our Sun is in the _____ of the Milky Way.
   a) disk
   b) dust
   c) halo
   d) bulge
4. Which of the following is **FALSE** according to paragraph 3?
   a) The Milky Way is at least 10 billion years old.
   b) The Sun is nearly as old as the Milky Way.
   c) The Sun is half the age of the Milky Way.
   d) The Milky Way is much older than our Sun.
5. From the text we understand that _____.
   a) the contents of the Milky Way have been known since the ancient Romans
   b) the Milky Way is composed of two billion stars and objects
   c) it takes the sun 24,000 light years to orbit the Milky way
   d) all spiral galaxies consist of a bulge, a halo and a disk

44 THE ORIGINS OF THE MOON

1 For thousands of years, people have looked up at the night sky and watched the moon. They **wondered** what the moon was made of. They also wanted to know how big it was and how far away it was. One of the most interesting questions was "Where did the moon come from?" No one knew for sure. Scientists developed many different theories, but they could not prove any of these.

2 Then, between 1969 and 1972, the United States sent astronauts to the moon. They studied the moon and returned to the Earth with rock samples. Scientists have studied these pieces of rock, the moon's movements, and information about the moon and the Earth. They can finally answer some questions about the origin of the moon, which was impossible before the trips to the moon.

3 Today most scientists believe that the moon was formed from the Earth. They think that a large object, perhaps as big as Mars, hit the Earth early in its history. When the object hit the Earth, huge pieces of the Earth broke off because of this great **impact**. These pieces went into orbit around the Earth. After a short time, the pieces came together and formed the moon.

4 This 'impact theory' explains many facts about the Earth and the moon. For example, the moon is very dry because the impact created so much heat that it dried up all the water. The Earth has iron in its center. However, the moon has very little iron in its center. This is because the moon formed from lighter materials that make up the outer part of the Earth.

5 No one can prove something that happened billions of years ago. In the future, new information will either support this theory or show that it is wrong. For now, scientists accept the impact theory because it explains what we know today about the Earth and the moon.

A. Mark the best choice.

1. wondered (para. 1) means _____ .

   a) found an answer to a problem
   b) showed that something is correct
   c) wanted to learn about something
   d) made calculations

2. impact (para. 3) is the action of one object _____ .

   a) hitting another object with force
   b) breaking off from a bigger object
   c) coming together with other objects
   d) orbiting around another object

B. Mark the following statements True (T) or False (F).

T F 1. Before 1969, scientists had some ideas about the origin of the moon, but they couldn't support them.

T F 2. Scientists believe that in the past the moon was part of the Earth.

T F 3. According to some scientists, the moon is made up of many big pieces.

T F 4. Today, the information scientists have about the Earth and the moon shows that the impact theory is wrong.

C. Answer the following questions.

1. In what way is the moon different from the Earth?

   _____

   _____.

2. What made it possible for scientists to find some answers about the origin of the moon?

   _____

   _____.

45 THE MOON

1 The Moon is the only natural satellite of the Earth. It was first visited by the Soviet spacecraft Luna 2 in 1959. It is the only extraterrestrial body which humans have visited. The first manned landing on the Moon was on July 20, 1969; the last was in December, 1972. The Moon is also the only body from which astronauts have brought back samples to Earth. In the summer of 1994, the Moon was mapped in detail by the little spacecraft Clementine, and again in 1999 by Lunar Prospector.

2 The gravitational forces between the Earth and the Moon have some interesting effects. The most ***obvious*** is the tides. The Moon's gravitational attraction is stronger on the side of the Earth nearest to it and weaker on the opposite side. Since the Earth is not perfectly rigid, i.e. fixed and inflexible, it is stretched out toward the Moon. This results in two small bulges on the Earth's surface, one in the direction of the Moon and **one** directly opposite. The ***effect*** is much stronger in the ocean water than in the solid crust, so the water bulges are higher. And because the Earth rotates much faster than the Moon moves in its orbit, the bulges move around the Earth about once a day creating two high tides in oceans and lakes.

3 The Moon appears to turn slightly (due to its slightly non-circular orbit) so we can see a few degrees of the far side from time to time. The ***majority*** of the far side was completely unknown until the Soviet spacecraft Luna 3 photographed it in 1959. Actually, there is no "dark side" of the Moon; other than a few areas with deep craters near the poles, all parts of the Moon get sunlight half the time.

4 There are basically two types of terrain, or land, on the Moon: the heavily cratered and very old highlands, and, opposite them, the relatively smooth and younger maria. Most of the surface of the cratered highlands is covered with regolith, a mixture of ***fine*** dust and small rocks produced by meteor crashes. For some unknown reason, the maria are concentrated on the near side. The maria (which cover about 16% of the Moon's surface) are huge craters that were later filled with lava.

5 A total of 382 kg of rock samples were returned to the Earth by the Apollo and Luna programs. These ***provide*** most of our knowledge of the Moon. They are particularly valuable because they can be dated. Even today, 30 years after the last Moon landing, scientists still study these precious samples. Most rocks on the surface of the Moon seem to be between 4.6 and 3 billion years old. Thus, the Moon provides certain evidence about the early history of the solar system which is not fully available on the Earth.

6 Before the study of the Apollo, Luna 2 and Luna 3 samples, there was no agreement among scientists about the origin of the Moon. There were three principal theories: *co-accretion,* which said that the Moon and the Earth formed at the same time from the Solar Nebula; *fission,* which ***claimed*** that the Moon was formerly a part of the Earth; and *capture,* which held that the Moon formed somewhere else and was later captured by the Earth's gravitational field. **None of these** is very reasonable. The new and detailed information from the Moon rocks led to the *impact* theory: that the Earth crashed into a very large object (as big as Mars or more) and that the Moon formed from the discharged material. There are still details that scientists are working on, but the impact theory is now widely accepted.

A. What do the following refer to?

1. one (para. 2) : _____
2. None of these (para. 6) : None of the _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. outside or other than the Earth (para. 1) (adj.) : _____
2. comparatively (para. 4) (adv.) : _____

C. Mark the following statements (T) True or (F) False.

T F 1. The Soviets sent more than one spaceship to the Moon in 1959.

T F 2. Meteor crashes probably occurred on the heavily cratered highlands on the Moon.

T F 3. Scientists think the rock samples collected during the last moon landing are no longer reliable.

D. Answer the following questions.

1. Which parts of the Moon never get any sunlight?

_____

_____.

2. What helped scientists agree on a common theory about the formation of the Moon?

_____

_____.

E. Mark the best choice.

1. The last paragraph is mainly about _____.
   a) the basic theories about the Moon's origin
   b) why scientists didn't accept the three theories
   c) why scientists accept the *impact* theory
   d) what the Apollo, Luna 2 and Luna 3 samples show
2. Which of the following is **FALSE** according to the text?
   a) The speed of the Earth's rotation affects the tides in bodies of water.
   b) The gravitational pull of the Moon affects all sides of the Earth, but in different degrees.
   c) The last time astronauts landed on the Moon was in 1999.
   d) Scientists can determine how old the rock samples from the Moon are

VOCABULARY PRACTICE:

A. The following words are bolded and italicized in the text. Match them with the definitions. Put the letters on the lines provided. Then, in the following exercise, fill in the blanks with these words.

_____ 1. obvious (adj.) (para. 2)	a)	greater part
_____ 2. effect (n.) (para. 2)	b)	be a source of something
_____ 3. majority (n.) (para. 2)	c)	very thin
_____ 4. fine (adj) (para. 3)	d)	influence, impact
_____ 5. provide (v.) (para. 4)	e)	state that something is true
_____ 6. claim (v.) (para. 5)	f)	clear and easy to see

* Project Apollo produced the first vehicles for humans to visit another heavenly body with. In fact, it had the most inspiring (1)_____ on space studies. It is perceieved as one of the most outstanding accomplishments in human history and the samples from the six lunar-landing missions continue to (2)_____ evidence for a better understanding of our universe.

* Many people, however, believe that the Apollo missions and subsequent moon landings were faked. People who (3)_____ that the landings were faked focus on three points: First, they stress that the radiation exposure suffered by the astronauts was not survivable; second, that the photographic evidence "proves" that the landings were staged in a Disney movie studio somewhere. One example, they give is (4)_____ dust-like sand on the moon's surface. They wonder why, in a low-gravity environment, huge clouds of dust aren't kicked up with every step the astronauts take. They believe low gravity should have brought up clouds of this dust each time they hit the ground, but in the pictures there is no such thing. Third, they believe that the mechanical aspects of the mission -- the pure mechanics and physics of the journey -- are not as claimed and therefore must be faked. But, why would NASA try to fool billions of people? The most (5)_____ reason, people say, was to get public attention and guarantee the continued funding of the US Government. Apollo's success enabled NASA to achieve its aim.

* From many surveys, and the response to various robotic missions over the last 4 decades, it is clear that the (6)_____ of the public worldwide are interested in space matters. However, that interest is only on the surface level and it is not enough to raise the levels of public support to the heights of the 1960's and 1970's.

46 VENUS

1 Venus is one of the most unusual planets in our solar system. It is the second planet from the Sun, ***located*** in between Mercury and Earth. The ***orbit***, or path, Venus follows around the Sun is circular, and the planet's distance from the Sun is about 65 million miles. As Venus is closer to the Sun than Earth, a Venusian year is just 225 Earth-days. Venus rotates around itself much more slowly than Earth, so a day on Venus is 243 Earth-days. This means that a day on Venus is longer than its year! Even more strange is the fact that Venus rotates from East to West. This is just the opposite of Earth and most of the other planets.

2 Venus is the brightest object in the sky after the Sun and the moon. It is ***visible*** to the naked eye for several months. As Venus appears both in the morning sky and the evening sky, ancient astronomers thought it was two different objects and called it Eosphorus and Hesperus.

3 Venus is ***similar*** to Earth in some ways. Venus is almost the same size as Earth, with a diameter of a little over 7,200 miles. Both have craters on their surfaces. Their densities and chemical compositions are similar. Venus probably once had large amounts of water like Earth, but it all boiled away so Venus is quite dry now. Because of these similarities, scientists thought that below its dense clouds Venus might be like the Earth and there might even be life on it. However, more detailed study of Venus showed that in many ways it is different from the Earth.

4 The atmosphere of Venus is about 90 times heavier than the Earth's atmosphere. **It *consists*** mainly of carbon dioxide (96%). 3.5% of the atmosphere is nitrogen and less than 1% is made up of carbon monoxide, argon, sulfur dioxide and water vapor. There are also several ***layers*** of clouds that cover the planet. These clouds are many kilometers thick and they are made of sulfuric acid, which is an ***extremely*** dangerous substance. These clouds **obscure** our view of the surface of Venus. In other words, we can't see the surface of Venus from the Earth. There are strong winds at the cloud tops, averaging around 350 kilometers per hour, but the winds on the surface are very light, no more than a few kilometers per hour.

5 A lot of information about Venus comes from spacecraft that study the planet from a safe distance. They cannot get very close to the planet because of the high temperature. The density of the atmosphere of Venus leads to an increase in the surface temperature and makes the planet one of the hottest places in the solar system. The temperature on Venus reaches 450°C, which is very hot and can **melt** most metals; that is, the high temperature can turn most metals into liquid. For this reason, scientists are looking for a different way of collecting information about Venus from Earth. A few years ago, they made a map of the planet's surface using radar telescopes here on Earth. They found that Venus' surface has many mountains (some higher than Mount Everest) and volcanoes. There are also large flat lands called **plains** on its surface.

A. Guess the meaning of the following words using the clues in the text and complete the sentences.

1. If something **obscures** (para. 4) your view of another thing, that means you _____ it.
2. Metals _____ when they **melt** (para. 5).
3. **Plains** (para. 5) are _____.

B. What does the following refer to?

1. It (para. 4) : _____

C. Fill in each gap using the information in the text.

* Venus is closer to the Sun than the Earth. It travels in a(n) (1)_____ path around the Sun. It takes Venus (2)_____ Earth days to travel around the Sun and this makes one year on Venus.

* In the past, scientists believed that there could be life on Venus as it was similar to Earth. The (3)_____ and (4)_____ of Venus and Earth are similar. Their chemical compositions are also similar and there are (5)_____ on both Venus and Earth.

* Spacecraft cannot get close to Venus to study it, so they collect information from a(n) (6)_____ and send it to the scientists on Earth.

D. Answer the following questions.

1. According to paragraph 1, what are the two strange facts about Venus?
   a) _____.
   b) _____.
2. Why did ancient astronomers give Venus two names?
   _____
   _____.
3. How does its dense atmosphere affect Venus?
   _____
   _____.
4. How did scientists learn about the surface of Venus?
   _____
   _____.

VOCABULARY PRACTICE:

Read the information below about Jupiter and fill in the blanks with the words from the box below. These words are bolded and italicized in the text.

located	**orbit**	**similar**	**layers**
visible	**extremely**	**consists**	

* Jupiter is the fifth planet from the sun and by far the largest within our solar system. As it is so big, Jupiter generates a(n) (1)_____ strong and extensive magnetic field. This helps Jupiter to keep a lot of satellites in its (2)_____. Overall, the planet (3)_____ of about 90% hydrogen and 10% helium, With traces of ammonia, water ices and methane. Jupiter, the largest of the Gas Giants, is composed of different (4)_____ of clouds and these are divided into several bands. Jupiter's appearance is characterized by colourful horizontal bands of clouds. Jupiter has at least 63 known moons. Moons that are close to the planet have more rocky, dry conditions; and those that are (5)_____ farther away are more icy. Among all these moons are four prominent moons, the Galilean moons, which are Io, Europa, Callisto and Ganymede. They are even (6)_____ through a small amateur astronomer telescope. And Europa, which is slightly smaller than our moon in size, is closely associated with the possibility of finding life elsewhere in the solar system as its composition is (7)_____ to that of the terrestrial planets and has a rocky core.

47 NASA LISTENS FOR SPACE ALIENS

1 The idea that "We are not alone in the universe" and movies like E.T or Star Wars have always fascinated people, though in reality, most people don't believe life on other planets exists. However, NASA assumes there's a good chance that we're not alone in the universe. Last fall, NASA began a new project called the High Resolution Microwave Survey (HRMS), whose purpose is to find evidence of life in one of the billions of galaxies in the universe

2 The search for intelligent life on other planets isn't new. In fact, it began in the early 1900s. Scientists built a huge transmitter to **beam** radio waves into space **then**. They thought intelligent beings on other planets might pick up the signals. Recently, scientists have also sent a message about humans and our solar system to a nearby constellation. However, as the constellation is 25,000 light years away, a return message won't reach Earth for 50,000 years, so don't expect an answer for now!

3 So far, no ETs (extraterrestrial beings) that we know of have returned our "calls", but according to Dr. Jill Tarter, who is an HRMS scientist, we haven't exactly had our ears wide open. "Now, however," says Dr. Tarter, "we've built the technological tools we need to listen well." Last October, Dr. Tarter turned on the largest radio receiver in the world. It's a huge metal bowl stretching 1,000 feet across a canyon in the jungles of Puerto Rico.

4 Meanwhile, another NASA scientist flipped on a huge radio antenna in California's Mojave Desert, where NASA hopes to pick up radio signals from other worlds. Dr. Frank Drake has been searching for life in outer space for years. He explains the HRMS project this way: To listen to your radio, you move the tuner on the dial until the channels come in loud and clear. Now imagine radio receivers that scan our galaxy listening to 14 million channels every second. That's what NASA's radio telescopes in Puerto Rico and California are doing.

5 However, that's not all. Powerful computers in the telescopes carefully examine every signal. They try to match the signals to the **ones** that scientists already recognize, such as human-made signals. If they can't, Drake and Tarter check on them. "It could prove there is radio technology elsewhere in the universe," says Dr. Tarter. "And that would mean we're not alone." "Whenever I look up at the stars," Dr. Tarter adds, "it seems ridiculous to think we are alone." After all, she reasons, there are billions of galaxies like our own and **each** has hundreds of billions of stars like our sun. As each sun might also have planets, it's very likely that some of those planets support life as Earth does, and she believes that some of that life could be intelligent.

6 That leads right to the next big question: If there are intelligent ETs out there, are they trying to reach us? There's no way to know for sure, but according to Dr. Tarter, it might not matter. "If they have the technology, their signals may reach us, just as our TV signals may reach **them**." Dr. Drake is also confident. "I fully expect to find signals from an extraterrestrial before the year 2010. However, we have to be **cautious** when revealing our research findings as any misunderstanding may create a panicky situation. Therefore we have arrived at a decision: We are not going to immediately announce the results of the studies that might show the existence of space aliens to the public." he says. However, not all scientists are that certain of discovering life in other galaxies, but who knows? If Dr. Drake is correct, the year 2010 just might bring us a group of new space neighbors!

A. What do the following refer to?

1. then (para. 2) : _____
2. ones (para. 5) : _____
3. each (para. 5) : each _____
4. them (para. 6) : _____

B. Mark the best choice.

1. If you 'beam' (para. 2) radio waves into space, you _____ them.

   a) receive c) reach
   b) send d) pick up

2. If you are 'cautious' (para. 6) when doing something, you are _____ with it.

   a) careful c) certain
   b) confident d) correct

C. Mark the following statements True (T) or False (F).

T F 1. Dr. Tarter believes that recent technological developments will probably help them to receive messages from ETs.

T F 2. HRMS sends 14 million radio signals to outer space every second.

T F 3. Dr. Drake thinks that instead of trying to reach ETs, we should wait for them to reach us because she believes they have higher technology.

D. Answer the following questions.

1. Why did NASA start the High Resolution Microwave Survey?

   _____

   _____.

2. Why did NASA decide not to share the information that may show ETs exist with the public immediately?

   _____

   _____.

48 MISSION TO MARS

1 Astronomers all over the world were waiting in excitement as August 1993 ***approached***. Mars Observer, the American spacecraft, was **scheduled** to move into orbit around Mars and begin sending new information back to Earth. In addition to mapping the planet, Mars Observer was going to study the Martian atmosphere and surface. Unfortunately, no information reached the Earth as scientists lost ***contact*** with Mars Observer on August 24. The Mars Observer mission, which cost $845 million, failed.

2 Unlike Mars Observer, the United States' ***previous*** mission to Mars was successful. In 1976, two American spacecraft, the Viking landers, landed on Mars to search for life. They **performed** four experiments. Three experiments tested for biological activity in the soil. The fourth experiment looked for ***evidence*** of life, dead or alive. The results of the Viking landers' tests were negative. However, scientists were ***dissatisfied*** with the Viking mission and still had questions about our close neighbor in space. The two sites where the spacecraft had landed provided safe landing places, but they were not particularly interesting locations. Scientists believe there are other areas on Mars that are similar to specific places on Earth that support life. For example, an area in Antarctica, southern Victoria Land, which is not covered by ice, ***resembles*** an area on Mars. In the dry valleys of southern Victoria Land, although the temperature averages below zero, biologists have found simple life forms (microorganisms) in rocks and frozen lakes. Perhaps this is also true of some places on Mars.

3 Scientists' interest in Mars is based on a theory. They believe that 4.5 billion years ago, Mars and Earth began their ***existence*** under similar conditions. During the first billion years, liquid water was abundant (plentiful) on the surface of Mars. This shows that Mars was much warmer at that time. Mars also had a thicker atmosphere of carbon dioxide (CO2). Many scientists think it is possible that life began on Mars under these **favorable** conditions. After all, Earth had the same positive conditions during its first billion years, when life began. At some point in time, Earth developed an atmosphere that is rich in oxygen, and an ozone layer. **It** also survived and became more complex. Mars, however, lost its thick atmosphere of carbon dioxide and ultraviolet radiation increased. The planet ***eventually*** grew colder, and its water froze.

4 A biologist at NASA, Chris McKay, has suggested three theories about life on Mars. One theory is that life never developed there. A second theory is that life started on Mars just as it did on Earth and survived for at least a billion years. The third is that life began on Mars and simple organisms developed. When ***environmental*** conditions on Mars changed, life ended.

5 Scientists want to map the surface of the planet and land a spacecraft in a better location. They want to **investigate** further the possibility of life on Mars. They want to search for fossils, the ancient ***remains*** of life. If life ever existed on Mars, scientists believe that future missions might find **records** of it under sand, or in the ice.

A. Match the words in the left column with the ones similar in meaning in the right column. There are more meanings than you need.

	A	B
____	1. scheduled	a) interesting
____	2. performed	b) examine
____	3. favorable	c) considered
____	4. investigate	d) programmed
____	5. records	e) did
		f) suitable
		g) reports
		h) evidence
		i) prove

B. Fill in each gap using the information in the text.

* In 1993, the astronomers were all excited because Mars Observer was going to orbit Mars to (1)_____ the planet and send information about its (2a)_____ and (2b)_____.
* The purpose of the experiments in 1976 was to look for (3a)_____ _____ and (3b)_____.
* According to a theory suggested by Chris McKay, life on Mars ended with the change in (4)_____.

C. Mark the best choice.

1. Which of the following statements is **FALSE** according to the text?
   a) The American spacecraft, Mars Observer disappointed astronomers all over the world.
   b) Scientists didn't receive any information from Mars Observer.
   c) The Viking landers were sent to Mars after Mars Observer.
   d) The Viking landers were successful because they landed on Mars.
2. 'Perhaps this is also true of some places on Mars' (para. 2) means that in some places on Mars there might be _____.
   a) dry areas with a temperature below zero
   b) rocks and frozen lakes
   c) simple life forms
   d) places which are not covered by ice
3. Which of the following is **TRUE** of Mars according to the text?
   a) Mars has a thick atmosphere of carbon dioxide.
   b) There was life on Mars after the first billion years.
   c) There is liquid water on Mars now.
   d) Mars is the same age as Earth.
4. **It** (para. 3) refers to _____.
   a) Earth
   b) The atmosphere
   c) Oxygen
   d) The ozone layer

VOCABULARY PRACTICE:

A. The following words are bolded and italicized in the text. Match them with their synonyms.

Put the letters on the lines provided.

_____	1. approach (v.) (para. 1)	a) signs
_____	2. contact (n.) (para. 2)	b) not pleased
_____	3. previous (adj.) (para. 2)	c) physical
_____	4. evidence (n.) (para. 2)	d) look like
_____	5. dissatisfied (adj.) (para. 2)	e) at last
_____	6. resemble (v.) (para. 3)	f) earlier
_____	7. existence (n.) (para. 3)	g) come near in time
_____	8. eventually (adv.) (para. 4)	h) communication
_____	9. environmental (adj.) (para. 4)	i) occurrence / presence

B. Fill in the blanks with the words in part A.

* On July 8, 1947, the US Army Air Forces at Roswell Army Air Field announced the recovery of a "flying disk" near Roswell, New Mexico.Within hours, however, the officials contradicted their (1)_____ statement, and declared that what they discovered was the ruins of a weather balloon. William "Mack" Brazel, who discovered a large amount of unusual debris scattered widely over his ranch and who was regarded as the most important witness to this incident, said that he had previously found two weather balloons on the ranch, but that what he found this time did not in any way (2)_____ either of these. Moreover, various authors, who were also (3)_____ with the official explanation, wrote a number of books claiming that alien bodies were also recovered. All these claims led to many investigations into the (4)_____ of UFOs and extraterrestrial life. However, so far no concrete (5)_____ has been gathered.

* People who believe in UFOs and aliens believe that intelligent life from distant galaxies has been attempting to make open (6)_____ with the human race for a long time. They also believe that aliens will (7)_____ make their presence known for sure. Actually, they look forward to this because they say that technologies related to extraterrestrial phenomena are capable of providing solutions to the global energy crisis, and other (8)_____ issues.

* People who are skeptical about UFOs wonder why these UFOs only land at remote places and never (9)_____ main government buildings or crowded malls.

49 LIFE ON MARS?

1 Many years ago, there was a newspaperman who was writing a story about the planet Mars. He needed scientific information, so he sent the following telegram to a well-known astronomer: "TELEGRAPH IMMEDIATELY FIVE HUNDRED WORDS ON WHETHER THERE IS LIFE ON MARS." The astronomer quickly replied: "NOBODY KNOWS, NOBODY KNOWS, NOBODY KNOWS..." 250 times.

2 Our ability to get information about Mars and the other planets in our solar system is much better today. We have sent people and machines into space. We have analyzed the "earth" and "air" of all the planets in our solar system through one means or another. Many of the scientists who have studied the information we have got about Mars continue to think that there may be life on the red planet.

3 There are nine planets in our solar system: the four smaller inner planets with solid surfaces: Mercury, Venus, Earth and Mars; the four gas giants further from the Sun: Jupiter, Saturn, Uranus, and Neptune, and the icy planet of Pluto, which is the smallest of the nine and is also the farthest from the Sun. Of these nine planets that orbit the Sun, we know for sure of only one planet with life on it: that planet, of course, is the Earth. Why, with seven other planets to choose from, does Mars receive so much attention? There are two basic reasons: one is its form; **the other** is its chemistry.

4 In many ways, Mars looks like the Earth. It is solid and about the same size. On Mars, there are large rocks and boulders; and there are huge volcanoes, much larger than the largest volcano in Hawaii. There are polar ice caps on Mars that look a lot like our North and South Poles, and there are also **drifting** white clouds in its sky like the ones moving slowly in the sky of the Earth. A Martian day is the same length of time as an Earth day. Mars makes a complete revolution in 24 hours. Some of the other planets turn more slowly than the Earth. Venus, for example, turns so slowly that one day there takes about 118 Earth days. Jupiter, on the other hand, turns more quickly than the Earth. It only takes 10 hours for it to complete its day.

5 If the form of a planet is a lot different from ours but the chemistry is similar, there may still be life on that planet. Jupiter is such a planet. It is the largest of all nine planets and it could contain more than a thousand Earths within it. It does not have a solid surface with mountains and valleys the way the Earth and Mars do; it has instead a **vast,** i.e., very big, ocean of boiling liquids and gases. Jupiter doesn't look a lot like the Earth but the bright colors of the planet, and thousands of scientific studies about it tell us that there are very active chemicals on Jupiter. These chemicals are the same as the **ones** that formed life on Earth long ago. If some form of life could find a way to live at a distance from its hot surface— maybe floating in its sky — there could be life on Jupiter.

6 Although our imaginations and our scientific minds take us here and there throughout the solar system, we turn again to Mars. Mars looks like the Earth. Its chemistry is also similar to that of the Earth. Its air contains a lot of carbon dioxide, a little water in a form between liquid and gas, and oxygen. There is also a small amount of ozone (a kind of gas that protects human beings from the Sun's harsh rays). However, there is not enough water, oxygen or ozone for human beings to live on Mars. The question is: could any organisms **survive**, or live, in such conditions?

7 To test this question, scientists prepared a place that was chemically like Mars, and then they put **tiny** Earth organisms in it. Some of these very small organisms were able to survive. In another experiment, **they** added a tiny amount of water, and some of the organisms actually grew. If Earth organisms can live in Martian conditions, maybe there are Martian organisms living somewhere on the red planet. Scientists believe that if there are such organisms, they should be found near water, so they are looking near the ice caps for signs of life.

8 We have sent people and machines into space; we have studied and experimented but we still ask, " Is there life on Mars (or anywhere else in the solar system)?" The answer remains the same: "NOBODY KNOWS, NOBODY KNOWS, NOBODY KNOWS..."

A. What do the following refer to?

1. the other (para. 3) : the other _____
2. ones (para. 5) : _____
3. they (para. 7) : _____

B. Guess the meanings of the following words using the clues in the text.

1. drifting (para. 4) : _____
2. vast (para. 5) : _____
3. survive (para. 6) : _____
4. tiny (para. 7) : _____

C. Mark the following statements True (T) or False (F).

T F 1. Technology has developed a lot in recent years, but it is still not possible to analyze the "earth" and "air" of all the planets in our solar system..

T F 2. After studying the information they have about Mars, scientists lost their hope of finding any form of life on it.

T F 3. The common characteristic of the four inner planets is that they have solid surfaces.

T F 4. The studies about the size of Mars show that it is much bigger than our planet.

T F 5. The surface of Mars is different from that of the Earth in that it's not rocky or mountainous.

T F 6. There is no planet in the solar system that completes its revolution in less than 24 hours.

T F 7. There is no possibility for life to exist on a planet if its form is not similar to that of the Earth.

T F 8. The heat on Jupiter is so great that it makes it impossible for any form of life to exist on its surface.

T F 9. Experiments have proved that certain Earth organisms can live or grow in Martian conditions.

D. Answer the following questions.

1. How do we know that there are very active chemicals on Jupiter? (Give two reasons)

_____

_____.

2. When we think of its chemistry, why can't human beings live on Mars?

_____

_____.

50 SPACE WARDROBE

1 There is no atmosphere to supply the pressure and oxygen necessary to support life in space. This forces humans to take their environment with them to be able to explore and work **there.** Without enough atmospheric pressure, body fluids will start to heat up and boil, and without oxygen, we will be unable to breathe.

2 Spacesuits serve many functions. Today's spacesuits are pressurized, have an oxygen supply, protect the astronaut from micrometeoroid bombardment while spacewalking, and insulate the astronaut from the severe temperature changes experienced in space. The Space Shuttle astronauts have more than one "outfit" for space travel. What they wear while on a mission is determined by the job they are doing. During the launch and re-entry, the astronauts wear a partially-pressurized suit and a parachute pack. The suit has a helmet, gloves, and boots which all serve as protection for the astronaut. Within the suit, there are bags that automatically fill with air at reduced cabin pressures. At low pressure, the blood will accumulate in the lower body causing the astronaut to lose consciousness. The bags maintain the pressure on the lower body to prevent this from happening. While working in the Shuttle during orbit, astronauts work in comfortable clothes such as knit shirts, pants, or flight suits. In addition, before each duty, the flight crew is provided with lined jackets, sleep shorts, slippers, and underwear.

3 While working outside the Shuttle during a mission, astronauts wear an extravehicular mobility unit (EMU). This suit has interchangeable parts so it can be assembled to fit different astronauts. This makes the suit more cost-effective since it can be reused. The EMU has a liquid cooling garment, which is a one-piece suit made of spandex, and keeps the astronaut cool while in the suit. The unit also contains headphones and microphones, a drink bag which carries water, a life support system containing oxygen, and a urine collection device. Gloves are included with the unit along with a helmet and a visor. All of these are necessary to protect the astronaut from micrometeoroids, solar radiation, infrared radiation, temperature changes, pressure changes, and oxygen deprivation.

4 To help the astronaut get around freely while performing a spacewalk, a manned-maneuvering unit (MMU) can be joined to the EMU. The MMU is a nitrogen propelled backpack that allows the astronaut to fly with precision. The MMU has a 35mm camera attached to it so that the astronaut can take pictures while in flight.

A. What does the following refer to?

1. there (para. 1) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. protect (para. 2) (v) : _____
2. all the people who work on a spaceship (para. 2) (n) : _____

C. Mark the following statements True (T) or False (F).

T F 1. A decrease in atmospheric pressure leads to an increase in the temperature of blood.

T F 2. Astronauts wear a partially-pressurized suit outside the space shuttle.

T F 3. Flight suits can be worn in the shuttle during orbit.

T F 4. A manned maneuvering unit lets the astronaut move freely in the Shuttle.

T F 5. While spacewalking, an astronaut can take pictures with the camera in his hand.

D. Answer the following questions.

1. What would happen if there were no air bags within the partially-pressurized suit?

_____

_____.

2. Why is it possible for different astronauts to use the same EMU?

_____

_____.

3. Write <u>two</u> of the problems astronauts have to deal with.

_____

_____.

51 HISTORY OF ASTRONOMY

1 People have been struggling to understand the universe since ancient times. Thales, who is the father of Greek science and mathematics, asked questions about the Universe that were not based on the actions of gods or demons. He provided the bridge between the world of myth and the world of reason. He used the astronomical records of the Babylonians and Egyptians to correctly predict a solar eclipse in the sixth century BC. Thales believed the Earth was flat and floated on water like a **log**, i.e., a piece of wood.

2 Aristotle, who lived from 384 to 322 BC, believed the Earth was round. He thought the Earth was the center of the Universe and that the Sun, Moon, other planets, and all the fixed stars revolved around **it.** Aristotle's ideas were widely accepted by the Greeks of his time. The exception, a century later, was Aristarchus, one of the earliest believers in a **heliocentric** system. In other words, he believed that the Universe was sun-centered.

3 The first astronomer to make truly scientific maps of the heavens, Claudius Ptolemaeus, came along 300 years later. Like most astronomers before him, he believed the Sun, Moon, and other planets circled the Earth. He thought that each body in the space moved in an epicycle. In other words, each body in the space moved in a small circle which moved around a larger circle. **This** explained why planets sometimes appeared to travel backward in the sky. The Earth-centered view of the Universe was widely accepted for about 1500 years. It was not seriously ***challenged*** until 1543, when the Polish monk Nicolaus Copernicus suggested that the Sun was at the center of the Universe. However, **this idea** was not accepted by the Church. The two events most responsible for the eventual acceptance of Copernicus's views were Tycho Brahe's ***precise*** observations of the sky and Galileo's use of the telescope

4 One night in 1572, Danish astronomer Tycho Brahe saw what he thought was a brilliant new star in the constellation Cassiopeia, a supernova. In 1604, a second **one** was ***observed.*** These discoveries caused scientists to seriously question Ptolemy's theory that the outer sphere of the Universe contained all the stars.

5 In 1609, Italian scientist Galileo Galilei heard about the ***invention*** of a *"spyglass."* He made one for himself and turned it on the heavens. One of his first discoveries was four moons circling the planet Jupiter. Galileo's telescope **revealed**, or showed, a miniature version of Copernicus's solar system, with the moons moving around the planet in simple, circular orbits. Galileo's discoveries forever changed the face of astronomy.

6 The beginnings of modern astronomy can be ***attributed*** to Galileo and the British genius Isaac Newton. Newton was born in the same year that Galileo died. Isaac Newton took the known facts and used mathematics to explain **them**. He developed mathematical laws that explained how objects move on Earth as well as in space. He reasoned that everything in space is ***constantly*** moving, with no limits on space or time.

7 In 1917, Albert Einstein proposed a description of the Universe based on his Theory of General Relativity. Einstein's theory ***inspired*** many other scientists such as Friedmann, who built on the General Relativity equations to develop models that helped explain the ***evolution*** of the Universe.

A. What do the following refer to?

1. it (para. 2) : _____
2. this (para. 3) : that _____
3. this idea (para. 3) : the idea that _____
4. one (para .4) : _____
5. them (para. 6) : _____

B. Guess the meanings of the following words using the clues in the text.

1. log (para. 1) : _____
2. heliocentric (para. 2) : _____
3. revealed (para. 5) : _____

C. Mark the following statements True (T) or False (F).

T F 1. The Babylonians and Egyptians predicted a solar eclipse correctly in the sixth century B.C.

T F 2. Aristarchus accepted Aristotle's ideas.

T F 3. Before the mid-1500s, most astronomers believed that the Earth was the center of the Universe.

T F 4. Galileo and Newton worked together and contributed a lot to astronomy.

T F 5. Some scientists based the explanation of the evolution of the Universe on Einstein's Theory of General Relativity.

D. Answer the following questions.

1. What reinforced Copernicus's ideas about the universe?

   _____

   _____.

2. How did Newton's mathematical laws contribute to astronomy?

   _____

   _____.

VOCABULARY PRACTICE

A. The following words are bolded and italicized in the text. Mark the meaning that is used in the text.

1. **challenge (v.) (para. 3)**
   a) question the truth or value of something
   b) present something difficult to do
2. **precise (adj.) (para. 3)**
   a) particular
   b) very careful and accurate
3. **observe (v.) (para. 4)**
   a) watch carefully in order to learn
   b) notice or see
4. **invention (n.) (para. 5)**
   a) the act of creating something new
   b) a thing that somebody has created
5. **attribute (v.) (para. 6)**
   a) think that someone or something has a particular quality or feature
   b) think that something is the result or work of something or someone else
6. **constantly (adv.) (para.6)**
   a) without variation
   b) without interruption
7. **inspire (v.) (para. 7)**
   a) encourage or guide
   b) make someone have a particular strong feeling or reaction
8. **evolution (n.) (para. 7)**
   a) change in genetic composition
   b) a gradual process of change and development

B. Use your dictionary and find other forms of these words.

Word	Other form(s)
challenge	
precise	
observe	
invention	
attribute	
constantly	
inspire	
evolution	

C. Fill in the blanks using the correct form of the words in the chart above.

* Mars is the planet that most closely resembles the Earth. In addition, it is the only planet whose surface can be (1)_____ directly. However, taking good clear pictures of Mars was a major (2)_____ to both professional and amateur astronomers. In recent years, this has changed thanks to technological (3)_____. Now, the astronomers can map the surface more (4)_____.

* Dr. Robert Zubrin, President of The Mars Society, claims that NASA should support Mars exploration more. To justify his claim, he refers to the benefits the Apollo Program to American Nation in the past. He said that Apollo (5)_____ children around the country to pursue science and math careers. A manned mission to Mars will certainly have the same impact. "By investing in space, we benefit Earth," Zubrin says. Thus, he urges that NASA allocate at least $140 million per year to develop the technologies necessary for human Mars exploration missions.

* Should we send humans to Mars? Below are some comments taken from the BBC's Talking Point Program. "It would be a better allocation of current NASA resources to explore Mars than to (6)_____ orbit the earth in search of another boring mission.

Aaron Schmidt, Canada

"I think that we should go to Mars; however, I believe that the person selected to make the next big step for humanity should be dubbed a human or a "citizen of Earth", rather than as a European, an American or whatever. It doesn't matter which nation sends the first person there, but the technology to do it would be the end result of thousands of years of human (7)_____ and science. Therefore, our knowledge of Mars cannot be (8)_____ to one individual or nation, but rather to a host of individuals and nations.

Paola Sammut, UK

"Going to Mars is part of the human race's mission. Let us hope that we have now (9)_____ to the point where we will not be going merely to colonise and exploit, but to understand and respect our place within a greater context.

Adam Tanner, United Kingdom

52 HISTORY OF SPACE TRAVEL

1 The Earth has been the home of mankind for centuries. However, one cannot remain at home forever. After living on Earth for centuries, some people decided that it was time for them to explore life outside the Earth. To **do this,** they had to design a spacecraft. The theory of space flight was studied by many brilliant men over a period of nearly three centuries – from 1600 to 1900.

2 Johannes Kepler was the German mathematician who, in 1609, worked out the equations for orbiting planets and their satellites. His belief was that the planets moved in ellipses (flattened circles), not in true circles. In 1687, Isaac Newton wrote what is probably the single greatest intellectual achievement of all time. In a single book, he established the basic laws of force, motion, and gravitation and this enabled him to invent a new branch of mathematics, calculus. He did all this to show how the force of gravity is the reason that the planets' orbits follow Kepler's equations.

3 Konstantin Tsiolkovsky, a Russian school teacher, was the first to figure out all the basic equations for rocketry in 1903, without ever launching a single rocket himself! From his extensive reading, including Jules Verne, he concluded that space travel was a possibility, and that it was, in fact, man's destiny. He anticipated and solved many of the problems that were going to come up for rocket-powered flight and drew up several rocket designs. He determined that liquid fuel rockets would be needed to get to space and that the rockets would need to be built in stages. He concluded that oxygen and hydrogen would be the most powerful fuels for these rockets to use. He imagined 65 years earlier how the Saturn V rocket would operate for the first landing of men on the moon.

4 Robert Goddard, an American who is now called "the father of modern rocketry," was the man who designed, built, and flew the rockets. He was a university professor who also reached the same conclusions as Tsiolkovsky did. Goddard proved that the theory was true. He was also heavily influenced by the science fiction of Jules Verne, and he worked hard to develop rockets because he wanted to see them take us into space. When he first published his study, he proposed that it could be possible to use rockets to travel to the moon, and people thought he was crazy. In fact, the criticism was so strong that Goddard said little about his work after **that**.

5 In 1926, Goddard launched the world's first liquid-fueled rocket. In the course of his experiments in New Mexico, he virtually developed rocket technology. He invented everything required for modern rocketry and earned over 200 patents. By himself he developed the same components and designs that took the Germans hundreds of scientists and engineers and millions of dollars to develop independently at Peenemunde during World War II. Hermann Oberth was another man who, after reading Jules Verne's "From Earth to the Moon," became determined to find a way to travel to space. He independently determined the same rocketry principles as Tsiolkovsky and Goddard. The difference with Oberth is that he made the world believe that the rocket was something to take seriously as a space vehicle. Oberth was the only one who lived to see men travel through space and land on the moon. If he hadn't been so successful, we may never have made it to the moon.

A. What do the following refer to?

1. do this (para. 1) : _____
2. after that (para. 4) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Kepler believed that planets moved in true circles.

T F 2. Konstantin Tsiolkovsky launched a rocket himself.

T F 3. Tsiolkovsky saw the Saturn V rocket land on the moon.

T F 4. Oberth made people accept the rocket as a space vehicle.

C. Fill in each gap using the information in the text.

Goddard wanted people to travel to space, so he tried hard (1)_____. In his book, he wrote that people could possibly use rockets (2)_____. While he was doing (3)_____ in New Mexico, he developed a technology for rockets and earned a lot of (4)_____.

D. Answer the following questions.

1. What was Newton's book about?

   _____

   _____.

2. According to Tsiolkovsky, which liquid fuel rockets are the best?

   _____

   _____.

3. What role did Jules Verne play in space travel?

   _____

   _____.

FOOD & HEALTH

53 CORN

1 Corn grew naturally in both North and South America. Indians started planting it in gardens at least 5,000 years ago. The word *corn* means "our life" in their language. Some Indians ground their corn into flour and made corn bread. Columbus took corn to Europe and from there it spread to other continents.

2 Today corn is the second most plentiful grain in the world after rice. Farmers use corn to feed animals. However, corn is mostly used in the food industry as breakfast cereals, flour, starch and oil. It is also used as a sweetener in soft drinks. In addition to the farming and food industries, corn is used to make paper, paints, industrial alcohol and automobile fuel.

3 Nutritionally, corn is low in fat and calories. It contains 354 calories per 100 grams. It is rich in starch, lipids, proteins and carbohydrates. White corn does not have Vitamin A, but yellow corn contains a lot of Vitamin A. Both have some folacin, Vitamin C, lots of magnesium and potassium. Neither type contains niacin. Therefore, if corn makes up a large proportion of the diet, it might lead to pellagra, a disease caused by lack of niacin. Patients with pellagra have problems in their digestive and nervous systems. On the other hand, if sweetcorn is eaten cooked, it greatly reduces the chance of heart disease and cancer.

4 Corn seeds are planted from May until the end of June. The corn plant requires direct sunlight for at least eight hours a day to grow at its best. It takes 60 to 100 days for the grains to fully develop. As corn starts losing its sugar as soon as it is picked, storing it at the right temperature is very important.

A. Fill in each gap using the information in the text

Corn

History:

- planted by (1)_____ about 5,000 years ago
- means "our life" in Native American language
- used by Indians to make (2)_____
- brought to (3)_____ by Columbus

Uses:

i) In farming: to (4)_____

ii) In the (5)_____ : as breakfast cereals, flour, starch, oil, sweetener

iii) Others : to make paper, paints, industrial alcohol and automobile fuel

Nutrition:

- low in fat and calories (354 cal/100 gr.); rich in starch, lipids, proteins & carbohydrates
- White corn: contains folacin, Vitamin C, magnesium & potassium, but no (6a)_____ and (6b)_____
- eating mainly corn causes a disease called (7)_____
- eating cooked sweet corn lowers the risk of (8a)_____ and (8b)_____

Growing corn:

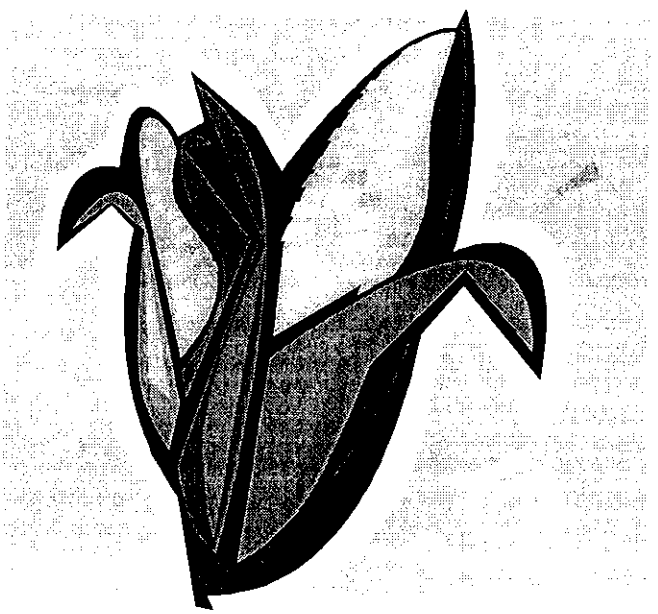
- needs about (9)_____ of direct sunlight a day
- the (10)_____ in it begins to decrease after picking up so must be stored at the right temperature

B. Mark the following statements True (T) or False (F).

T F 1. Corn was first brought to America from India.

T F 2. Yellow corn has not only Vitamin A, but also Vitamin C.

T F 3. Seeds planted in May can be picked at the beginning of June.



54 ALL YOU WANT TO LEARN ABOUT CORN

1 Corn is a plant which does not exist naturally in the wild. It can only ***survive*** if people plant this crop in their fields. It can be said that today corn still exists because it has been **cultivated** by farmers . In other words, people grew this crop in their fields.

2 The history of corn goes back to thousands of years ago. Scientists believe corn was originally grown by Indians of Central and South America at least 7,000 years ago. The Indians discovered that corn was good to eat and very nutritious. Their diet ***depended*** on this crop because it was an important ***source*** of food. They learned to use almost every part of the corn plant. They even used the leaves, which contain a large amount of sugar, as the first "chewing gum". They ate **immature** corn as a fresh vegetable, but once the kernels of corn became fully grown, they used it to make flour. By the time Christopher Columbus reached the New World in 1492, corn was grown in an area from southern Canada to the Andes Mountains of South America. When Columbus discovered America, he also discovered corn. Up to this time, people living in Europe didn't know about corn. Columbus and the explorers that followed him took corn back to Europe and introduced it to the world.

3 Corn is a member of the grass family of plants. It was started from a kind of wild grass called teosinte. Today's corn plant is much more different than its ancient ancestor, teosinte. **It** is much taller and produces a much larger ear. An ear of corn averages 12-14 inches in length and can produce about 800 new kernels. Each kernel can ***produce*** a plant which has one or more ears.

4 As a crop, corn controls American agriculture more than **any other**. Corn is planted on roughly 70-80 million US acres* with an annual production of about 9 billion bushels. Bushel is a term which is used to measure corn production. It is equal to 56 pounds of kernels which are ***removed*** from the cob. A single bushel of corn contains about 73,000 kernels.

5 Today there are many types of corn. The most common ones are flint corn, dent corn, sweet corn and, of course, popcorn. Flint corn, which is also known as Indian corn, has a hard outer shell and kernels with a ***range*** of colors from white to red. Today, most flint corn is grown in Central or South America. Dent corn, also called field corn, is often used as animal food. It is also the main kind of corn used when making industrial products and ***various*** food. It can be either white or yellow. Sweet corn is often eaten on the cob or it can be canned or frozen. It is not used for feeding animals or to make flour. Sweet corn gets its name because it ***contains*** more sugar than other types of corn. Popcorn has a soft starchy center which is covered by a very hard shell. When a kernel of popcorn is heated it bursts open and becomes soft and light. It's then eaten with salt and butter.

6 There are many uses of corn. It is good for feeding cattle and chickens. Many of the soft drinks you enjoy are sweetened with corn syrup. The ink which is used to print books contains corn oil. Ethanol is made from corn. Maybe, the car that carries you to and from school runs on fuel which contains ethanol. Corn is also used in such products as glue, shoe polish, aspirin, ice-cream and cosmetics. New ways of using corn are being developed every day.

* an acre: 4047 m2

A. What do the following refer to?

1. It (para. 3) : _____
2. any other (para. 4) : any other _____

B. Guess the meanings of the following words using the clues in the text.

1. Farmers **cultivate** crops. This means they _____ them.
2. If corn is **immature**, it is not _____.

C. Mark the following statements True (T) or False (F).

T F 1. Europeans learned about corn after Columbus discovered America.

T F 2. In America, corn production is nearly 9 million bushels a month.

T F 3. Dent corn is used more in industrial products than the other types of corn.

T F 4. Ethanol is a kind of fuel which is made from corn.

D. Fill in each gap using the information in the text.

* The Indians used the (1)_____ of the corn plant as chewing gum.
* Corn belongs to the (2)_____ of the plant kingdom. It was first developed from a plant called (3)_____ thousands of years ago by Indians living in America.
* A (4)_____of corn weighs 56 pounds.
* Flint corn and popcorn have something in common. There is a(n) (5)_____ which covers these two types of corn.
* Unlike (6)_____, sweet corn isn't used as animal food.

VOCABULARY PRACTICE:

A. The following words are bolded and italicized in the text. Write a definition for each of them using your dictionary. Find other forms of the words as well.

Word	Meaning	Other form(s)
survive (v.) (para. 1)		
depend (v.) (para. 2)		
source (n.) (para. 2)		
produce (v.) (para. 3)		
remove(v.) (para. 4)		
range (n.) (para. 5)		
various (adj.) (para. 5)		
contain (v.) (para. 5)		

B. Fill in the blanks with words from exercise A.

* No species can (1)_____ alone - everything is connected in an intricate web of life. In other words, in all environments, plants and animals (2)_____ on each other either directly or indirectly. A bear, for instance, needs the mountain berry crop in the fall to fatten up enough to make it through its winter hibernation. The berry bush, in turn, is (3)_____ on the bear and other animals to eat its fruit and then spread the seeds around the countryside. As can be seen, in the environment, cooperation is necessary for (4)_____.

* Many plant species are an important (5)_____ of food for humans and animals. Moreover, they release oxygen and (6)_____ carbondioxide from the atmosphere by photosynthesis. Plants support not just the food and planetary conditions required for life, but they also provide natural (7)_____ that are the basis of many medicines, dyes, clothing, paper and lumber.

* The earth is full of (8)_____ small organisms. These organisms are found in astronomical numbers throughout the world. In fact, just 2.5 acres of field may (9)_____ about 8.5 tons of different tiny organisms. They (10)_____ in size from the tiniest one called bacteria, algae and fungi, to the visible earthworms and insects.

55 TURKISH COFFEE

1 When the first coffee house in Istanbul was opened in the district known as Tahtakale behind the Spice Market in the 1550s, it attracted the attention of enthusiastic customers as well as religious people, who considered this strange new substance to be a harmful drug. In order to stop the spread of this new substance, they tried in vain to forbid its consumption, saying that it was sinful. Ships carrying loads of coffee were sunk in Istanbul harbour. Yet, despite all this opposition, coffee drinking spread very fast, and by the time of Murat III (1574-1595), there were over 600 coffee houses in Istanbul alone.

2 Coffee houses generally had an attractive view: Most had verandas and sometimes a decorative pool in the centre. Fashionable Turkish coffee houses served as gentlemen's clubs where men discussed literature and listened to Turkish classical music.

3 The wide variety of often beautifully ornamented equipment used for preparing and serving Turkish coffee could fill a museum on their own. The coffee is boiled in a long handled coffee pot known as *cezve*, which has its own distinctive shape, as do the tiny coffee cups. In the past, the porcelain coffee cups were produced at the Iznik or Kutahya potteries. Sets of Turkish coffee cups were later produced by European manufacturers for local European markets and known as 'a la turque' coffee sets.

4 People who know the taste of a well-prepared Turkish coffee expect their coffee to be heated slowly over pieces of coal or wood, the copper coffee pot being frequently taken away from the fire so that it won't get overheated. It is important to have froth on top of the coffee. A heaped spoonful of Turkish coffee and sugar is allowed for each cup as a general rule today, although in the past most Turks drank their coffee without any sugar. Instead, they customarily ate or drank something sweet either before or after the coffee. Another custom which has died out today is the addition of some aromatic substance such as jasmine, ambergris, cloves or coriander.

A. Find the words in the text which mean the following. Do not change the form of the words.

1. area (para. 1) (n.) : _____
2. unsuccessfully (para. 1) *(two words)* : _____

B. Fill in each gap using the information in the text.

* In the 1550s (1)_____ opposed the opening of coffee houses because they believed that coffee was (2)_____.
* In the past, coffee houses were like (3)_____. Men used to go there in order to (4)_____.
* Sets of Turkish coffee cups which were sold in local European market were called (5)_____.
* Some customs related to coffee have changed today. For example, in the past, instead of drinking it (6)_____, people had something sweet before or after. Moreover, it was common to add (7)_____ to coffee.

56 SALT

1 Although there is no direct evidence that salt is the cause of high blood pressure or 'hypertension', there are studies which indicate that reducing salt intake lowers blood pressure. Some scientists are also concerned that excessive use of salt may cause asthma and kidney disease. Therefore, most doctors would welcome a decision by food manufacturers to decrease the amount of salt in food.

2 Many food manufacturers, however, are reluctant to reduce the amount of salt. It is an important flavor enhancer and preservative. British Salt, the leading manufacturer of evaporated salt products in the United Kingdom, points out that salt is an essential nutrient and regular intake is required to maintain bodily functions. Moreover, according to British Salt, there are greater risk factors in hypertension, such as obesity, lack of exercise, alcohol intake and smoking. Another reason why food producers are not keen on lowering the amount of salt is probably that they fear that **this** will lower the sales.

3 A recent study, published in *The Lancet* of April 1999, proves that if manufacturers cut the salt content of food, it will not necessarily affect the taste of the product. Anthony Rodgers and Bruce Neal conducted a study to examine the difference in taste between bread with standard and reduced salt content. Three types of wholemeal bread were prepared, identical in all respects except for salt content. One loaf contained the standard quantity, one loaf 10% reduced and one 20% reduced. Sixty participants, who did not know the salt content, were asked to rate the taste on a scale from zero to ten. They also had to guess which loaf contained the standard, 10% reduced and 20% reduced quantity. Of the 180 guesses of salt content, 63 were correct, which is not different from what would be expected by chance.

4 The study by Rodgers and Neal indicates that small reductions in salt content will not necessarily affect sales. If food manufacturers decide to diminish the amount of salt in food, the blood pressure of the entire population will shift downwards, which may result in considerable health benefits. One of Britain's largest supermarkets, *Asda*, has already decided to decrease the amount of salt in its products. The *Asda* products will contain up to 25% less salt.

A. What does the following refer to?

1. this (para. 2) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. show (para. 1) (v.) : _____
2. unwilling (para. 2) (adj.) : _____
3. the same (para. 3) (adj.) : _____
4. reduce; decrease (para. 4) (v.) : _____

C. Mark the best choice.

1. According to the information in the text, excessive use of salt might be a risk factor for each of the following **EXCEPT** _____.

   a) asthma
   b) high blood pressure
   c) kidney disease
   d) obesity

2. Which statement is **TRUE** according to the information in the text?

   a) Doctors want food manufacturers to produce food with no salt.
   b) The purpose of the study conducted by Rodgers and Neal was to find out if reduced salt content would affect the taste of food.
   c) In the 1999 study, 63 out of 180 people were able to guess correctly which loaf had the standard salt content and which had the reduced salt content.
   d) *Asda*, one of the largest supermarkets in Britain, is going to reduce the amount of salt in its products by at least 25%.

3. The purpose of the text is _____.

   a) To inform the reader of the positive effects of salt on the human body
   b) To mention the causes of high blood pressure
   c) To show that manufacturers are not right in thinking that less salt means less tasty food and lower sales
   d) To warn the reader against excessive use of salt, which can be dangerous for health

D. Answer the following question.

1. Why is salt important in food manufacturing?

   _____

   _____.

57 MEAT? NO, THANKS

1 Even today, although many people are ***aware*** of the importance of a healthy diet, a vegetarian is often met with ***suspicion***, or at least with surprise. Although mouths express polite interest, eyes say that a vegetarian is a crank, someone to be regarded only with suspicious curiosity or distrust. Such attitudes were perhaps justifiable when the "hippy" movements of the 60s and early 70s had just started. Vegetarianism, as a ***conscious*** ideology or way of life, was relatively new **then** and was associated with questioning accepted social structures and conventions. Not surprisingly, members of older generations still ***treat*** the vegetarians of the 2000s with a ***similar*** sort of suspicion or intolerance. However, today, vegetarians can be found everywhere. As more information becomes available, more and more people are consciously turning to a meat-free diet. Their reasons for doing so are many and the potential benefits are even more.

2 Vegetarians have an enormous health advantage. One of the major health problems in modern societies is not too little, but too much food, especially in the form of animal fats. Medical evidence suggests that animal fats, including butter, contribute to the development of cholesterol in the human body. (Most vegetarians have low levels of cholesterol.) High amounts of animal fats seem to be part of the cause of heart disease. They also seem to lead to certain kinds of cancer, and vegetarians typically have less of these cancers than people who eat meat. Overall, studies comparing the health of vegetarians and meat-eaters show that the meat-eaters are twice as likely to die of heart disease as vegetarians are. In addition, animals such as cows and sheep are given various treatments so that they grow at very high rates. Logically, chemicals introduced into animal flesh are later ***consumed*** further up the food chain. Studies have indicated that growth hormone treatments and vaccines given to animals may be responsible for a variety of disorders including serious hormonal imbalances and hyperactivity in children. In short, better health is one reason that people choose to become vegetarians.

3 Increasing awareness of modern methods which in fact upset animals' natural life patterns is another factor which changes people's attitudes towards meat consumption. These methods ***include*** keeping cows in very small places which lack light and where they cannot move a lot, so their meat is softer and more delicious. Similarly, chickens are made to lay eggs more frequently by exposure to artificial periods of day and night. There are those who do not eat meat simply because they cannot accept or put up with the suffering that animals feel. **This group of vegetarians** believes that life, all life, is valuable, and that we do not have the right to destroy life to feed ourselves when there are other good sources of food.

4 Lastly, there are people who do not eat meat because of their religions, which prohibit the eating of meat. The largest of **these** is the Hindu religion, which has about 600 million believers in the world. Although not all Hindus are vegetarian, many are, and there are many other believers of other religions, such as Buddhism and even some Christian groups, who also do not eat meat.

5 These facts are available to everybody, and there are some who choose to ***react***. To these people, it seems that the best way to show their reaction is to boycott **the product**. Most vegetarians do not regard themselves as ideals or models; they simply express their concern and do what they believe is right. A vegetarian isn't necessarily a crank. A vegetarian is someone who simply doesn't eat meat.

A. What do the following refer to?

1. then (para. 1) : _____
2. This group of vegetarians (para. 3) : vegetarians _____
3. these (para. 4) : _____
4. the product (para. 5) : _____

B. Mark the best choice.

1. It can be inferred from the first paragraph that _____.
   a) vegetarianism is still considered as an ideology in today's world
   b) suspicious people pay a lot of attention to what they're eating and thus may easily choose to be vegetarian
   c) the hippy vegetarians were highly respected in the 60s and early 70s, but today they're not tolerated any longer
   d) a lot of people still consider a vegetarian to be an unusual person with unconventional approaches to life
2. It can be concluded from the text that _____.
   a) vegetarians are model people who have devoted themselves to changing people's attitudes towards animals
   b) vegetarians are not welcome in societies where people show their disapproval of meat-free diets
   c) a vegetarian is someone who —for various reasons— chooses to react and acts in the way he believes is right
   d) it is difficult to understand why very few people are excluding meat from their diet while effects of meat are obvious

C. Fill in each gap in the chart below using the information in the text.

The reasons why people do not eat meat

(1)_____	the suffering animals feel	(4)_____
e.g. The disorders which are linked with growth hormone treatments and vaccines given to animals may vary from (2a)_____ _____ to (2b)_____	e.g. Chickens are (3a)_____ _____ so that they produce more eggs. In the same way, cows are forced to live in very small places so that the meat obtained from them is (3b)_____ _____.	e.g. A lot of Hindu people as well as many Buddhists and some Christians do not eat meat.

VOCABULARY PRACTICE:

A. The following words are bolded and italicized in the text. Look them up in your dictionary and write their meanings. Find their forms in the text and write them in the space provided.

Word	Meaning	Other form(s) in the text and their part of speech
aware (adj.)		
suspicion (n.)		
conscious (adj.)		
treat (v.)		
similar (adj.)		
consume (v.)		
include (v.)		
react (v.)		

B. Fill in the blanks with the words from the table in exercise A.

Veganism is a philosophy and lifestyle which "(1)_____ seeks to exclude all forms of cruelty to animals for food, clothing or any other purpose; and by extension, promotes the development and use of animal-free alternatives for the benefit of humans, animals and the environment." Although the terms veganism and vegetarianism may sound (2)_____, they are quite different from each other because vegetarians simply avoid eating meat. Vegans, on the other hand, avoid not only the (3)_____ of all animal products, but also the use of articles made of bone, leather, feathers, or other materials of animal origin. People become vegans for a variety of reasons, (4)_____ a concern for animal rights, health benefits, religious, political, ethical, and spiritual concerns, and out of concern for the environment. They feel very sorry for animals, which are exposed to humans' cruel (5)_____, and think that by not being part of this cruelty, they express their (6)_____ to this violence.

Vegetarians claim that a diet without meat is much healthier. However, many people are (7)_____ about it. Doctors say vegetarians should be (8)_____ _____ of the fact that their diet lacks some essential vitamins, and thus they should take daily supplementary vitamin pills.

58 A HEALTHY DIET FOR EVERYONE

Sometimes, people are confused about what type of food is healthy, and what kind of food is unhealthy. In 1956, the USDA* described four basic food groups: meat (meat, fish, chicken, etc.), dairy (cheese, butter, etc.), grains (bread, cereals, rice, etc.), and fruit and vegetables. The USDA suggested how much of each food group was healthy to eat daily.

As a result of years of research, we know that too much animal fat is bad for our health. For example, Americans eat a lot of meat but only a small amount of grains, fruit, and vegetables. Because of their diet, they have high rates of cancer and heart disease. In Japan, in contrast, people eat large amounts of grains and very little meat. The Japanese have very low rates of cancer and heart disease. In fact, the Japanese live longer than anyone else in the world. Unfortunately, when Japanese people move to the United States, their rates of heart disease and cancer increase as their diet changes. Moreover, as hamburgers, ice cream, and other high-fat foods have become popular in Japan, the rates of heart disease and cancer are increasing there as well.

A healthy diet is important for children as well as adults. When adults have poor eating habits, their children usually do, too. After all, children eat the same way as their parents. When parents eat healthy food, the children will think it tastes good. Then they will develop good eating habits. Doctors advise parents to give their children healthier snacks such as fruit, vegetables, and fruit juice.

Everyone wants to live a long and healthy life. We know that the food we eat affects our health in different ways, so by improving our diet, we can enjoy many years of healthy living.

* USDA: U.S. Department of Agriculture. It is responsible for controlling the quality of food in the United States.

A. Fill in each gap using the information in the text.

According to the USDA, (1)_____.
In order to be healthy, we must consume a certain amount from each of them every day. Years of research has shown that too much animal fat is bad for our health. For instance, American people consume a lot of meat but not enough grains, fruit and vegetables, so (2)_____.
Japanese people, on the other hand, are quite healthy because (3)_____. _____. However, high-fat foods such as (4)_____ in Japan; as a result, there are now more cases of heart disease and cancer than in the past. According to doctors, many different diseases can be prevented if (5)_____ _____. Consumption of animal fat, however, can cause disease. Therefore, if we want to have a long, healthy life, we must (6)_____.

B. Answer the following question.

1. How can parents help their children develop good eating habits?

_____

_____.

59 JUNK FOOD & NO EXERCISE- THE NEW LIFESTYLE

1 In today's fast-moving world, people have less and less time to spend eating, let alone cooking. It is probably for this reason that junk food has become so popular, and there's no doubt that it's here to stay. In fact, it seems that people simply can't get away from **it**. So, what exactly is junk food? Basically, it is anything that is high in calories but lacking in nutrition. Hamburgers, crisps, chocolate bars and hot dogs fall into this category. Pizzas, although they can have vegetable and cheese toppings, are also included as they contain a lot of fat.

2 Obviously, a diet of junk food is not the best thing for your health, particularly as it is high in saturated fat. In 1993, the *Journal of the National Cancer Institute* reported **this type of fat** to be associated with a greater risk of cancer. Apart from the risk of cancer, gaining weight is another side effect of consuming junk food. The fact that obesity has become a world-wide health problem proves this. The best advice, then, for those who cannot live without their hamburgers or chocolate bars, is to limit the amount of junk food they consume. Eating junk food now and then will probably do no harm.

3 But, why have our eating habits changed? "Because people are short of time, and they have lost their tradition," says one expert. He explains that people are too busy to cook and eat proper meals, so they grab whatever is available - and that is usually junk food. Also, the style of life represented on TV, especially in music videos, is fast. Young people pick up the idea that speed means excitement, whereas anything traditional is slow and boring. As a result, they turn down traditional food and go for junk food instead.

4 Another alarming thing about people's lifestyles today is that while the amount of junk food they eat has increased, the amount of exercise they do has actually decreased. Exercise plays an important part in keeping the body fit and healthy: it helps to control weight and, if taken regularly, can also decrease the chances of having a heart attack in later life. What is more, one doesn't have to exercise much to gain visible benefits. Doctors say that twenty minutes' exercise three times a week is all that is necessary.

5 Even though people nowadays are actually far more aware of the importance of exercise and a healthy diet than they were a few years ago, the new unhealthy way of life is surprisingly popular. Thus, researchers suggest that the new generation will be much more likely to suffer from heart and liver disease. What can't be emphasized enough is the fact that a balanced diet and regular exercise bring significant health benefits. One way or another, the vast majority of people appear to be missing out on this, due mainly to the pressures of modern life. Ironically, if they were to make time to exercise and improve their eating habits, they would probably find that they were far better equipped to deal with their stressful lifestyles than they are now.

A. What do the following refer to?

1. it (para. 1) : _____
2. this type of fat (para. 2) : _____

B. Find the phrases in the text which mean the following.

1. once in a while, sometimes (para. 2) : _____
2. choose (para. 3) : _____

C. Complete the following sentences.

1. Pizza is considered junk food because _____.
2. People who consume too much junk food are faced with two health problems: (a)_____ and (b)_____.
3. The fast life style represented on TV makes the youngsters think that _____.
4. Taking exercise regularly not only keeps the body fit but also lessens the risk of _____.

D. Answer the following questions.

1. According to the author, what is strange about today's people?

   _____

   _____.

2. According to the last paragraph, what causes people to ignore the benefits of a balanced diet and regular exercise?

   _____

   _____.

60 HEALTHY EATING FOR DIABETICS

(1) e.g. E

Most of the functions of the human body are controlled by hormones. Insulin, a hormone produced by the pancreas, controls the sugar in the blood which is used by the body to generate energy. The insufficient production of insulin leads to a common disorder called diabetes.

(2) _____

Having diabetes does not mean giving up all your favourite foods and eating differently from family and friends. However, a sugar-free diet still remains the cornerstone of the treatment of diabetes. Nowadays, doctors recommend that people with diabetes should continue their lives as usual, but should follow a well-balanced and healthy diet.

(3) _____

The British Diabetic Association (BDA) has published guidelines to assist people who need to follow a special diet. The BDA recommends controlling bodyweight and reducing fat consumption. If there is a need to lose weight, realistic short-term targets are most helpful. Aiming for a slow but steady weight loss of one kilogram per week is ideal until the desired weight is achieved. Including more exercise in your daily routine and checking your weight once a week are also recommended.

(4) _____

It is also advisable to avoid cooking meals using large amounts of fat -- choose lean meat or low-fat items instead. Removing the skin from chicken and using fat-free milk are also good ways of reducing fat in the diet. Moreover, cutting down on the amount of butter and cheese by using the low-fat versions is recommended. Biscuits and cakes are also high in fat content.

(5) _____

Eating plenty of fruit and vegetables is highly recommended. Beans and lentils contain a considerable amount of a certain type of fibre which helps to bring down blood sugar levels after meals. Choosing brown bread and flour instead of white, and high-fibre breakfast cereals is also appropriate.

(6) _____

Foods like sweets, chocolate, cakes and biscuits should not be eaten as they usually contain high amounts of sugar and fat. In addition, less sugar must be used in cooking and "diet" drinks are preferable. Using an artificial sweetener instead of sugar also helps a great deal. It is also important to be careful with the sugar content of packaged food items by reading the labels and preferably deciding on a "diet" alternative.

A. Read the text and choose a suitable title for each paragraph. Be careful, there are MORE titles than you need.

A) BE CAREFUL WITH FOODS WITH A LOT OF SUGAR
B) THE IMPORTANCE OF WEIGHT CONTROL AND REGULAR EXERCISE
C) THE CONSEQUENCES OF DIABETES
D) AVOID HIGH-FAT FOODS
E) THE CAUSE OF DIABETES
F) EDUCATION AT THE BDA
G) ENJOY A NORMAL LIFE AS A DIABETIC
H) FOODS TO DECREASE BLOOD SUGAR

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. help (para. 3) (v.) : _____
2. regular (para. 3) (adj.) : _____

C. Fill in each gap using the information in the text.

* Although people who have diabetes are not expected to stop eating their favourite meals altogether, they need to follow a diet which is (1)_____ as this is still the basis of treatment of diabetes.

* The British Diabetic Association advises that people following a special diet should (2a)_____ and (2b)_____.

* It is a good idea for diabetics to eat (3)_____ since the type of fibre they contain can decrease (4)_____.

61 WILL GENETICALLY MODIFIED FOOD FEED THE WORLD?

1 If you want to start a heated discussion at a dinner party, bring up the topic of genetically ***modified*** foods. For many people, the idea of genetically altered, high-tech crop production raises all kinds of environmental, health and safety questions. Particularly in countries with a long tradition of agriculture, the idea seems against nature. In rich countries, there is a wide range of foods to choose from and a supply that easily meets the needs of the population. In developing countries, however, to feed fast-growing and underfed populations, the problem is simpler and much more urgent: Do the benefits of biotech outnumber the risks?

2 The statistics on population growth and hunger are disturbing. Last year the world's population reached 6 billion. And by 2050, the United Nations ***estimates***, it will probably be about 9 billion. Almost all that growth will occur in developing countries. At the same time, the world's available farming land is ***declining***. In fact, available farming land has declined steadily since 1960 and will decrease by half over the next 50 years, according to ISAAA (the International Service for the Acquisition of Agri-Biotech Applications).

3 The United Nations estimates that nearly 800 million people around the world are undernourished and the effects are deadly. About 400 million young women are iron ***deficient***, which means they don't have enough iron in their bodies. This also means their babies might be born with various defects or weaknesses. As many as 100 million children suffer from vitamin A deficiency, a major cause of blindness. Millions of people suffer from other ***major*** illnesses and nutritional deficiencies as a result of not having enough food.

4 How can biotech help? In an effort to produce nutritionally improved crops, biotechnologists have developed genetically modified rice that is strengthened with beta-carotene and additional minerals. Biotech can also ***improve*** farming productivity in places where food shortages are caused by crop damage due to pests (harmful insects), crop viruses, drought (lack of rain) or bad quality soil. Damage caused by pests is incredible. The European corn borer, for example, ***destroys*** 40 million tons of the world's corn crop annually, about 7% of the total. Adding pest-resistant genes into seeds can help restore the balance. In Africa, for example, crop production has increased ***significantly*** by using pest-resistant cotton. Viruses often cause great damage to basic crops in developing countries. Two years ago, Africa lost more than half its cassava crop —a key source of calories— because of the mosaic virus. Genetically modified, virus-resistant crops can reduce that damage. Similarly, in regions with very little rainfall, drought-tolerant seeds can reduce crop damage. Biotech can also help solve the problem of too much aluminum in soil, which can damage roots and cause crop failures. A gene that helps neutralize aluminum toxicity in rice has been identified recently. Many scientists believe biotech could raise overall crop productivity in developing countries as much as 25% and help prevent the loss of those crops after they are harvested.

5 In spite of all that promise, biotech is far from being the whole answer. In developing countries, crop loss is only one cause of hunger. Poverty plays the largest role. Today, more than 1 billion people around the globe live on less than $1 a day. Making genetically modified crops available will not reduce hunger if farmers cannot afford to grow them, or if the local population cannot afford to buy them because they're expensive. Another difficulty is the problem of food ***distribution***. Taken as a whole, the world produces enough food to feed everyone but much of it is simply in the wrong place. Especially in countries with undeveloped means of transport, geography restricts food availability and many biotech products won't even reach the regions where they are most needed. To overcome this problem, there is a need for better collaboration between governments and private biotech firms.

6 In brief, biotech is not a miracle but it promises to transform agriculture in many developing countries. If that promise is not fulfilled, the real losers will be their people, who could suffer for years.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. be greater than (para. 1) (v.) : _____
2. insufficiency; shortage (para. 3) (n.) : _____
3. limits (para. 5) (v.) : _____
4. cooperation (para. 5) (n.) : _____

B. Fill in each gap with <u>ONE</u> word using the information in the text.

* In countries with a history of (1)_____, the idea of genetically modified food is not expected to be popular among people.
* In developing countries, the (2a)_____ is growing rapidly, and unfortunately people have much less (2b)_____ than they actually need to be healthy. What makes the situation even worse is that there has been a (3a)_____ (3b) _____ in available farming land since 1960 and this is expected to continue even more in the future.
* Lack of (4)_____, which is a real problem for nearly 400 million young women, is one of the reasons why their babies might be born with various defects.
* The (5a)_____ value of some kinds of food can be improved by adding beta-carotene and (5b)_____.

C. Answer the following question.

1. What are the causes of hunger apart from the crop loss?
   a) _____.
   b) _____.
   c) _____.

D. Fill in the table below using the information in the text.

Problems which result in food shortages :	**Solutions with the help of biotech :**
Crop damage due to a) pests :	The balance can be restored with the help of (1)_____ added into seeds.
b) viruses :	Producing (2)_____ can reduce the loss which might lead to food shortages.
c) drought :	Using (3)_____ can be a solution if there's a water shortage.
d) soil that contains (4)_____ _____	A gene to neutralize the toxic effects has been found.

VOCABULARY PRACTICE:

A. The words in the following exercise are bolded and italicized in the text. Read the questions below and mark the best choice.

1. **Modified** (para. 1) can be replaced with a) changed b) produced
2. **Estimates** (para. 2) can be replaced with a) suggests b) guesses
3. **Declining** (para. 2) can be replaced with a) becoming smaller b) becoming more fertile

   What's the noun form of this word? _____.
4. If a person is iron **deficient** (para. 3), the iron in his/her body is too a) much b) little

   What's the noun form of this word? _____.
5. **Major** (para. 3) can be replaced with a) serious b) extreme
6. **Improve** (para. 4) can be replaced with a) worsen b) increase
7. **Destroys** (para. 4) can be replaced with a) damages b) finishes
8. **Significantly** (para. 4) can be replaced with a) a little b) a lot
9. **Distribution** (para. 5) can be replaced with a) delivery b) approach

B. Fill in the blanks using the correct form of the words in exercise A.

* For a long time now, doctors have referred to vitamin A, which is mainly found in animal products, dark green leafy vegetables, carrots, and mango, as the anti-infective vitamin. Below you will read some information about this vitamin. Vitamin A is a fat-soluble vitamin with four main functions in the body. Firstly, it helps cells reproduce normally. Secondly, it (1)_____ the quality of vision by maintaining healthy cells in various structures of the eye. Thirdly, it is necessary for normal growth and development of the embryo and foetus. Fourthly, it is required for normal reproductive function, with influences on the function and development of sperm, ovaries and placenta. However, (2)_____, or lack of Vitamin A leads to many serious health problems. To begin with, it is the main cause of total blindness and night blindness. Moreover, it (3)_____ worsens the effects of such illnesses as measles, tuberculosis, diarrhea. Lack of vitamin A also has (4)_____ effects on the immune system. The World Health Organisation (5)_____ that up to 230 million children, mainly in Asia and Africa, are at risk of VAD and that over one million VAD-related deaths occur each year. It is not only children, however, who are at risk. Also very old people are prone to health problems due to the age-related (6)_____ in the level of vitamin A in their body.

* The human population is growing rapidly. Therefore, humankind's greatest challenge will be to ensure sufficient food production on a global scale. That's why genetically engineered foods have become part of our lives. However, genetically engineered products have raised incredible controversy. Proponents argue that they are necessary in order to maintain food production that will match population growth and help feed millions in Third World countries more effectively. They also say genetically (7)_____ crops are more resistant to pests, which are considered as the biggest problem of the farmers as they (8)_____ more than half of the world-wide food production. Opponents, on the other hand, argue that GM products pose great risks for health. Besides, they say, there is more than enough food in the world and that the problem is food (9)_____, not production.

62 FOOD AND CULTURE

1 What kind of food do you like to eat? Do you eat raw fish? Dog meat? Cheese? People usually prefer to eat food from their own culture. In other words, they like eating food that they are familiar with. For example, the Japanese enjoy eating raw horse meat, but few Americans would want to taste it. Many Asians strongly dislike pizza, which is a very popular food in the United States. Milk is a very common drink in the United States for all people, young and old. In contrast, only babies drink **it** in China.

2 Some people do not eat particular food for religious reasons. For instance, Hindus do not eat beef because **they** believe cows are sacred. Similarly, Jewish people think pigs are not clean animals so they never eat pork.

3 Sociologists say that people prefer the food that they grew up with. As a cultural group, we learn to like and eat the things that we can find in our community. This is why in one place people eat horse meat and in another place **they** eat monkey brain.

4 Sometimes we need to change our eating habits. If we move or travel to a new place with a different culture, generally we can not find our favorite meals, so we may have to eat food that is different to us. Slowly, our tastes change and we begin to enjoy eating the food that once seemed unusual to us.

A. What do the following refer to?

1. it (para. 1) : _____
2. they (para. 2) : _____
3. they (para. 3) : _____

B. Answer the following questions.

1. What kind of food do most people like eating?

   _____

   _____.

2. Why don't Jewish people eat pork?

   _____

   _____.

3. What happens when we live in a foreign culture and have to eat food that is different to us?

   _____

   _____.

63 MEALS IN BRITAIN

1 A traditional English breakfast is a very big meal — sausages, bacon, eggs, tomatoes, mushrooms and so on. But today many people just have cereal with milk and sugar, or toast with marmalade, jam, or honey. The traditional breakfast drink is tea, which people have with cold milk. Many visitors to Britain find this kind of tea very strange and tasteless. Apart from tea, people drink coffee, often instant coffee, which is made with just hot water.

2 For many people, lunch is a quick meal. In cities there are a lot of sandwich bars, where office workers can choose the kind of bread they want — brown, white, or a roll — and then all sorts of salad and meat or fish to go in the sandwich. They can also go to pubs for lunch because these pubs serve good cheap food. School-children can have a hot meal at school, but many of them just take a snack from home—a sandwich, a drink, some fruit, and perhaps some crisps.

3 'Tea' not only means a drink but a meal as well. The meal includes sandwiches, cakes, and, of course, a cup of tea. Cream teas are popular. You have scones (a kind of cake) with cream and jam when you have a cream tea in a café.

4 The evening meal is the main meal of the day for many people. They usually have it quite early, between 6:00 and 8:00, and often the whole family eats together.

5 On Sundays many families have a traditional lunch. They have roast meat (beef, lamb, chicken, or pork) with vegetables and gravy, a sauce made from meat stock.

6 The British like food from other countries, too, especially from Italy, France, China and India. People often get take-away meals —you buy the food at the restaurant and then take it home to eat. Eating in Britain is quite international!

A. Mark the following statements True (T) or False (F).

T F 1. Today, breakfast is the most important meal of the day for British people.

T F 2. The traditional English tea with cold milk is very popular with visitors.

T F 3. British school-children don't have to bring their lunch from home.

T F 4. Dinner is usually a good occasion for many British families to come together.

B. Fill in each gap using the information in the text.

1. Working people can have their lunch at _____ and pubs.
2. When you order a cream tea in Britain, they bring you _____, _____, and _____ with tea.

C. Answer the following questions.

1. Why are pubs good places to go for lunch?

_____

_____.

2. What do British people eat at a traditional lunch on Sundays?

_____

_____.

3. 'The British like food from other countries, too, especially from Italy, France, China and India.' What does this show?

_____

_____.

64 HEALTHY DIETS FROM AROUND THE WORLD

1 The trick to finding healthy food, wherever it comes from, is to look carefully at its ingredients. No single cuisine - a country's distinct style of cooking - is all good or all bad. **Each** has something to teach us. The moral is simple: Whether you're eating Irish beef stew or French cassoulet, you need to know what's in it. With a little nutritional knowledge, you can sample some of the world's tastiest food and know you're also eating some of the best.

2 **China:** The Chinese have a balanced diet which is made up of about 69 percent carbohydrate, 10 percent protein, and only 21 percent fat. That's remarkably close to the mixture that Western nutritionists recommend. Rice, noodles, Chinese cabbage and mushrooms, along with other vegetables and small portions of fish and meat, are the staples of Chinese diets. That is, these are the most widely consumed food items in China. Recent medical research suggests that oriental mushrooms help boost the immune system and also have qualities that may help prevent heart disease. The downside of Chinese cookery, as in Japan, is the excessive use of soy sauce, which is extremely salty, and the use of monosodium glutamate (MSG), a meat tenderizer. MSG is as bad as salt if you're fighting high blood pressure, and it can also cause allergic reactions. For many people, when dining in Chinese restaurants it is best to ask for the MSG to be left out.

3 **Mexico:** Which Mexican dishes are best for health-conscious diners? Even though it is high in fat, guacamole is a surprisingly good choice. Guacamole is a thick mixture of avocado (a tropical fruit), tomato, onion, and spices, usually eaten cold with bread or chips. Most of the fat in avocado is monounsaturated, like the fat in olive oil, which is believed to lower cholesterol and be good for the development of cells. Seviche (fish marinated in lime juice) is low in fat overall; so are some chicken dishes like chicken tostadas, if **they** are not fried. In addition, in case you're wondering, the hot chili peppers of Mexican cuisine could actually be good for you, if you can tolerate the spiciness. Chili peppers, an inseparable ingredient of Mexican cuisine, are an excellent source of Vitamins A and C. They may even help you fight a cold, asthma, bronchitis, and sinusitis.

4 **Alaska:** Even in the remotest parts of the world, a health-food freak can find healthy diets. The tremendous amount of fish that Eskimos eat helps to prevent heart disease. Fish oil can be beneficial as it lowers blood pressure, cholesterol, and the blood's capacity to clot. A recent Dutch study showed that eating as few as two fish meals a week cut the death rate from coronary heart disease by half. Although it is very healthy, it is quite challenging to make such a monotonous diet tasty. One piece of advice is to carry one's own sauces when traveling to Alaska. A selected assortment of herbs and spices can do wonders to improve even the dullest dishes, and can make **them** even healthier.

5 **Italy:** In southern Italy, such staples as pasta, olive oil, garlic, and whole-wheat bread provide a true gift of health: protection from cancer and heart disease. Like oriental mushrooms, garlic is good for the heart and the immune system. When one is in Italy observing happy-looking and not-so-thin Italians, it may be hard to believe that their diet is healthy, but it is, and delicious too; so, when in Rome, do as the Romans do! Enjoy Italian food to your heart's content.

6 **Japan:** Two products of the soybean—miso and tofu—are healthy staples. Miso soup may fight cancer; tofu offers low-fat protein. Seaweed, the Japanese lettuce, is rich in many nutrients. On the other hand, Japan's smoked, salted, and pickled foods lead to a high incidence of stroke and stomach cancer.

A. What do the following refer to?

1. each (para. 1) : each _____
2. they (para. 3) : _____
3. them (para. 4) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. unique (para 1) (adj.) : _____
2. great, enormous (para. 4) (adj.) : _____
3. a variety, a group of similar things (para. 4) (n.) : _____

C. Fill in each gap using the information in the text.

* If you want to have a stronger immune system, you should eat (1a)_____ and (1b)_____.
* Fighting a cold, asthma, bronchitis, and sinusitis might be easier if you eat (2)_____ since they are rich in (3)_____.
* Although Japanese food is healthy in general, you should avoid eating (4)_____ _____.

D. Answer the following questions.

1. Why do nutritionists recommend the Chinese type of diet?

   _____

   _____.

2. What is bad about the Chinese diet?

   _____

   _____.

3. Which ingredient of guacamole is beneficial to health? Why?

   _____

   _____.

4. Why should a healthy diet include fish?

   _____

   _____.

65 CHANGING DIETS

1 What do most Americans and Canadians usually eat? Many people think that the typical North American diet consists of fast food—hamburgers, hot dogs, French fries, pizza, fried chicken, and so on. They think Americans and Canadians also eat a lot of convenience food, usually frozen or canned, and junk food—candy, cookies, potato chips, and other things without much food value. Unfortunately, they are not wrong. The American diet is generally high in sugar, salt, fat and cholesterol, and these substances can cause certain illnesses.

2 However, people's eating habits are changing. They are becoming more interested in good health and nutrition is an important part of health. Nowadays, North Americans are eating less red meat and fewer eggs, and they are eating more chicken and fish. These foods do not contain much fat, so they are healthier. Many people are also buying more fresh vegetables and eating them either raw or steamed to keep the vitamins.

3 The fact that restaurant menus are changing also shows people's growing interest in good food. The North American diet now includes food from many different countries. More ethnic restaurants are opening in big cities in the United States and Canada. Foods from China, Japan, Korea, Thailand, India, and the Middle East are very popular. Even fast-food places now offer low-fat hamburgers, roasted (instead of fried) chicken, and salad bars with a wide variety of fresh fruits and vegetables.

4 In the United States and Canada, food is a very common topic of conversation. People always discuss new dishes, restaurants, diet plans, and ideas about nutrition. The arguments about the best diets and foods will continue: Are vegetarians really healthy? Is a little alcohol good for relaxation? Can yellow vegetables really prevent cancer? One thing we know for sure: The key to good nutrition is balance. We can eat various kinds of food, control the quantities that we eat, limit fats, and do exercise.

A. Mark the following statements True (T) or False (F).

T F 1. American and Canadian people still continue their old eating habits.

T F 2. Today American people do not eat too much red meat anymore.

T F 3. Foods from other countries are not very popular among Americans.

T F 4. Nowadays, it is usually possible to find healthy food in the restaurants in North America.

T F 5. In the US and Canada, most people are sure that yellow vegetables prevent cancer.

B. Answer the following questions.

1. Why is American diet unhealthy?

_____

_____.

2. Why is eating chicken and fish healthy?

_____

_____.

3. What do people do in order to keep the vitamins of fresh vegetables?

_____

_____.

66 A VARIETY OF AMERICAN FOODS

1 The French are famous for their sauces, the Italians are ***praised*** for their pasta, and the Germans are **celebrated** for their sausages, but is there anything unique to eat in the United States? When you get right down to it, there's nothing quite as un-American as American food. The United States is made up mostly of ***immigrants***, which makes it a country with great cultural ***diversity***, so there is an amazing variety of foods, from clam chowder in Boston to chile con carne in Houston. New Mexico and Massachusetts are good examples of states that have very different traditional foods.

2 To understand and ***appreciate*** the food in any one region, it often helps to know the area's history. For example, New Mexico was once the home of the Pueblo Indians, who lived in villages and grew native crops, such as corn, beans, pumpkins, and squash. Later, Spanish settlers arrived in **this area**. These two groups ***exchanged*** ideas and customs and passed these customs on to their descendants. This intermingling of cultures is ***obvious*** in the food of New Mexico.

3 New Mexican meals make much use of corn that is **blended**, or mixed into soups or sauces. Native blue corn is quite delicious when it is served as blue corn bread, chips, or tortillas. In the markets of New Mexico, you can still find chicos, or sun-dried corn. Chicos last a long time, but when soaked and boiled, they taste almost like fresh corn. Many recipes also contain pinon or pine nuts, the small sweet seeds of the southwestern pine tree.

4 In New Mexico, a Spanish ***influence*** can be found in the Christmas cookies sold in bakeries. **They** are prepared much as they were made in the kitchens of seventeenth-century Spain for the Christmas feast. Some traditional foods of New Mexico that show both native American and Spanish heritage include enchiladas (corn tortillas stuffed with cheese, onions, tomatoes, and chilies, and sometimes chicken or beef), pinto beans, black beans, and hot and spicy salsa, an uncooked vegetable sauce.

5 When you take a trip to Massachusetts, which is in the Northeast, however, you will find neither a chili pepper nor a tortilla in a traditional meal. Influenced by the cold climate and the English-speaking people who settled there, the New England kitchen gives off the aromas of soups and stews and of meat that is roasted for hours in the oven. Potatoes, carrots, and turnips have always been popular because these root vegetables grow well in the region, and in the old days, they were preferred, for they could be stored all winter long before the introduction of refrigerators. As for the desserts, English-style puddings and pies are the traditional ones.

6 Whereas beef and chicken appear in many New Mexican recipes, in Massachusetts fish is very popular because of the nearby seacoast. New England is famous for its clam chowder, lobster, and fish cakes. English herbs and spices are the seasonings used in New England dishes, which might taste rather bland to people of the Southwest, who favor hot and spicy New Mexican food.

7 Not only New Mexico and Massachusetts but each region of the United States is ***unique*** and influenced by different cultures. Louisiana, for example, has a French influence, and the Midwest is ***populated*** by many Germans. Therefore, it is possible to find a variety of French and German dishes in Louisiana and the Midwest, respectively. In traveling around America, tourists have the ***opportunity*** not only to visit a variety of places and see diverse landscapes, but to taste different foods as well. Some may be quite unusual. **Others** will taste just like home.

A. What do the following refer to?

1. this area (para. 2) : _____
2. They (para. 4) : _____
3. Others (para. 7) : other _____

B. Guess the meanings of the following words using the clues in the text.

1. celebrated (para. 1) probably means : _____
2. blended (para. 3) probably means : _____

C. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. combination (para. 2) (n.) : _____
2. culture, tradition (para. 4) (n.) : _____
3. tasteless (para. 6) (adj.) : _____

D. Answer the following questions.

1. Why does the writer use the term "un-American" when he refers to the food in the US ?

   _____

   _____.

2. Why did people living in Massachusetts favor root vegetables when there weren't any refrigerators?

   _____

   _____.

E. Mark the best choice.

1. The 2nd paragraph is mainly about how _____ .

   a) history changed traditional Mexican dishes
   b) Pueblo Indians and Spanish people arrived in New Mexico
   c) the historical background of an area may affect the eating habits there
   d) the Spanish settlers changed the eating habits of Pueblo Indians

2. The 3rd paragraph is mainly about _____.

   a) the popularity and use of corn in New Mexican cooking
   b) different types of spices used in Mexican dishes
   c) the popularity of Mexican food in the US
   d) the Spanish influence on the traditional New Mexican food

VOCABULARY PRACTICE:

A. The words in column A are bolded and italicized in the text. Match them with a related word in column B and write the letter in the blank provided. Then write on the line whether the word in column B is the synonym or antonym.

A.	B.
_____ 1. diversity	a) inhabited
_____ 2. appreciate	b) common
_____ 3. unique	c) variety
_____ 4. populated	d) depreciate

B. The following words are bolded and italicized in the text. Mark the choice that does not collocate with them.

1.	**praise**	a) students	b) performance	c) failure	d) the winning team
2.	**exchange**	a) respect	b) money	c) goods	d) information
3.	**influence**	a) strong	b) considerable	c) enormous	d) affectable
4.	**obvious**	a) seem	b) look	c) give	d) become
5.	**opportunity**	a) take	b) miss	c) get	d) express

C. Fill in each blank with a suitable word from exercises A or B.

Studying abroad can be the adventure of a lifetime. In fact, it is a (n) (1)_____ experience for several reasons. To begin with, it provides students with the (2)_____ to learn a different language, and meet new people. Secondly, international study enables students to (3)_____ ideas and information with people from different cultures. Thus, students develop tolerance and respect necessary to (4)_____ cultural differences. Especially, schools with cultural (5)_____ contibute a lot both to students' personal and intellectual growth. Finally, many employers (6)_____ this kind of educational experience very highly. Therefore, it is (7)_____ that studying abroad has benefits for future career. Many statistics show that the great (8)_____ of study abroad on future career goals and choices is profound, especially for those students who participated in an internship while abroad.

67 LUCKY PEOPLE

1 In the Caucasus region, nearly 50 out of every 100,000 people live to celebrate their 100th birthday, and many don't stop at 100! The Pakistani Hunzas, who live high in the Himalaya Mountains, and the Vilcabambans of the Andes Mountains in Ecuador seem to share the same secret, too. This is very surprising because in America only 3 people in 100,000 reach 100.

2 These people remain healthy in body and spirit in spite of the passage of time. While many older people in industrial societies become weak and ill in their 60s and 70s, some people in the Caucasus region, aged 110 to 140, work in the fields together with their great-great-grandchildren. Even the idea of ageing is foreign to them. When asked, "At what age does youth end?" most of these old people had no answer. Several replied, "Well, perhaps at the age of 80." The youngest estimate was age 60.

3 What could be the reasons for this ability to survive to such old age, and to survive so well? First of all, hard physical work is a way of life for all of these long-lived people. They begin their long days of physical labor as children and never seem to stop. Mr. Rustam Mamedov, for example, is 142 years old, but he has no intentions of retiring from his life as a farmer. "Why? What else would I do?" he asks. Actually, he has slowed down a bit. Now, he might stop for the day after 6 hours in the field instead of 10.

4 All these people get healthful rewards from the environment in which they work. They all come from mountainous regions. They live and work at 1,660 to 4,000 meters above the sea level, where the air has less oxygen and is pollution-free. This reduced-oxygen environment makes the heart and blood vessel system stronger.

5 Another factor that may contribute to the good health of these people is their isolation. To a great degree, they are separated from the pressures and worries of an industrial society.

6 Inherited factors also play some role. Most of the longest-lived people had parents and grandparents who also reached very old ages. Therefore, good family genes may be a factor in living longer.

7 Finally, although these three groups don't eat exactly the same foods, their diets are similar. The Hunzas, Vilcabambans and Caucasians eat little meat. Their diets are full of fresh fruits, vegetables, nuts, grains, cheese, and milk. They never eat more food than their bodies need.

8 It is clear that isolation from urban pressures and pollution, clean mountain air, daily hard work, moderate diets, good genes, and a youthful approach to life all contribute to the health and remarkable long life of all these people.

Mark the best choice.

1. This text is mainly about _____.

   a) the differences in life span of the people the Caucasus region
   b) the factors that help people to have a long life
   c) the high percentage of long-lived people in some countries
   d) a comparison of the people who live in America and in the Caucasus region

2. The example of Mr. Mamedov (para. 3) is given to _____.

   a) show the experiences of these long-lived people
   b) describe the peaceful life of these long-lived people
   c) show that hard physical work actually lengthens life
   d) explain why he has to work as a farmer all his life

3. Which of the following is **NOT TRUE** according to the text?

   a) The most important factor that contributes to long life is good family genes.
   b) The daily diets of these people don't contain much meat.
   c) Living away from the problems of industrial societies plays a role in people's life expectancy.
   d) Several factors are important for people to have a long life.

4. According to the text, _____ .

   a) there are about 100,000 people in the Caucasus region who are 100 years old or over
   b) the Pakistani Hunzas and the Vilcabambans of the Andes Mountains are not as lucky as the Caucasus
   c) Most Caucasians agree that age 60 could be regarded as the end of youth
   d) the reduced-oxygen environment in mountainous areas is good for the heart and the blood vessel system

68 CAMPODIMELANS

1 Although she doesn't know it yet, three-month-old Cecilia, who was born in an Italian village called Campodimele, has a good chance of living at least 100 years. Not that her parents have discovered the secret to a long life — they are just lucky to have been born in Campodimele, a small village of 850 people in Italy. The mayor of the village claims that few Campodimelans die before the age of 85, and **many** live longer. His grandfather lived to 95, his grandmother to 97 and his aunt to 100. More than 90 people in the village are aged between 75 and 99 — a surprising number, which led the World Health Organisation (WHO) to send scientists to the village to investigate. They discovered that the old people's cholesterol levels were far lower than newborn babies' cholesterol levels.

2 The oldest villager, at 99, thinks that hard work as well as taking regular exercise can help you live longer. A favorite activity among the older people is going to see the village chickens. A long street leads from the village to dozens of stone chicken houses on a hill. Getting there can mean a good hour's walk and sometimes they do this twice a day. People also think that the villagers' easy-going nature and sense of emotional balance also helps. Nobody suffers from depression and old people don't get lonely because they live with their families. Life is unhurried, stress is unknown and traffic is banned from the centre of the village.

3 During the study carried out by WHO in Campodimele, the researchers found that the blood pressure of the elderly in the area moved up and down far less than **that** of the majority of Italians. Stable blood pressure helps people live for a long time. The study also looked at the children and grandchildren of the elderly and discovered that they also had much lower blood pressure than the average. This was confirmed by the same study done on a group from the village who went to live in Canada in the 1960's. Their blood pressure was also low and this led the scientists to believe that the secret of why they live so long could be in the Campodimelans' genes. However, this is not the whole answer.

4 In Campodimele, old people walk for at least two hours daily, eat at the same time each day, get up at dawn and go to bed at sunset. Baby Cecilia's 93-year-old great grandmother thinks that eating lots of spring onions is the key to a long life. She eats them raw, **dressed with oil**, vinegar and red pepper. Her grandson was so impressed with her recipes that he has opened a restaurant. The menu is very Mediterranean. There are lots of fresh vegetables, beans, wild mushrooms, almost no butter and very little salt. The local specialty is a dish of peas which is often served with homemade pasta or snails. **Either side dish** adds to the taste of the peas and makes it a perfect meal for celebrating your hundredth birthday.

A. What do the following refer to?

1. many (para. 1) : many _____
2. that (para. 3) : _____
3. either side dish (para. 4) : _____

B. Mark the following statements True (T) or False (F).

T F 1. New born babies' cholesterol levels aren't nearly as low as the old Campodimelans'.

T F 2. Salt or butter is not used very much in Mediterranean dishes.

C. Mark the best choice.

1. "Although she doesn't know it yet," (line 1) means she doesn't know that _____.

   a) she was born in an Italian village
   b) her parents have discovered a secret
   c) she will probably live for a long time
   d) she is only three months old now

2. What is a unique feature of all Campodimelans?

   a) They are highly emotional.
   b) They have low blood pressure.
   c) They have the same genes.
   d) They have never left the village.

3. Which of the following does Cecilia's grandparent attribute long life to?

   a) Walking for two hours a day
   b) Always eating at the same time
   c) Getting up and going to bed at the same time
   d) Eating raw spring onions

4. Which of the following can be inferred from the text?

   a) Loneliness is one of the reasons why people live so long.
   b) Apart from genes, lifestyle might be responsible for a long life.
   c) The majority of Italians live long.
   d) Staying awake till late hours shortens one's life .

5. dressed with oil (para. 4) probably means oil is _____ to spring onions.

   a) served
   b) added
   c) preferred
   d) consumed

D. Answer the following questions.

1. Why did WHO start an investigation in Campodimele?

   _____

   _____.

2. Which groups did the WHO investigate apart from the elderly people of Campodimele?

   a) _____

   b) _____

69 RAIN FOREST REMEDIES

1 The teacher and the student sit facing each other on the floor of the open-sided hut in Western Samoa. The teacher is Salome Isofea, a young healer who is demonstrating her art. The man opposite her, a Westerner named Paul Alan Cox, is not an ***ordinary*** student. He is a botany professor at Brigham Young University in Utah, a world specialist in medical plants. To people **here**, he is known as Nafanua, in honor of a god who once protected the village and its forests.

2 Salome is explaining a traditional cure for pterygium, an eye disease common to the tropics, in which vision gradually becomes obscured as a layer of tissue covers the cornea. The traditional cure used by healers is leaves of *Centella asiatica*, which Salome chews and then spreads on a piece of cloth and places as a compress on the afflicted eye for three consecutive nights. Before this can be done, Salome explains, there is another ***crucial*** part of the cure. Holding a bowl containing ashes, she scatters them in the direction of Cox, who is playing the patient. When he asks why the ashes are necessary, she replies that they ***enhance*** 'spiritual transmission' between the healer and the patient.

3 All Samoan healers are women who learned their art from their mothers, who in turn taught it to their daughters. Now the knowledge of the recipes and their administration, even the location of the plants in the forests, are ***endangered*** as more and more daughters abandon the long training period in favor of using Western medicine. For this reason, the discovery of young practicing healers like Salome delights Cox, who believes that only people like her can prevent the loss of centuries of knowledge. If he can carry Salome's knowledge to the developed world in the form of plants whose chemical compounds might help combat ***incurable*** diseases—notably cancer, AIDS, and Alzheimer's—the enthusiasm to save the Samoan rain forest, and all forests, will be much stronger.

4 According to Gordon Cragg, chief of the National Cancer Institute's natural-products branch, nature produces chemicals that no chemist would ever dream of at the laboratory bench. This is encouraging for biologists and environmentalists who are ***concerned*** about the **dwindling** of the planet's biodiversity, mostly concentrated in an area around the equator. Human activity, from farming to logging and road building, is driving countless species to extinction even before they have been discovered. "I see ethno-botany—the study of the relationship between people and plants—as the key to the preservation of this ***vast*** collection of species, as well as a pathway to halting many diseases," says Cox.

5 Major technological advances in testing processes have helped Cox and other ethno botanists immensely. Pharmacologists must analyze between 10,000 and 17,000 chemical compounds before finding **one** with the potential to be tested to achieve the desired result in humans. Until recently, animal testing and clinical trials of a single drug required an average 12 years of research and cost up to $300 million. However, initial screening can now be done in a matter of days without using animals. Molecular biologists can isolate enzymes that can ***trigger*** human exdiseases, then expose those enzymes to a plant's chemical compounds. If a plant extract blocks the action of a particular enzyme, they know the plant has drug potential. By extracting specific chemicals from the leaves, roots or bark and testing each sample individually, scientists can ***determine*** which of the plant's thousands of compounds actually blocks the enzyme.

6 As a result of these advances, about 100 U.S. companies are searching out plants. Drug companies and scientific institutions are collaborating on field research all over the globe to study as many natural substances as possible before **they,** or the native people who use them, disappear. Some work with a group of ethno-botanists like Cox, who know a lot about indigenous people, to search out **drug candidates.** Others use a different approach, mass-collecting plants whose chemical compounds might contribute to new drugs.

7 Cox has spent years in Samoa interviewing traditional healers and learning their trade of healing by working as their apprentice, i.e. trainee. He knows that if the rain forests of Samoa continue to disappear, hundreds of potential drugs hidden there may never be found. Therefore, he spends much of his time trying to preserve the forest area that remains. More than 80% of the rain forest has already been logged because that's the only way Samoans can earn money. However, Cox aims at offering cash-poor Western Samoans an alternative to having their forest cut down. He believes they can earn money by preserving their forest, their wealth, instead of selling it to loggers.

A. What do the following refer to?

1. here (para. 1) : _____
2. one (para. 5) : one _____
3. they (para. 6) : _____

B. Mark the best choice.

1. Pterygium is an eyesight problem_____.
   a) the cure for which has been found by Salome Isofea
   b) the remedy for which is to chew the leaves of *Centella asiatica*
   c) which can be cured with the help of a tropical plant applied to the eye
   d) which causes sudden loss of vision
2. Which of the following is **NOT TRUE** according to paragraph 3?
   a) Cox is hopeful the art of traditional Samoan healers will continue to be practiced by young healers.
   b) Saving the forests in Samoa can receive more attention as long as healers make use of nature.
   c) Cox will introduce healers like Salome to the world so that they can find cures for illnesses.
   d) What young Samoan healers know about plants can be beneficial in the treatment of some incurable diseases.

3. dwindling (para. 4) probably means _____.

   a) increasing
   b) levelling out
   c) declining
   d) outnumbering

4. drug candidates (para. 6) are _____.

   a) plants
   b) ethnobotanists
   c) indigenous people
   d) drug companies

5. Cox does all of the following **EXCEPT** that he _____.

   a) works with traditional healers to learn their art
   b) heals patients by using the remedies of traditional healers
   c) tries hard to preserve the rain forests in Samoa
   d) wants to show Samoans the way of making better use of the forest

C. Answer the following questions.

1. Why does Salome think ashes are important for the healing?

   _____

   _____.

2. According to Cox, what is the significance of ethnobotany?

   _____

   _____.

D. Fill in each gap using the information in the text.

* The art of traditional healing is in danger of disappearing because instead of spending a lot of time to learn it, young Samoan girls prefer (1)_____ _____.

* Molecular biologists are carrying out experiments to see if a certain plant (2)_____ _____. To learn this, they separate enzymes which can (3)_____. Then they expose the enzymes to the chemical compounds of a plant and observe whether or not a plant extract can actually stop (4)_____.

VOCABULARY PRACTICE:

A. The following words are bolded and italicized in the text. Match them with the definitions. Put the letters on the lines provided.

_____ 1.	ordinary (adj.) (para. 1)	a)	extremely large
_____ 2.	crucial (adj.) (para. 2)	b)	decide
_____ 3.	enhance (v.) (para. 2)	c)	worried
_____ 4.	endangered (adj.) (para. 3)	d)	improve
_____ 5.	incurable (adj.) (para. 3)	e)	at risk of extinction
_____ 6.	concerned (adj.) (para. 4)	f)	cause something bad to start
_____ 7.	vast (adj.) (para. 4)	g)	usual
_____ 8.	trigger (v.) (para. 5)	h)	cannot be healed
_____ 9.	determine (v.) (para. 5)	i)	extremely important

B. Fill in the blanks below with words from exercise A.

The (1)_____ majority of the world's nations recognize that family planning is extremely important to improve the welfare of a country and to maintain a livable world. Family planning plays a (2)_____ role in reducing poverty and improving living conditions. Moreover, it (3)_____ the quality of a woman's life as women with lower fertility are better able to take advantage of educational and employment opportunities than women with large families. More importantly, it is also necessary in the fight to prevent the spread of a(n) (4)_____ disease, AIDS. Besides these, family planning is vital to maintain ecological balance. If the population growth is not under control, wild habitats that protect (5)_____ plants and animals will be cleared to open farm lands or residential areas. The destruction of forests and the loss of species will (6)_____ much bigger problems such as floads and erosion. Accordingly, governments that are (7)_____ about their future try to implement effective birth control policies. Some countries even go further and they (8)_____ the number of children a family can have and impose fines on families who break the birth-control regulations. For instance, in Tibet, while (9)_____ people are allowed to have two children, employees of the state only one.

70 TYPICAL OR NOT?

1 If the idea of a fitness routine makes you feel exhausted and if you shiver even at the thought of jogging round the park in the winter wind, then *Qigong* might be just the right form of exercise you are looking for. It won't tire you a lot but will guarantee you good physical conditioning.

2 This new gentle form of oriental gymnastics is composed of a system of meditative exercises. These exercises involve standing motionless in a series of **postures** for half an hour a day, or combining simple movements with breathing exercises. Although this type of exercise does not build muscles, it is quickly growing in popularity. The reason for this is that in addition to its simplicity, it is a good way of reducing stress, stimulating the circulation and strengthening the body's immune system.

3 *Qigong* means training your energy, and is compared to acupuncture without needles. According to Chinese beliefs, *qi* is the vital energy which circulates within the human body and throughout nature. *Qi* is thought to flow along the system of body channels just like blood does. Consequently, *Qigong* is based on the hypothesis that illnesses and psychological problems are caused when the natural energy flow is blocked. *Qigong* directs energy to the troublespot, and thus can be used in treating illnesses like asthma and hypertension. This holistic method has also been shown to be successful in treating obesity. A Dutch patient who was taken by her father to a *Qigong* practitioner two years ago says: "I wasn't sure, at the beginning, if the result would be good. I'd tried so many diets, but none had worked." Once she started the *Qigong* routine, her weight began to drop, despite only small changes in her diet. "I can't believe that I weigh 50 kg. less than I used to and it's not difficult at all. Since I started doing the exercises I haven't been so hungry and I've had more energy, so I'm more active" she says.

4 Chinese practitioners have found it difficult to persuade the Western mind of the powers of *Qigong*. However, governments that want to cut down healthcare costs are **endorsing** *Qigong*, although medical science cannot explain it. In Germany, for example, *Qigong* is available on the national healthcare system, and many doctors are prescribing it for aches, insomnia and allergies. Many patients who have suffered from allergies for years have found that, since starting *Qigong*, they haven't been ill at all, or only suffer from very slight allergic reactions.

5 In Europe, it has been mostly used to treat relatively minor conditions, but recently *Qigong* has achieved dramatic results with more serious conditions. In one case, a French air stewardess was told by her doctor that she only had a few months to live because she had cancer. **Conventional** treatment, including chemotherapy and all kinds of medicine, had been unsuccessful. It made her so ill that she nearly died. After starting *Qigong*, however, the patient immediately began to feel better and was able to return to work. Even more surprisingly, the doctors couldn't find any traces of the disease. While this may sound like a miracle, one should point out that *Qigong* may not necessarily cure everyone, as it depends on how much exercise the patient gets and on the individual's psychological motivation. Nevertheless, even if it does not cure the patient, it has the potential to prolong his/her life.

A. Mark the best choice.

1. *Qigong* could be the right kind of exercise for those who _____.
   a) are good at breathing exercises
   b) would like to build their muscles
   c) want to keep fit without exercising too hard
   d) cannot do without a fitness routine
2. **Postures** (para. 2) are _____.
   a) movements that a person makes
   b) forms of gymnastics to build muscles
   c) positions of the body
   d) breathing exercises to reduce stress
3. If governments **endorse** (para. 4) something, they _____.
   a) warn people against the dangers of it
   b) give permission for it and support it
   c) enforce laws to get rid of it
   d) quit practicing it in different fields
4. A **conventional** (para. 5) method of treatment is a _____.
   a) new alternative to traditional methods
   b) unique method in healing
   c) holistic approach to treating illnesses
   d) commonly known and widely practiced method
5. Which of the following is **TRUE** according to the text?
   a) Qigong and acupuncture are similar in that needles are used in both.
   b) With Qigong, a person can lose weight without making any changes in his/her diet.
   c) Western people have not been convinced easily of the power of Qigong
   d) In serious conditions it takes a long time to achieve results with Qigong treatment

B. Fill in each gap using the information in the text.

1. According to the Chinese beliefs, *qi,* the vital energy, is similar to blood because they both _____.
2. According to the hypothesis that *Qigong* is based on, a block in the natural energy flow may result in (a)_____ and (b)_____.
3. *Qigong* is used in order to cure (a)_____, (b)_____, (c)_____, (d)_____, as well as obesity and even much more serious conditions like cancer.
4. The German _____ is an example of where doctors advise their patients to use *Qigong*
5. The two factors which determine the success of *Qigong* in treating an illness are: (a)_____ and (b)_____.

C. Answer the following question.

1. Why are more and more people becoming interested in *Qigong*?

_____

_____.

71 ACUPUNCTURE

1 Today in most western cultures acupuncture is considered a "new alternative" medicine. In reality acupuncture is a practiced medical treatment that is over 5,000 years old. Very basically, acupuncture is the insertion of very fine needles into the skin in order to influence the physiological functioning of the body.

2 The first record of acupuncture is found in the 4,700-year-old Huang Di Nei Jing. This is said to be the oldest medical textbook in the world. It is said to have been written down from even earlier theories by Shen Nung, the father of Chinese Medicine, who documented theories about circulation, the pulse, and the heart over 4,000 years before European medicine had any concept of **them**.

3 As the basis of acupuncture, Shen Nung theorized that the body has an energy force running throughout it. This energy force is known as Qi (roughly pronounced as Chee). The Qi consists of all essential life activities which include the spiritual, emotional, mental and physical aspects of life. A person's health is influenced by the flow of Qi in the body, in combination with the universal forces of Yin and Yang. If the flow of Qi is insufficient or unbalanced, Yin and Yang become unbalanced, and illness may occur. Qi travels throughout the body along "meridians" or special pathways, which are the same on both sides of the body (paired). There are fourteen main meridians running vertically up and down the surface of the body. Out of these, there are twelve organ meridians in each half of the body. There are also two unpaired midline meridians. The acupuncture points are specific locations where the meridians come to the surface of the skin, and are easily accessible by "needling". The connections between **them** ensure that there is an even circulation of Qi, a balance between Yin and Yang. Energy constantly flows up and down these pathways. When they become obstructed, Yin and Yang are said to be thrown out of balance, which causes illness. Acupuncture is said to restore the balance.

4 There are a few related procedures that fall into the range of acupuncture treatments. The first is electro-acupuncture. This is the use of very small electrical impulses through the Acupuncture needles. This method is generally used for analgesia (pain relief or prevention). The amount of power used is only a few micro amperes, but the frequency of the current can vary from 5 to 2,000 Hertz. The higher frequencies are generally used for surgery (usually abdominal), and the lower frequencies for general pain relief. The first reported successful use of electro-acupuncture was in 1958 in China for a tonsillectomy. Today, it is a common method of surgical analgesia used in China. Besides electrical impulses, lasers and sound waves are also used for stimulating acupuncture points. This is called Sonopuncture. A very commonly used treatment is auriculotherapy, or ear acupuncture. The theory is that since the ear has a rich nerve and blood supply, it would have connections all over the body. For this reason, the ear has many acupuncture points which correspond to many parts and organs of the body. Auricular acupuncture has been successful in treating problems ranging from obesity to alcoholism to drug addiction. There are numerous studies, either completed or currently going on, which affirm auricular acupuncture's effectiveness. Another popular treatment method is moxibustion, which is the treatment of diseases by applying heat produced by burning specific herbs on acupuncture points. Acupuncture and moxibustion are considered complementary forms of treatment, and are commonly used together. Moxibustion is used for ailments such as bronchial asthma, bronchitis, and certain types of paralysis.

5 Acupuncture is also used in treating addictions to alcohol, tobacco (nicotine) and "hard" drugs. It can rid the body of the physical dependency; however, cannot rid the mind of the habit. For this reason, acupuncture treatment of addictions has not been fully successful.

A. What do the following refer to?

1. them (para. 2) : _____
2. them (para. 3) : _____

B. Fill in each gap using the information in the text.

According to Shen Nung, there is an (1)_____ that runs through the body. This is

called Qi. The flow of Qi has a very important effect on (2)_____

because it contains all the necessary life activities. (3)_____ flow of Qi also unbalances Yin and Yang, which are as important as Qi and thus a person may get sick.

C. Fill in each gap in the chart below using the information in para. 4.

Acupuncture treatments

The treatment	How it is carried out	What it is used for
(1)_____	(2)_____ _____ are used through the needles.	Higher frequencies: surgery Lower frequencies: (3)_____
Auriculotherapy	The needles are inserted into the (4)_____, which has many acupuncture points corresponding to different parts of the body.	Various health problems such as (5)_____ _____.
(6)_____	(7)_____ are burned and the heat produced is applied to acupuncture points.	bronchial asthma

D. Answer the following question.

1. Why is acupuncture not very effective in the treatment of addictions?

_____

_____.

72 WHERE DID THEY COME FROM?

1 In the modern world, transportation and the spread of products have made almost any foods and drinks available all over the world, but many of the foods that we eat today originally were eaten or grown in only one part of the world. The origins of various foods are interesting. Tomatoes, for example, are originally from the Americas, and so are potatoes. **Both** were first taken to Spain and spread from there to the rest of Europe and, eventually, the rest of the world. Today they are so **common** all over the world that it is difficult to imagine they were unknown outside of the Americas only five hundred years ago.

2 One food that is rapidly spreading throughout the world is the hamburger. The hamburger has many **variations**. The basic hamburger of the past was made of chopped or ground beef that had been fried and put between two halves of a round roll or bun. Today it may still be eaten **plain** or with additions. In modern fast-food shops, hamburgers are sold in what seem like hundreds of variations. The cheeseburger, a hamburger fried with a slice of cheese on top, is a common variation. Today, modern hamburgers are eaten with many different additions, including lettuce, tomato, mustard, ketchup, pickles, and onions.

3 As recently as twenty years ago, the hamburger was a basic food in the United States, Canada, and some European countries, but it was not eaten in many other countries. Now, energetic business people are taking the hamburger to South America, Japan, the Middle East, and China. Hamburgers have an interesting history. They were made at one time in the German city of Hamburg, but the custom of chopping meat, i.e., cutting it into small pieces, was begun by the Tartars of Central Asia more than a thousand years ago. **They** chopped the meat of cows because the meat was tough, and they often ate the meat uncooked. Many centuries later, Russian Tartars carried the custom of eating chopped meat to Germany. Germans began to eat chopped meat also, and in the city of Hamburg, chopped meat was eaten both cooked and **raw** and became known as "Hamburg Steak." In the late nineteenth century, German immigrants to the United States brought this custom to the New World. By the early part of the last century, Americans were eating hamburger steaks between slices of bread and calling the sandwich "hamburger." The sandwich spread quickly throughout the United States.

4 Pasta is an Italian word for a large group of foods made from wheat flour, cut and formed into various shapes, eaten after being boiled in water, and usually combined with a sauce. Spaghetti, macaroni, and noodles are all forms of pasta, but pasta, especially in Italy, can have over five hundred shapes and sizes. It is not clear where pasta originated. The usual explanation is that noodles were first made in China over three thousand years ago. When Marco Polo, the Italian traveler, returned to Italy from China in the 1300s, he is said to have returned with the idea of making pasta. According to the story, the Italians took the Chinese idea and developed it into the many forms of pasta we have today. Other historians, however, can show that the Italians were eating a kind of ravioli, or a meat and vegetable filling inside a pasta shell, long before Marco Polo returned from China. So we really do not know if pasta was invented in China and carried to Italy or if it was invented in both places.

5 Italians eat about fifty pounds of pasta per person every year. People in the United States eat only about seven pounds per person. Pasta is a good food. It has a lot of carbohydrates, and carbohydrates are now thought to be a very important ingredient in human nutrition. Pasta is also low in fat. Since pasta can be cooked and eaten in so many different ways, and because it is eaten in so many different countries, it must be called one of the basic foods of the world.

6 Sauces are used in cooking almost everywhere. In fact, it is difficult to define the word sauce because **it** is used in so many different ways. Sauces are cooked and added to foods such as pasta. They may also be uncooked, such as the white mayonnaise that is used on many sandwiches. One simple sauce which has become universal on dinner tables all over the world is ketchup. Actually, the word ketchup entered the English language before the sauce that we know today did. The word ketchup is from a Chinese word something sounding like ke-tshiap, which was used to mean "a kind of sauce for food." But ke-tshiap did not have any tomatoes in it, and modern ketchup is made mostly of tomatoes.

7 British sailors liked the ketchup sauce they found in Asia and took the idea back home to England. During the 1700s, ketchup was a common sauce used all over England. It still did not contain tomatoes, though. It was the Americans who first added tomatoes to the sauce. From 1800 to 1850, the recipe for ketchup changed until **it** became mostly a tomato sauce and also became a sauce used in almost every American kitchen. Ketchup spread from the United States to many other parts of the world, completing a journey that had begun many centuries earlier in China. Therefore, types of food, just like ideas and manufactured goods, often begin in one place and spread, often with many changes in form, from one place to another.

A. What do the following refer to?

1. Both (para. 1) : _____
2. They (para. 3) : _____
3. it (para. 7) : _____

B. Mark the best choice.

1. common (para. 1) probably means _____.

   a) inexpensive c) not good
   b) special d) well-known

2. variations (para. 2) probably means _____.

   a) ingredients c) different types
   b) pieces d) chopped meat

3. plain (para. 2) probably means _____.

   a) with nothing added c) fried
   b) quickly d) with a lot of extras

4. raw (para. 3) probably means _____.

   a) full of taste c) nutritious
   b) uncooked d) ordinary

C. Mark the following statements True (T) or False (F).

T F 1. Americans were the first people who grew tomatoes and potatoes.

T F 2. Twenty years ago, people living in South America, Japan, and the Middle East did not know what a hamburger was.

T F 3. Eating chopped meat was first introduced to the Americans by the people who immigrated from Germany.

T F 4. Spaghetti, macaroni, and noodles are the only forms of pasta in Italy.

T F 5. An Italian consumes about seven times as much pasta each year as an American does.

T F 6. People should avoid eating pasta because it has a lot of fat.

D. Answer the following questions.

1. What is pasta, according to Italian people?

_____

_____.

2. How is modern ketchup different from the Chinese ke-tshiap?

_____

_____.

E. Fill in each gap using the information in the text.

The origin of pasta is not exactly known. Some people believe that the Chinese first made (1)_____ more than three thousand years ago. Then in the 1300s, the Italian traveler (2)_____ brought this idea to Italy when he came back from China.

According to this belief, (3)_____ that we have today were developed by the Italians. Some historians, however, say that long before the 1300s, Italians were familiar with a kind of ravioli, a pasta shell with (4)_____ in it.

OCEAN

73 OCEAN EXPLORATION

1 Although there has always been great interest in the mysteries of the oceans, it has only been in recent decades that modern technology has ***enabled*** scientists to start exploring the ocean floor. As recently as the 1960s, scientists made developments in sounding and recording what happened under the sea. However, they had to ***rely*** on irregular reports from ships that were on the surface of the water. The data that were collected were unreliable, so new methods of reaching the ocean floor had to be ***developed***.

2 Many nations took part in efforts to develop new ways of discovering the secrets of the oceans. They were interested in ***exploring*** areas containing rich mineral deposits, as well as documenting the wide variety of life forms found in the depths. They were also interested in ***investigating*** the earth's structure. The first step was to make maps of the ocean floor, which enabled scientists to guide submarines and ***prevent*** **them** from having accidents, as the seabed is covered with mountain ranges, plains and valleys, which can be dangerous for submarine vehicles. Detailed knowledge of the floor of the seas and oceans was also needed to better understand the ***constant*** movements of the earth's surface, such as the creation of new mountain ranges as a result of the eruption of volcanoes. In fact, such an eruption was witnessed by the crew of the *Alvin*, a unique type of submarine.

3 In April 1991, after a one-and-a-half-hour descent to the bed of the Pacific Ocean, the crew of the *Alvin* did not see the sea life they expected. Instead, they saw a scene of ***disaster***. The temperature outside the *Alvin* began to increase, and the crew realised they had arrived right after a volcanic eruption. Although they saw no movement of lava, they knew they had a unique chance to learn something. They had come to this particular spot because cameras had spotted an area that was rising rapidly. There had also been an increase in active hot springs. Scientists found out that there had just been a volcanic eruption. Fresh lava, which was discovered to be less than two weeks old, lay on the seabed. There was a huge hole in the seabed and nothing was left alive. The scientists dropped a marker so that they could find the spot easily on return visits. There would be a chance to record the chemical and geological changes and the renewal of plant and animal life.

4 **Since then**, scientists have been there twice. They went there first in March 1992 and then in December 2003. In 1992, they saw that the seabed had changed rapidly since the explosion. For example, tube worms had reached a giant size: they had grown to a length of about two meters. Scientists also found out about mineral chimneys that allow fluid and steam to escape from the lava. In fact, this was the first time scientists were able to see the growth of these chimneys from birth. They also witnessed the development of an underwater 'plumbing' system. They took samples from the chimneys for analysis and measured the temperature of

the seawater by putting thermometers into the chimneys. The *Alvin* happened to be in the right place at the right time. Thus, exciting discoveries have been made to help us understand the mysteries of the ocean depths.

A. What do the following refer to?

1. 'them' (para. 2) : _____
2. 'Since then' (para. 4) : Since _____

B. Find the word in the text that means the following. Write only ONE word on the line, and do not change the form of the word.

1. huge (para. 4) : _____

C. Mark the following statements True (T) or False (F).

T F 1. In April 1991, the crew of the *Alvin* descended to the bed of the Pacific to observe the changes in sea life after the volcanic eruption.

T F 2. Before 1992, scientists had never been able to see the growth of mineral chimneys from birth.

D. Answer the following questions.

1. Give **two** reasons why many countries wanted to learn more about the oceans.
   a) _____
   b) _____
2. Why can the ocean floor be dangerous for submarine vehicles?
   _____
   _____.
3. What did the scientists on the *Alvin* hope to investigate on their return visits?
   _____
   _____.
4. How did scientists investigate the mineral chimneys?
   _____
   _____.

VOCABULARY PRACTICE:

A. **Use your dictionary to find the meaning and the other forms of the following words, which are bolded in the text.**

Word	Meaning	Other form(s) if any
enable (v.)		
rely (v.)		
develop (v.)		
explore (v.)		
investigate (v.)		
prevent (v)		
constant (adj.)		
disaster (n)		

B. Fill in the blanks with a suitable word from exercise A.

Biodiversity is often defined as the variety of all forms life, from genes to species, through to the broad scale of ecosystems. This combination (1)_____ the ecosystem to possess the ability to prevent a variety of (2)_____ such as fire, disease, or major climate changes and recover from them. Therefore, it is vital that people preserve biodiversity and do their best to (3)_____ the extinction of animal and plant species. Nevertheless, throughout history, humankind has caused (4)_____ destruction to nature, which resulted in the loss of biodiversity. Many governments that are aware of the importance of biodiversity have tried to (5)_____ effective strategies to manage and protect environmental resources and they have allocated more money to do a more detailed (6)_____ of diversity.

Why is loss of biodiversity such a big deal? Well, the loss of diversity reduces the quality of life for all people and may, in fact, be a survival issue for communities who (7)_____ directly on productive natural lands to meet their daily needs.

How can public awareness be aroused about such an important issue? Many people think that the responsibility falls on environmental activists, who might be of help by launching educational campaigns that (8)_____ the impact of diversity on people's lives.

74 SAVING THE UGLY

1 Going out onto rolling seas before dawn to scare away man-eating sharks may not be a dream job, but for Jim Lumb, the work has its reward: he protects swimmers on Sydney's beaches from "the jaws" of the ***deep***. Now, he also helps protect sharks from humans. "You see a fin coming out of the water and it's wonderful," says Mr. Lumb, as he moves his 50-foot boat named Sea Rogue along the long nets that keep sharks away from swimming areas.

2 Last December, Australia passed a law protecting two endangered shark species, ending the time-honored task of "shark police," who merely killed the feared creatures. Now they must preserve them - even the Great White shark - by releasing, i.e., setting them free if they are entangled in the beach nets. Australian officials say that the number of Great Whites has decreased off the coast, mainly because of fishing. Australia has joined California, Florida, Namibia, and South Africa in protecting sharks. The government has put the Great White and the less-threatening Gray Nurse shark on its list of ***endangered*** species. It has also told Australia's fishermen that if their nets snag a live Great White or Gray Nurse, they should ***release*** it - if **they** can do so without being bitten. However, some shark police aren't too pleased with the new rules. Lumb's son, James, who also works on the Sea Rogue, believes that the ***prospect*** of freeing a Great White is extremely dangerous. "There's just not any way you could **do it**," he insists. Fortunately for Lumb and other workers, they are exempt from penalties if a protected shark is killed in a net. While the Lumbs have yet to save a Great White, they do what they can to release smaller, harmless sharks like the Port Jackson, named after Sydney's harbor. "

3 "We just want to prevent sharks from coming to the beaches. If I didn't catch a shark at all, I'd be happy," Jim says. He and his colleagues move their mesh nets, each 164 yards long, between beaches to try to prevent sharks from ***establishing*** territories. **They** are taken away during the winter, when fewer people visit the beach. Jim estimates he catches about 50 sharks on his beat each season. Most die as they struggle to break ***free*** from the nets.

4 Famous for its surfing and life-saving culture, Sydney became the first place in the world to try to make **its** beaches "shark-proof" following a spate of attacks in the 1920s and 1930s. The mesh nets first appeared around the city's beaches in 1937. Since then, nets have been placed around other beaches. The Australian government estimates that roughly 500 great whites are killed off the coast each year, and only 10,000 ***remain*** in this part of the world. They are often caught inadvertently by fishermen. These few sharks that are caught by accident bring high prices in Asia, where shark fin soup is a delicacy. Other shark parts are used in health and beauty products. Between 1990 and 1996, Australia recorded 45 shark attacks, resulting in seven deaths. Yet, sympathy for the great white has grown due to concern that the fish may disappear. Australia's Environment Minister, Robert Hill, says people now not only want to preserve the *furries and cuddlies*, or cute and lovely animals such as the panda, but also species viewed as ***threatening***.

A. What do the following refer to?

1. they (para. 2) : _____
2. do it (para. 2) : _____
3. They (para. 3) : _____
4. its (para. 4) : the beaches of _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. caught (para. 2) (v.) : _____
2. make a great effort (para. 3) (v.) : _____
3. almost (para. 4) (adv.) : _____
4. accidentally (para. 4) (adv.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. Australia is the first country to try to protect the sharks.

T F 2. Some of Jim's colleagues aren't happy about the decision of the Australian government to release certain sharks.

T F 3. Shark police will be punished if a protected shark die because of the net

T F 4. Sharks are not only used in health and beauty products.

T F 5. As a result of the shark attacks between 1990 and 1996 many people stopped feeling sympathy for the White shark.

D. Answer the following questions.

1. What does Jim Lumb do?

_____

_____.

2. What sharks are endangered species in Australia?

_____

_____.

3. How does Sydney try to make its beaches shark-proof?

_____

_____.

VOCABULARY PRACTICE:

A. **Use a dictionary to find the different forms of the following words and then use the most suitable form to complete the sentences given.**

Verb	Noun	Adjective	Adverb
		deep	
	----------	*endangered*	----------
release		----------	----------
----------	*prospect*		----------
establish			----------
		free	
remain			----------
		threatening	----------

1. During an earthquake, energy is _____ when rocks under stress slide past one another along a fault, or fracture in the Earth's crust.
2. It is widely known that financial crises _____ poverty and income inequality.
3. Recently the _____ of 2,000 soldiers have been discovered in a mass grave in Vilnius, the Lithuanian capital. They are believed to be the soldiers from Napoleon's army, killed by cold, hunger and disease during the French emperor's disastrous invasion of Russia in the winter of 1812.
4. _____ of speech is often regarded as a basic right in modern liberal democracies.
5. The government intensified its efforts to secure the _____ of the politician taken as hostage in Iraq.
6. The new government has said the only way to curb unemployment is to _____ new areas of employment.
7. With the advance of the Human Genome Project, the time is approaching when _____ parents will be able to choose their favorite embryo from a range of alternative ones.

8. Due to the _____ of a war in Iran, the price of gold in Turkey soared.

9. Surviving tough times can _____ the relationship of a couple.

10. During the financial crisis last year, even the _____ firms were faced with bankruptcy.

11. The robbers _____ to kill the bank manager unless their demands were met.

12. The history of women in Western and other societies, particularly in the nineteenth and twentieth centuries, included a struggle to break _____ of traditional roles.

13. Many people perceive a lack of media diversity as a _____ to democracy.

14. At most schools in Turkey, children are not encouraged to express their ideas _____.

15. The dumping of toxic wastes at sea directly _____ not only marine life but also human lives.

16. Even if the Supreme court closed the case against the former minister, the public would think the most important questions have _____ unanswered.

17. Over a quarter of the world's languages are spoken by fewer than 1,000 people, and soon there may be nobody who knows them. These small (a) _____ languages are usually restricted to small geographic areas. In many cases, the few (b)_____ native speakers of these languages are mostly older.

18. Academics and employers are _____ concerned that students are not sufficiently prepared for business life.

19. Many people think the _____ of a juvenile crime advisory committee might be effective in dealing with young criminals.

20. Environmentalists believe that the _____ of global warming will eventually force many nations to slow down their energy consumption.

21. Doctors warn that severe asthma can be life-_____ and requires professional medical help.

75 Exploring The Depths Of The Ocean

1 Doctor Bob Ballard is an aquanaut — an explorer of the world's seas and oceans. He has visited the bottom of oceans in a mini-submarine and ***explored*** such things as the *Titanic* and the German battleship *the Bismark*. Most recently he has discovered the ship *Lusitania*, which sank off the coast of Ireland in 1915. Ballard has made these visits alone since he joined the Deep Submergence Laboratory in 1967.

2 Making these visits, however, is very difficult. The mini-submarines which only have room for one man and take over two hours to reach the sea-bed, and then can only stay there for three hours. Because of these problems, Ballard has ***developed*** two robot submarines which send him information 24 hours a day. These robots are known as the Argo-Jason system. The Argo is lowered by cable from a ship on the surface of the ocean and it follows the floor of the ocean and sends back new information **which** helps Ballard and his team to make maps.

3 The Jason, however, is smaller and is a true robot. It can move completely independently across the ocean floor. For instance, although it was still attached to the surface ship, it actually went inside the *Titanic*. Jason has two control systems. It can be directed from the surface ship, or it can be programmed by computer before it goes down. Either way, it is small enough to get within a centimeter of its ***target***.

4 At one time, the quality of the pictures which Jason sent back to the ship was not very good. New technology, however, has ***enabled*** Jason to send back clear, full color television pictures to the surface ship. An operator can sit in the ship, surrounded by television screens, and see everything Jason is filming. Ballard says **it** is almost the same as being in the submarine himself. At his home by the sea in America, Ballard has built an electronic centre. By using satellite links he can send other robots, just like Jason, to various underwater spots all over the world without ever leaving his house!

5 Despite the use of new technology, Ballard says that only a tiny part of the ocean floor has been explored. For example, the Mid-Atlantic Ridge, a huge underwater mountain range, is the Earth's largest geographical ***feature*** yet it was discovered under the ocean after man had already walked on the moon.

6 Ballard dreams of people living under the sea in the 21st century. According to him, problems such as energy ***shortage*** and overcrowding can be solved by man making use of parts of the ocean. He believes that many people think Mars is a friendlier place to live than under the sea, and that many are afraid of the idea of living under the sea. He says that people have always been afraid of the unknown, and that we must **rise above** these fears. If we continue to live with our fears, we might never find answers to our questions. Ballard, in short, thinks people should start considering living under water.

A. In which paragraphs do you find the following topics? Match the topics with the paragraph numbers.

paragraph 2 _____ a) The ocean floor on television screens

paragraph 4 _____ b) Solution to a problem

paragraph 6 _____ c) Living under water

B. Mark the following statements True (T) or False (F).

T F 1. After 1967, Ballard did solo explorations beneath the ocean.

T F 2. Mini-submarines could work for 24 hours under the water.

T F 3. Jason has always sent back clear pictures.

T F 4. Ballard can control underwater robots from his house.

T F 5. According to Ballard, many parts of the ocean floor are still not explored.

C. Mark the best choice.

1. **which** (para. 2) refers to _____.

   a) the Argo
   b) the surface ship
   c) the floor of the ocean
   d) new information

2. The Jason is different from the Argo in that _____.

   a) the Jason provides Ballard and his team with information for a whole day
   b) the Jason can move on the ocean floor freely
   c) the Jason is controlled by a surface ship
   d) there is an operator in the Jason

3. **it** (para. 4) refers to _____.

   a) being an operator
   b) seeing Jason
   c) having many TV screens
   d) watching what Jason is filming

4. **rise above** (para. 6) probably means _____.

   a) remain unaffected by
   b) increase
   c) live with
   d) affect

5. The text is from _____.

   a) a novel
   b) a scientific magazine
   c) a scientific lab report
   d) an encyclopedia

6. The writer's purpose is to _____.

   a) give instructions to explore the ocean floor
   b) persuade the readers to build underwater cities
   c) describe the developments in techniques for building submarines
   d) inform the readers about Ballard and his robots

D. Answer the following questions.

1. What is the advantage of Jason's being small?

   _____

   _____.

2. According to Ballard, what may prevent people from considering life under water?

   _____

   _____.

VOCABULARY PRACTICE:

Fill in the blanks with the bolded and italicized words in the text. The definition of the correct word is given in brackets.

How do we fit the learning to children, not the children to learning? How and why do we personalize learning?

To get the best out of our children, we need to understand how they learn and then provide the resources and teaching strategies that (1)(***supply with opportunity***)_____ them to learn in the most effective way. Information and Communication Technology (ICT) is one of these ways which helps pupils to (2)(***find out***)_____ information from various sources.

ICT can be used to give students more learning options and help schools organize, manage and administer the curriculum in more imaginative, effective and flexible ways. With the use of this technology, the lessons need not to be boring. For example, by using the animation (3)(***characteristic***)_____ in PowerPoint, even the most theoretical lesson becomes fun for the learners to follow. Even more interestingly, in schools where there is a (4)(***lack***)_____ of specialist teachers, such as Mathematicians, students can participate in virtual lessons by linking up to other schools or classes via video conferencing. To sum up, ICT has an important role in assisting schools to (5)(***form***)_____ more effective learning programs. However, in this process, teachers play the key role. They are expected to be open to use ICT in a meaningful way in their teaching. Teachers must have the adequate infrastructure. Therefore, in order to achieve this operational (6)(***goal***)_____, maximum attention should be pad to teacher training.

76 WHAT IS AN MPA?

1 A Marine Protected Area (MPA) is an area of the ocean that is protected by law in order to preserve areas of high biological importance. It is similar to a national park; an MPA tries to ***conserve*** the life and habitat within. This can ***include*** the sea floor and all the life above it in the water.

2 Human activities that destroy the habitat or endanger a species by removing too many individuals are banned in an MPA. Marine biologists have identified mining, oil exploration and aquaculture, as some activities that may be ***destructive*** and need to be stopped in areas that have to be protected. Different MPAs may have different ***goals***; therefore, in some, fishing may be allowed, whereas others may be no-go zones for anyone.

3 Marine Protected Areas may become an important tool for creating permanent fisheries. Past fishery management simply tried to limit the amount of fish caught; **it** did not consider ***entire*** ecosystems. An MPA can be designed to protect important habitats. MPAs can also function to save endangered species by protecting their habitat. Protected areas are beneficial for conservation, but they are also good for improving fisheries and increasing local economic opportunities.

4 When they are properly managed and ***enforced***, Marine Protected Areas have been effective in protecting and rebuilding many marine species. The numbers of certain fish and other species often increase in the waters next to a protected area as well. This is a good thing for ***local*** fisheries. It is called the "**Spillover Effect**". If an area is protected from fishing, the fish in that area will be able to grow older and bigger. Larger fish are able to produce more eggs and therefore more juvenile fish. When these **juveniles** grow up, and the MPA becomes too full, as there are no fences in the ocean, the fish will move out of the area and into fishing grounds where they can be caught by fishermen. A couple of years after MPAs were established in Spain, fisheries reported 50-80% higher catches next to these protected areas. MPAs seem to be doing the job scientists thought **they** would.

Taken from Ocean link: Ocean-News

A. What do the following refer to?

1. it (para. 3) : _____
2. they (para. 4) : _____

B. Answer the following questions.

1. What is the similarity between a national park and an MPA?

   _____

   _____

2. What kind of activities do marine biologists forbid in an MPA?

   _____

   _____

3. Apart from conservation, why are MPAs important?

   _____

   _____

C. Mark the best choice.

1. 'juveniles' (para. 4) probably means _____.
   a) older fish
   b) younger fish
   c) male and female fish
   d) fish eggs
2. Which of the following is an example of the 'Spillover Effect'?
   a) Protecting an MPA from fishermen.
   b) Not having fences around an MPA in the ocean.
   c) An increase in fish populations next to an MPA.
   d) An increase in the size of the fish.
3. Which of the following is **TRUE** according to the text?
   a) MPAs are also useful for rebuilding many marine species
   b) All MPAs are no-go zones for people
   c) MPAs are the most suitable places for aquaculture
   d) After the establishment of MPAs, more fish were caught in these areas.

VOCABULARY PRACTICE:

A. The words in the following exercise are bolded and italicized in the text. Fill in the blanks with a suitable word from the box.

whole	**regional**	**protect**	**harmful**
involve	**implemented**	**aim**	

1. **Conserve** (para. 1) can be replaced with _____
2. **Include** (para. 1) can be replaced with _____
3. **Destructive** (para. 2) can be replaced with _____
4. **Goal** (para. 2) can be replaced with _____
5. **Entire** (para. 3) can be replaced with _____
6. **Enforced** (para. 4) can be replaced with _____
7. **Local** (para. 4) can be replaced with _____

B. Read the paragraph below and fill in the blanks with a suitable bolded word from exercise A.

Southeast Asia contains one quarter of the world's (1)_____ coral reefs, one of the planet's most diverse ecosystems. However, this rich biodiversity is under threat of development, pollution, overexploitation, (2)_____ fishing, and unsustainable tourism. There have been lots of efforts to (3)_____ the reefs, and one of the most serious organizations is the International Coral Reef Action Network (ICRAN). It is a joint initiative and their main (4)_____ is to protect the coral reefs. ICRAN's activities (5)_____ legislation schemes, training, infrastructure development, field survey, and pilot projects. They emphasize the fact that there is a need for increased involvement of (6)_____ communities. They also point out that unless the laws are (7)_____ more effectively, efforts will not mean much.

FLIGHT

77 DESIRE TO FLY

1 Man has long wanted to fly. He saw birds, envied them and tried to imitate them. Over the ages, countless attempts were made: men ***constructed*** wings, fastened them to their arms and legs and jumped off towers and hill tops. These 'bird-men' flapped their wings for a short space of time and then fell to the ground. What was not realized in those early years was that birds have muscles very much stronger, in proportion to their size, than men. Human limbs cannot provide ***sufficient*** strength to lift the body off the ground. The secret of flight did not lie in making wings, but in discovering the right kind of power, and how to use it.

2 In the 18th century, the invention of the hot-air balloon by the Montgolfier brothers of France was seen as a great step forward. In 1783, in the presence of the King and Queen, it took three passengers safely up into the air and down again: **they** were a sheep, a cock and a duck. Later, ballooning became a fashionable pastime rather than a means of transportation. The cigar-shaped airships which were invented slightly later did not solve the problem of flying because they had no means of power or control: their designers could not find an engine strong enough yet light enough to drive the aircraft. The airship went where the wind blew it, could lose height and could easily catch fire, so as a means of passenger transport it turned out to be neither practical nor safe.

3 So the difficulty remained: a true flying machine which was heavier than air and ***capable*** of carrying people was still to be invented. Experiments were carried out in many countries, sometimes with models driven by steam engines, but **these** were too heavy to be used in an airplane with a pilot. The answer finally came at the beginning of the 20th century with the invention of the internal combustion engine – the kind used in motor cars. Here at last was a powerful, yet comparatively light engine, driven by petrol and capable of being fitted into an airplane. In 1903, two Americans, the brothers Wilbur and Orville Wright, flew a powered airplane for the first time. Their success ***encouraged*** designers everywhere. Although there were now new, different problems, mainly to do with safety and the ***training*** of pilots, progress was rapid. These were exciting days and interest was ***intense***. At Reims, in 1909, a crowd of a quarter of a million ***gathered*** at the first Air Display, and saw thirty-eight different aircraft take part. The age of the airplane had arrived.

A. What do the following refer to?

1. they (para. 2) : _____
2. these (para. 3) : _____

B. Mark the best choice.

1. The 'bird-men' failed to fly because _____.

   a) the wings they constructed were not suitable for flying
   b) their arm and leg muscles were too weak to support them during a flight
   c) they did not prepare themselves properly for the flight
   d) their bodies were too big compared to those of birds

2. The earliest hot-air balloon invented by Montgolfier brothers _____.

   a) was constructed for transporting the royal family
   b) succeeded in taking off but failed to land safely
   c) was initially aimed at encouraging a new kind of leisure activity
   d) was considered a remarkable advance in the field of flying

3. Which of the following is **TRUE** about the cigar-shaped airships?

   a) They were an effective and successful means of passenger transport.
   b) Their engines were light but not powerful enough to drive the airship.
   c) They couldn't be flown along an exact route.
   d) The internal combustion engine was first experimented on them.

4. Large numbers of people traveled to Reims in order to _____.

   a) see the latest developments in flying
   b) watch the new pilots being trained
   c) celebrate the achievement of the Wright brothers
   d) discuss the questions of safety with the designers

VOCABULARY PRACTICE:

A. The words in the following exercise are bolded and italicized in the text. Match them with the definitions. Put the letters on the lines provided.

_____	1. construct (v.) (para. 1)	a) the process of learning the skills you need to do a particular job or activity
_____	2. sufficient (adj.) (para. 1)	b) come together
_____	3. capable (adj.) (para. 3)	c) very strong
_____	4. encourage (v.) (para. 3)	d) build something or put together different parts to form something whole
_____	5. training (n.) (para. 3)	e) having the ability, power or qualities to be able to do something
_____	6. intense (adj.) (para. 3)	f) enough
_____	7. gather (v.) (para. 3)	g) give someone hope or confidence

B. Use a dictionary to find the different forms of the following words and then use the most suitable form to complete the sentences given.

Verb	Noun	Adjective	Adverb
construct		----------	----------
----------		*sufficient*	
gather		----------	----------
----------		*capable*	
encourage			
	1. training *2.* *3.*		----------
		intense	

1. Next month, there will be a _____ of world leaders in Vienna to discuss problems related to energy.
2. It is being debated that studying music _____ self-discipline, self-expression and self-confidence.
3. People think the Ministry of Education and school administrations should _____ their efforts to eliminate violence in schools.
4. The judge decided that the evidence presented against the defendant was not _____ enough to convict him.
5. It is very popular among wealthy people to have a personal (a)_____ to help them exercise. These specialized people determine the duration and (b)_____ of exercise that is safe and effective for these people.
6. Most living things are _____ of adaptation when they are forced to do so; that is they can change to take on different functions in different situations.
7. Angry crowds _____ to protest outside the courthouse during the trial of the man accused of raping and killing a seven-year-old girl.
8. Although he was _____ to be a doctor, he chose to become an actor.
9. It has been scientifically proven that people experience differences in their physical and mental _____ depending on the time of the day.

10. Building and (a) _____ toys, such as Lego develop necessary skills and imagination in young kids. They have a sense of achievement when they (b) _____ toys from scratch.

11. Law enforcement uses (a)_____ dogs for tracking suspects, finding missing persons or for detecting drugs or explosives. These animals have an outstanding sense of smell, so they can easily follow scent trails, detect certain kinds of odors. They are even (b)_____ of detecting bodies that are under running water.

12. All the students who do not want to study in prep school are required to take the proficiency exam to show that they have a _____ amount of English to follow their classes in the department.

13. The content of the course had to be changed as more than half of the _____ were not happy with it and claimed they did not benefit from what they were taught.

14. Throughout the editing of this book, we have been given a lot of support and _____.

15. Some doctors claim that women's skin has more nerve fibers and that women may feel pain more _____ than men.

16. The new management team received very positive feedback from the employees at the end of their first month, which was _____.

17. For some time now, in some British schools, there have been no compulsory topics, but students have a) _____ their own program of studies based on their tastes and career plans. Fortunately, the success rates of the students at these schools are (b) _____ high.

18. Advice, counsel and a) _____ are necessary for the new teachers to face the challenges that they will encounter during the difficult first year of teaching. Schools hold pre- and in- service b) _____ to provide support for these newcomers. Such programs equip teachers with the knowledge and skills to confidently and c) _____ assist their students.

19. Global warming has been the subject of _____ debate and concern for many scientists, policy-makers, and citizens for at least the past decade.

78 BALLOONING

1 The first means of air transportation was not the airplane. **It** was the balloon. People traveled by balloons 100 years before there were planes or jet aircraft. In those early days, ballooning was exciting, but it was also dangerous. Sometimes the balloons fell suddenly. Sometimes they burned, but these dangers did not stop the balloonists.

2 Flying a balloon is not like flying a plane. **It** is completely different because the balloon has no engine and therefore no power of its own. The wind directs the balloon. It goes where the wind blows. The pilot can control only the height of the balloon. He or she can raise and lower the balloon to find the right wind direction. This is how a good pilot controls where the balloon goes.

3 The first balloon flight took place in France in 1783. Two Frenchmen, the Montgolfier brothers, made a very large paper bag. It was a test balloon without passengers. It was filled with hot air. Hot air is lighter than cold air, so it pushed the balloon up. The Montgolfiers' hot air balloon went up 1,000 feet in the sky.

4 Later **that same year**, two other Frenchmen went up in a basket ***attached*** under a balloon. They built a fire under the balloon to make the air hot. This made the balloon stay up in the air for a few hours. But their balloon was tied to the ground, so it could not go anywhere.

5 The first ***free*** balloon flight was in December, 1783. The balloon flew for 25 minutes over Paris. It traveled about 5 ½ miles. Ballooning continued to grow in popularity, and soon other balloonists tried longer flights. A major event in the history of ballooning was the first long flight over water. On January 7, 1785, Jean Pierre Francois Blanchard and John Jeffries made the first trip over the English Channel in a hydrogen balloon. After about an hour, their balloon ***unexpectedly*** lost gas and began to go down toward the water. They threw out some equipment and food to make the balloon lighter, but it still continued to fall, so they threw out almost everything in the basket-even some of their clothes. Finally, after about three hours, they landed in France, cold but safe.

6 During the nineteenth century, ballooning was popular until the ***invention*** of the airplane. There were balloon races all over Europe. Balloons were also used by armies in wars to transport ***equipment***, and by scientists to study the meteorology. After the airplane was invented, people generally lost interest in balloons. Planes were much faster and easier to control. However, some people today still like to go up in balloons. High up in the balloon basket, they find peace and quiet. They also have a wonderful view of the world below.

A. What do the following refer to?

1. It (para. 1) : _____
2. It (para. 2) : _____
3. that same year (para. 4) : _____

B. Answer the following questions.

1. What were some of the dangers early balloonists were faced with?

_____

_____

2. How does a good pilot control the direction of the balloon?

_____

_____.

3. Why weren't there any passengers in Montgolfiers' balloon?

_____

_____.

4. What made the balloons stay up in the air?

_____

_____.

5. How long did the first free balloon flight last?

_____

_____.

6. What was the importance of the balloon flight in 1785?

_____

_____.

7. How did Blanchard and Jeffries prevent their balloon from crashing into the sea?

_____

_____.

8. Beside traveling, write down two other uses of balloons.

a) _____

b) _____.

VOCABULARY PRACTICE:

Use a dictionary to find the different forms of the following words and then use the most suitable form to complete the sentences given.

Verb	Noun	Adjective	Adverb
attach		----------	----------
		free	
			unexpectedly
	1. invention *2.*		----------
	equipment		----------

1. The Mayor announced that they had to increase the public transport fares in order to compensate for the _____ rise in fuel prices.

2. Rescuers did not have the necessary (a)_____ to carry out such a massive rescue operation, so it took them several hours to cut the survivors (b)_____ from the wreckage.

3. All the police officers were (a)_____ with shields and helmets to defend themselves against the rioters. In addition, a face shield was (b)_____ to each helmet to protect their face.

4. The parents and the community (a)_____ that their children will be educated for tomorrow's world. They want their children to develop such skills as digital-age literacy, (b)_____ thinking to improve creativity and effective communication. To fulfill their high (c)_____, schooling is changing. Today most schools are relatively well (d)_____ with technological aids to enable children to use computers in their everyday approach.

5. The first disposable blade safety razor was (a)_____ by King C. Gillette in 1903. King Gillette was assured by William Painter, who was the (b)_____ of the disposable Crown Cork bottle cap, that a successful (c)_____ was one that was purchased over and over again by satisfied customers.

6. The Stock Market received a boost yesterday after the _____ high increase in the credit note of Turkey.

7. The fall of the Ceausescu government brought newfound _____ to millions in Romania.

8. Thousands of people have left their homes and gone to the shelters in Springfield as the _____ tornado track will be south of the Springfield Metro area.

9. The business world changed tremendously after the (a) _____ of the internet, which is the newest way of exchanging information. With information flowing (b)_____ on the internet, consumers, buyers, and sellers become connected.

79 AROUND-THE-WORLD IN A BALLOON

Bertrand Piccard and Brian Jones ***received*** a heroes' welcome at Cointrin Airport, Geneva, Switzerland, as the first ***team*** to successfully complete a round-the-world journey in a balloon. Their trip took about nineteen days and twenty-one hours. They departed on March 1, 1999, from Chateau d'Oex, Switzerland, headed south into Africa and then east over the Arabian Peninsula, Asia, the Pacific Ocean, Central America and the Atlantic Ocean before crossing over Mauritania, Africa on March 20. They landed in Egypt on the 22nd. Breitling, the Swiss watchmaking company, sponsored the balloon flight.

Piccard, a 41-year-old Swiss psychiatrist, who comes from a family of adventurers, and Jones, a 51-year-old British balloon flight instructor, tried to ***accomplish*** something never done before, and they were successful.

Their big, silver balloon, the Breitling Orbiter 3, helped them ***obtain*** the one-million-dollar prize offered by the Anheuser-Busch Co. and break two other ballooning records: the longest time in the air and the furthest distance traveled – more than 26,000 miles.

Although Piccard and Jones had their share of problems, they were able to ***avoid*** the kinds of things that caused their two previous attempts and the numerous attempts by other groups to fail, such as lack of fuel, weak winds, extremes of temperature, and thunderstorms. Their cabin was actually quite spacious, measuring 5.4 meters long and 2.9 meters high. It was pressurized, so no special oxygen tanks or breathing apparatus were needed. Moreover, the Orbiter 3 crew employed a team of meteorologists to ***ensure*** that Piccard and Jones would know where the most favorable winds were to be found. The Orbiter 3 weighed about 9 tons, most of it fuel. The Orbiter itself was designed slightly differently than the other balloons which failed to travel around the globe. The shape was slightly changed to ***minimize*** the effects of both heat and cold on the helium gas. Furthermore, the helium cell was enlarged so that it was capable of holding approximately 650,000 cubic feet of helium. Finally, propane was burned this time instead of kerosene, which, although lighter, is more difficult to control.

This well-designed balloon carried Piccard and Jones to success and when they returned, by plane, to Switzerland, it was time to celebrate. The corks were popping, the champagne was flowing, trumpets were playing and the air was thick with confetti.

A. Mark the best choice.

1. Bertrand Piccard and Brian Jones _____.
   a) spent nearly twenty-one days in the balloon
   b) started their balloon journey in Switzerland
   c) ended their balloon journey in Geneva
   d) did not receive any money for the expenses
2. Which of the following statements is **FALSE** according to the information in the text?
   a) Piccard has an adventurous nature just like his relatives.
   b) Piccard and Jones became successful in their third attempt.
   c) Nobody before Piccard and Jones stayed in the air in a balloon as long as they did.
   d) Piccard and Jones did not meet any problems during their 1999 flight.
3. Which of the following is **TRUE** about The Breitling Orbiter 3?
   a) It contained a small cabin for the crew.
   b) It weighed approximately 9 tons without fuel.
   c) There were special oxygen tanks in the balloon cabin.
   d) It had a bigger helium cell than other balloons.

B. Answer the following questions.

1. Write some of the problems balloonists might encounter during a flight.

_____

_____.

2. How did the meteorologists help Piccard and Jones?

_____

_____.

3. Why was the shape of the Orbiter 3 changed?

_____

_____.

VOCABULARY PRACTICE:

A. The following words are bolded and italicized in the text. Write the definition that reflects how the word is used in the text using your dictionary.

Word	Definition
1.receive (v.)	
2. team (n.)	
3. accomplish (v.)	
4. obtain (v.)	
5. avoid (v.)	
6. ensure (v.)	
7. minimize(v.)	

B. Fill in the blanks with the words from exercise A.

When people graduate from university, they think the degree that they have (1)_____ will be enough to be successful at work. The reality may be quite different though. There are millions of graduates out there to compete with and some of these (2)_____ extra training upon graduation. What should these young people do to (3) _____ their goals and to be successful in the business world?

In fact, in the modern business world, success does not depend on the individuals only. (4)_____ work is the key word. In other words, to (5)_____ a long and successful career, a person should cooperate with the others in the group. Besides, he or she should (6)_____ making individual decisions as much as possible when it concerns serious issues. This is necessary to (7)_____ the risk of failure.

80 LAST BALLOON TO NOWHERE

1 Solomon August Andree, a serious Swede, was only 22 when he had his first experience with balloons while working at an aeronautics fair*. From then on, he ***devoted*** himself to the study of aeronautics. More experienced balloonists were greatly surprised that a man so young and inexperienced could go up into the air, in varying weather conditions, and never once showed any signs of fear. Andree's first balloon was the Svea, which the publisher of an evening newspaper in Stockholm had bought for him "to promote science." After that, ballooning became his entire life. In the Svea, he made many ***significant*** weather observations, studied the speed and movement of sound, and took some ***remarkable*** photographs from the air. His greatest accomplishments in the early 1890s were several flights across the Baltic Sea. Then, in 1895, Andree surprised everyone by announcing: "It is possible for a balloon to fly to the North Pole!" Many people disagreed by saying, "How can a balloon stay up in the air that long?" Andree had the answer to this question. "In the summertime, conditions will be ideal. Continuous daylight will keep the temperature variation within a few degrees. Therefore, the gas will remain constant. By attaching a sail to the bag, a balloonist can increase the speed so that the distance can be covered in 15 to 20 days."

2 On May 31, 1896, after more than a year of preparation, the First Andree Polar Expedition left Stockholm. Andree was in headlines all around the world as he left for Danes Island, off Spitsbergen in Norway, from where the expedition would start. Then, for six weeks, the world --and especially Sweden-- waited expectantly while the expedition stayed on Danes Island, waiting for the right weather. The right wind and weather never came, so on August 17, Andree gave up in ***frustration***. The expedition went back to Stockholm in a state of depression. The man who had been labeled a national hero because of his previous brave flights became an object of criticism. Even the most **sympathetic** newspapers wrote that his chances of ballooning to the North Pole were impossible.

3 In the spring of 1897, with new hope and financially supported by Alfred Nobel, the inventor of dynamite and the donor of the Nobel prizes, Andree decided on a second attempt. This time, he was ***determined*** to get his new balloon, the Eagle, to fly in the air at all costs. Accompanying Andree on the flight would be Knut Fraenkel, a 27-year-old civil engineer, and Nils Strindberg, a 24-year-old university professor. In June 1897, the expedition was ready to take off in the Eagle. Despite the fact that Andree was a responsible individual and paid great attention to detail, the balloon had one dangerous fault: air escaped from it. The advice of everyone, including the balloon maker himself, was that the expedition should be postponed to a later date and the bag rebuilt. "I do not have the ***courage*** to postpone the flight again," Andree replied. He was strongly supported by both Strindberg and Fraenkel, even though it had been ***demonstrated*** that the Eagle was losing a lift capacity of 45 kilos every twenty-four hours. On July 11, 1897, at 2:30 in the afternoon, the flight order was given and the three men took off. For almost an hour, the Eagle could be seen against the gray north sky, growing smaller and smaller. Then it disappeared and was never seen again. After that, nobody heard from the expedition for 33 years.

4 In August of 1930, the bodies of the three airmen were found near where the balloon had fallen in the Arctic by a little Norwegian fishing boat. Even in his dying hours, Andree had acted **meticulously**: he had covered the diary in straw and then in oilcloth as tightly as possible. Even as he died, he was holding the book tightly to his chest, inside the ***protective*** clothing he wore. Its recordings were nearly as complete as anyone could have wished. On July 14, only three days after taking off, the balloon had lost too much air and had gone down on Arctic ice. The men marched on ice, eating the fish they caught and the bears and seals they killed. However, they became weaker and sicker with each passing day. Andree's diary gives a clue to one death, that of Nils Strindberg, who was the first to go. Andree and Fraenkel lived about two weeks longer. Strindberg died of what the other two men decided was a heart attack within a few hours. The last entry in Strindberg's diary, on October 6, was "Resignation." Knut Fraenkel died in his sleeping bag, and Solomon August Andree died leaning against a rock. The Great Adventure had ended.

* aeronautics fair: an aircraft technology show or exhibition

A. Mark the following statements True (T) or False (F).

T F 1. As a young man, Andree differed from other balloonists in that although he lacked experience, he wasn't afraid of flying in a balloon in any kind of weather.

T F 2. In his first balloon, Andree only made weather observations and took pictures.

T F 3. Andree's balloon trips across the Baltic Sea were considered his biggest achievements in the 1890s.

T F 4. Despite the failure of his first expedition, Andree was not criticized in his country since he had already become a national hero.

T F 5. When it was found in 1930, Andree's diary had not been affected by severe weather conditions because it was well-protected.

T F 6. After their balloon went down on Arctic ice, Andree and his friends ate the food that they had taken with them.

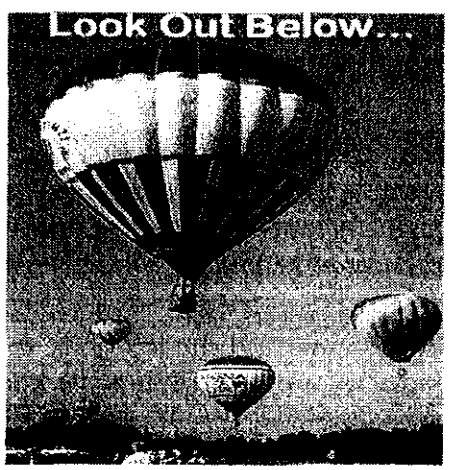
B. Mark the best choice.

1. sympathetic (para. 2) probably means _____.

   a) ordinary
   b) remarkable
   c) understanding
   d) suitable

2. meticulously (para. 4) probably means _____.

   a) roughly
   b) carefully
   c) eventually
   d) recklessly



C. Fill in each gap using the information in the text.

* When Andree first claimed that a balloon could (1)_____, people were surprised. He added that it was possible to make the balloon go faster in order to make the journey in two to three weeks, by (2)_____.

* It took Andree more than a year to get ready for the (3)_____. After waiting for suitable weather conditions on Danes Island for six weeks, Andree (4)_____ and returned to Stockholm.

* Andree was able to go on a polar expedition for the second time because Alfred Nobel (5)_____.

* Except for Andree, Fraenkel, and Strindberg, everyone believed that the Eagle should not take off until a later date because (6)_____.

* Andree and his friends took off in the Eagle on July 11, 1897. They were only able to fly for (7)_____ before the Eagle went down. (8)_____ later, a Norwegian fishing boat found their bodies on the Arctic ice.

VOCABULARY PRACTICE:

Fill in the blanks with the correct form of the bolded and italicized words in the text.

In today's world, higher education has become increasingly important. However, not everybody can actually go to a college or university. Rapid advances in information technology and easy access to the internet are reshaping educational institutions by providing (1)_____ learning opportunities and new ways to teach. Due to these advancements, there have been (2)_____ changes in education. Online education is one of these innovations that makes it possible for many people to receive higher education. Like in the case of many other innovations, there are also critics of this type of teaching. They claim that online courses diminish the personal connection between students and the teacher. The supporters of web-based learning, on the other hand, say this is not a big concern since teachers in traditional classes can (3)_____ very little time to students anyway due to time constraints or tight schedule. Another concern raised by the critics is the (4)_____ caused by technical problems stemming from viruses. They also state that many people lack the necessary computer skills and do not have the (5)_____ to learn something new after a certain age. People in favor of online education believe that if a person is (6)_____ to have higher education, these difficulties should not discourage them. As for computer crashes caused by viruses, they say there are (7)_____ anti-virus soft wares available. Although there are different views on online education, the number of students enrolling for online-courses (8) _____ that there is a great demand. In conclusion, at its worst, web-based learning is a poor substitute for the classroom experience. But at its best, the unique attributes of online courses enable learning modes that are not possible in a face-to-face model. So why not try it?

81 AIRLINERS

1 Soon after the end of the First World War, pioneers began to show that, contrary to popular opinion, long-distance flight across oceans could be made in safety. The excitement of fast air travel soon became attractive to business people and the wealthy, and civil airlines opened up in a number of countries. The first passenger aircraft were biplanes, two winged aeroplanes originally designed as wartime bombers, and often built of wood and fabric.

2 As more and more people wanted to travel by air, passenger aeroplanes were developed to meet the ***demand***. Many of these were monoplanes, single-winged aircraft with two engines, and they made regular flights between the cities of Europe and those of the United States. During the 1930s, huge four-engined flying boats became popular for long distance flights across oceans, but they could only take off and land on calm water, and were not as safe as people believed. They were also slow and expensive to manufacture. The modern airliner was born in the mid-1930s with the arrival of the all-metal low-wing monoplanes, the Boeing 247 and the Douglas DC-2. The DC-2 and later the DC-3 proved to be faster, more reliable and more economical to operate than any of its rivals. Carrying up to 32 passengers, this aircraft helped to make air travel cheaper, and by 1939, nine out of every ten airliners in use throughout the world were DC-3s.

3 Before the Second World War and for a few years after it ended, airliners were powered by piston engines and **their speed** was limited. Their days were soon numbered with the arrival of the jet engine. The first turbojet airliner, de Havilland DH 106 Comet, was put into service in 1952. It had a cruising speed of about 800 kph, much faster than any other airliner of the time. Unfortunately, **it** was soon beset with problems. In 1953 and 1954, two Comets broke up in mid-air, killing everyone on board. Eventually, weaknesses in the design of the cabin structure were found responsible for these accidents. In 1958, a redesigned ***version***, the Comet 4, was put into service and remained in use until the 1970s. Since the introduction of the Comet, the basic design and appearance of the airliners have changed very little. The Comet was followed by the Boeing 707. Other turbojets included the Douglas DC-8 and the Sud-Aviation Caravelle. Today, all long-range airliners are still designed, like the Comet, to cruise at the altitudes between 6,000 and 12,000 meters. At this height, the air is calmer. In addition, the engines and wings can operate at the highest ***efficiency***.

4 The year 1969 saw the first of the big wide-bodied jet airliners, the Boeing 747, which can carry between 320 and 500 passengers. This was one of the turning points in the history of airliners as carrying more passengers makes flying more economical. The Boeing 747 was followed by other wide-bodied airliners. Among the latest airliners is the wide-bodied Boeing 747-400, which has a fully computerized digital cockpit that can be operated by a flying crew of two. A flight engineer is no longer needed since engine performance is continually monitored by computer. It has advanced engines that ***consume*** less fuel and the aircraft can fly about 13,000 km without refueling. All these factors help to reduce the cost of long-distance air travel.

5 Smaller airliners, such as the Boeing 757, are also equipped with digital cockpits. The Airbus A320 is equipped with the latest avionics and fly-by-wire systems. Nearly all of this aircraft's functions are electronically controlled, involving over fifteen different interlinked computers. A centralized fault display system flashes up ***faults*** on a screen near the pilots. This system will soon be modified so that details of faults can be signaled to the ground. By the time the aircraft lands, ground engineers will have plans ready for repair work to begin immediately.

A. What do the following refer to?

1. their speed (para. 3) : the speed of _____
2. it (para. 3) : _____

B. Mark the following statements True (T) or False (F).

T F 1. The basic design and the appearance of today's airliners are very similar to those of the Comet.

T F 2. The planned modifications in the fault display system of the Airbus A320 will make it possible for ground engineers to plan repair work before it lands.

C. Fill in each gap using the information in paragraph 2.

The need to meet the increasing demand for fast air travel led to the (1)_____, many of which were monoplanes. These planes had a/an (2a)_____ and (2b)_____. They flew regularly between Europe and the United States. Then, in the 1930s, flying boats with four engines gained popularity for long distance flights across oceans. However, they could take off and land on calm water only. Furthermore, they were (3)_____ than people thought and they were neither (4a)_____ nor (4b)_____ to manufacture. In the mid-1930s, (5a)_____ and (5b)_____ were designed as the first modern low-wing monoplanes made of metal.

D. Answer the following questions.

1. How does the writer prove that DC-3 were very popular around the world?

   _____

   _____.

2. What caused the Comet crashes in the 1950s?

   _____

   _____.

3. Give **two** reasons why airliners are designed to fly at the heights of between 6,000 and 12,000 meters?

   a) _____

   b) _____.

4. Why was Boeing 747 regarded as one of the turning points in the history of airlines?

   _____

   _____.

E. Mark the best choice.

1. Which of the following is **NOT** an advantage of the Boeing 747-400?

   a) Its engine does not consume as much fuel as the Boeing 747.
   b) It can fly non-stop approximately 13,000 kilometers.
   c) Its digital cockpit can be operated by only one crew member.
   d) It doesn't require a flight engineer to monitor engine performance

VOCABULARY PRACTICE:

A. Match the words with the definitions. Put the letters on the lines provided.

_____ 1. demand (n.) (para. 2)	a)	a different form, type
_____ 2. version (n.) (para. 3)	b)	error
_____ 3. efficiency (n.) (para. 3)	c)	a need for something to be sold or supplied
_____ 4. consume (v.) (para. 4)	d)	to use fuel, energy or time, especially in large amounts
_____ 5. fault (n.) (para. 5)	e)	ability to do or produce something with a minimum effort, expense or waste

B. Fill in the blanks with a suitable word from exercise A.

Meetings are an important part of the business world. Traditionally, people gather in a room and have face-to-face (FTF) interaction with their customers or clients, some of whom have to travel a great distance. However, due to the travel-related costs, such as lodging, airfare, and meals, businessmen started to question the (1)_____ of FTF meetings to conduct business. Besides traditional FTF meetings (2)_____ a lot of time. As a result, a new (3) _____ of FTF meetings, teleconferencing, has come into existence. Teleconferencing is interactive group communication through an electronic medium. In general terms, it can bring people together under one roof even though they're separated by hundreds of miles. Teleconferencing was first introduced in the 1960's with American Telephone and Telegraph's Picture phone. At that time, however, there was no (4)_____ for the new technology because travel costs were reasonable and consumers were unwilling to pay the monthly service charge for using the picturephone. Nowadays, however, teleconferencing has become a common way of communication in business.

Teleconferencing has many advantages. To name a few, it reduces the cost of group meetings. Secondly, people who wouldn't normally attend a distant FTF meeting can participate. Thirdly, socializing is minimal compared to an FTF meeting; therefore, meetings are shorter and more oriented to the primary purpose of the meeting. On the other hand, there are a couple of disadvantages as well. First, it is unsatisfactory for complex interpersonal communication, such as negotiation or bargaining. Moreover, it can be very frustrating when a (5)_____ in the system causes a technical problem to occur.

82 AMELIA MARY EARHART

A WOMAN PILOT WHO MADE A DIFFERENCE

1 America's famous aviatrix Amelia Mary Earhart was born on July 24, 1897 in Kansas. Her grandfather, Alfred Otis was one of the leading citizens of Atchison. Therefore, Amelia and her sister Muriel had ***privilege*** and wealth. They attended private schools and enjoyed many of the comforts of life.

2 Amelia became interested in flying in 1920, when she went to an "aerial meet" at Daugherty Field. Given a helmet and goggles, she got in an open-cockpit biplane for a 10-minute flight over Los Angeles. **This** was the experience that made her crazy about flying. Shortly afterwards, she began lessons with pioneer aviatrix Anita "Neta" Snook and purchased a prototype of the Kinner airplane and named **it** "The Canary". She had several accidents during this period, but considering the unreliability of planes in the early days of aviation, **some** were due to unreliable engines and slowness of the planes.

3 In 1922, Amelia began ***participating*** in record breaking attempts and set a women's altitude record of 14,000 feet. One day in 1926, Amelia was called by Captain Railey, who had heard a lot about her, and was offered the chance to become the first woman to fly across the Atlantic; no woman had so far flown across the Atlantic. She was only going to be a passenger on the flight, but still she accepted the offer. After the journey, she became the subject of columns in newspapers all over the country. Aviation was quite a new ***concept*** and the industry was looking for ways of improving its image. Soon, Amelia was appointed assistant to the General Traffic Manager at Transcontinental Air Transport mainly with a responsibility for attracting women passengers.

4 In September, 1928, Amelia flew a solo flight from the Atlantic to the Pacific coast. When she returned to New York, she wrote a book about the Atlantic flight, *20 hours, 40 minutes.* Meanwhile, she met George Pulmer Putnam, the publisher of her book, and married him in 1931. George played a very important role in many of the accomplishments Amelia made. A famous organization that was made up of 99 female pilots, the "Ninety-Nines", was formed by Amelia Earhart with the help of George Putnam.

5 In 1932, Amelia thought she needed to do something striking and started planning a solo flight across the Atlantic. No other person had successfully flown solo across the Atlantic since Lindbergh. At the time, several other women pilots were making preparations for such a flight and George knew that in order to keep Amelia's name in the forefront she would need to make the trip. On May 20, 1932, exactly 5 years after the Lindbergh flight, Amelia set off. She broke several records on this flight. She was the first woman to fly the Atlantic solo and the only person to fly across it twice. She held the record for crossing it in the shortest time and it was the longest non-stop distance flown by a woman. The President sent his congratulations and said that she had shown that aviation was a science which could not be limited to men only.

6 In 1937, Amelia began to ***formulate*** plans for a round-the-world flight and on June 1, 1937 Amelia and her navigator Fred Noonan departed Miami. Unfortunately, after several days of flight, they lost radio contact. Authorities ***claimed*** that the plane went down 35-100 miles off the coast of Howland Island in the Pacific. President Roosevelt authorized a search by 9 naval ships and 66 aircraft at an estimated cost of over $4 million. The search was abandoned after three months. George continued to seek help in the search, but he too ***abandoned*** all hope of finding **them** alive. Over the years, many unconfirmed sightings have been reported and theories still abound. One of the many theories about Amelia's disappearance is that she was on a spy mission authorized by President Roosevelt and was captured by the Japanese. Another is that she dove her plane into the Pacific on purpose and still another is that she lived for years on an island in the South Pacific with a native fisherman. However, the whereabouts of her disappearance is yet to be uncovered.

A. What do the following refer to?

1. This (para. 2) : _____
2. it (para. 2) : _____
3. some (para. 2) : some of the _____
4. them (para. 6) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. very unusual (adj.) (para. 5) : _____
2. make, (v.) (para. 6) : _____
3. look for (v.) (para. 6) : _____
4. are plentiful (v.) (para. 6) : _____

C. Mark the following statements True (T) or False (F).

T F 1. In 1926, Amelia appeared in newspapers because she was the first woman who flew a plane.

T F 2. George encouraged Amelia to establish the "Ninety-Nines."

T F 3. Lindbergh flew across the Pacific 5 years before Amelia.

T F 4. When Amelia flew across the Atlantic, she broke the record for the longest non-stop distance until then.

T F 5. According to one theory about Amelia's disappearance, Amelia committed suicide.

D. Answer the following questions.

1. How did Captain Railey change Amelia's life?

_____

_____.

2. What was Amelia expected to do as assistant to the General Traffic Manager?

_____

_____.

3. How did Amelia share her flying experience in 1928 with people?

_____

_____.

4. Why did George want Amelia to make a solo flight across the Atlantic?

_____

_____.

5. According to the President, why was Amelia's success important?

_____

_____.

VOCABULARY PRACTICE:

A. Match the words with the definitions. Put the letters on the lines provided.

_____	1. privilege (n.) (para. 1)	a) take part; join
_____	2. participate (v.) (para. 3)	b) idea
_____	3. concept (n.) (para. 3)	c) stop; end
_____	4. formulate (v.) (para. 6)	d) say something is true
_____	5. claim (v.) (para. 6)	e) advantage, right
_____	6. abandon (v.) (para. 6)	f) devise; make

B. Fill in the blanks with a suitable word from exercise A.

Learner Autonomy has become a very popular (1)_____ in English Language Teaching (ELT) for the past few years. Learner Autonomy does not mean that the teacher becomes redundant. Neither does it require the teacher to (2)_____ his / her control in the language learning process. In fact, the teachers has an important role in providing the learners with the opportunity to experiment, make hypotheses, and improvise in their attempt to master the target language and, along with it, to learn how to learn. In short, the teacher has the role of a facilitator who provides students with the (3)_____ to choose their own individual way of learning. Educators believing in the importance of learner autonomy (4)_____ that learners should have the right to determine the direction of their own learning and also have the chance to identify their own learning objectives, (5)_____ their own learning strategies and monitor their own learning. To sum up, supporters of learner autonomy believe in the necessity of allowing the learners to (6)_____ more in decision-making processes.

SOCIOLOGY

83 TRADITIONS

1 What are traditions? They are beliefs, customs, music, stories, food, and dress that each generation passes to the next. They are social habits. Their origins are largely unknown but we follow **them** without thinking. They are the things that make people around the world different from each other. However, the new trend, globalization, threatens the existence of all traditions. As technology, science, and business bring different nations closer to each other, cultural differences lose their importance. Wherever you go in the world, people eat hamburgers, wear jeans, play the same computer games, and listen to similar types of music. Even languages are not immune; they are filled with many foreign words.

2 People have two **distinct** attitudes about traditions, i.e., there are two different opinions about whether traditions should be kept. Some people believe that no tradition is worth saving. They believe that every place on earth will gradually become the same, and a global culture will emerge. **Others** think differently and want to **preserve** all traditions. They prefer to keep the world with a variety of different cultures in it. They think that it is possible for many different cultures to live together peacefully. To understand and respect each other and give others the right to be different, we must be more tolerant of each other's traditions. We can get a better understanding of traditions if we classify them into three groups: religious traditions, social traditions, and superstitions.

3 Religion is the source of many of our traditions. One example of religious traditions is holidays. In fact, the English word for holiday originates from "holy days"; that is, religious days. Many of the most important holidays, such as "Ramadan Bayram" and "Christmas Eve," are religious in origin. Other traditions like circumcision and pilgrimages also come from religion. A pilgrimage is a journey to a **sacred** place like Mecca or Jerusalem, the holy lands for Moslems and Jews. Many daily practices also depend on religion. For example, Moslems cannot eat pork, whereas Hindus cannot eat beef. Jews have many rules about food, whereas Christians have **none**.

4 There are many social traditions that originated long ago. No one remembers why we wear wedding rings on the fourth finger of the left hand. Similarly, we have forgotten why knives have round ends, why we use forks instead of chopsticks as the Chinese do, why men wear trousers in the West but dresses called "thobes" in Arabia or skirts called "kilts" in Scotland. Have you ever thought about why white is a symbol of purity in the West but of death in the East? There are thousands of details in our daily lives that started for reasons that we no longer know. Even the stories that we tell our children or the dances that we do at ceremonies have forgotten origins. In other words, many social traditions have historical origins.

5 Superstitions are traditional beliefs that we share with other people in our society about luck. Sometimes we try to avoid bad luck by avoiding certain things. For example, people do not walk under ladders or cross the path of a black cat. Many people try to avoid the number "13," so many hotels in the US will not have a thirteenth floor or a room number 13! Another example is knocking on wood to avoid bad luck. Many of these superstitions seem to be universal, whereas others are more local. People of the Middle East and the Balkans believe that a blue bead on a child's clothes will keep away bad luck or the "evil eye."

A. What do the following refer to?

1. them (para. 1) : _____
2. others (para. 2) : other _____
3. none (para. 3) : no _____

B. Guess the meanings of the following words using the clues in the text.

1. distinct (para. 2) : probably means _____
2. preserve (para. 2) : probably means _____
3. sacred (para. 3) : probably means _____

C. Mark the following statements True (T) or False (F).

T F 1. People generally know where most traditions come from.

T F 2. Globalization has an effect even on languages.

T F 3. Religion plays a very small role in our daily habits.

T F 4. It is common for men to wear skirts in the Middle East.

D. Fill in each gap using the information in the text.

* It is important to (1)_____ each other's traditions as this makes it possible for cultures to live in peace.
* Apart from superstitions, there are (2)_____ and (3)_____ reasons that make up traditions.
* (4)_____ symbolizes death in the East.

E. Answer the following questions.

1. Give two examples of how globalization affects culture.

_____

_____.

2. Why do people of the Middle East and the Balkans put a blue bead on their children's clothes?

_____

_____.

84 ARRANGED MARRIAGES: AN ALTERNATIVE TO LOVE MARRIAGES

1 The system of arranged matriage in India was well established during the Vedic period and has been practiced very commonly by the vast majority of the population since **then**. Marriage is seen as a necessity in the life of a Hindu, and the unmarried person is considered incomplete and not suitable for participation in certain social and religious activities.

2 The practice of arranged marriage cuts across all caste lines, regional borders, and language barriers in India. Marriage is treated as an **alliance** between two families rather than two individuals. In the joint family arrangement, where several generations live together, the possible bride is evaluated on her suitability as part of the family environment — not only as a wife to her husband. Love is not viewed as an important element in mate selection. In fact, romantic love is regarded as an uncontrollable emotion which negatively affects the use of logic in decision making. Thus, mate selection by self-choice is seen as a danger to the entire joint family because it could lead to the selection of a spouse who is unsuitable in character or background. Gupta (1976) has estimated that Indian marriages based on love occur among less than one percent of the population. **Crucial** life decisions, such as choosing a mate, are generally determined by responsible members of the family. Therefore, they reflect the cultural emphasis on family life as opposed to freedom of the individual. However, it is thought that close ties and feelings of love will develop between the couple following marriage.

3 In urban areas of India, newspaper advertisements have become a convenient and acceptable method of finding a suitable spouse. In 1960, Cormack noted that the use of advertisements was growing in most big Indian cities. Eleven years later, Kurian observed that **it** had become an established "go between" for arranging marriages. These advertisements typically list the desirable characteristics of the young men and women. Studies by Kurian (1974) and Ross (1961) show strong sex differences in preferred qualities for males and females. In Indian culture, a male is highly valued for the social and economic status of his family, his educational level, and potential earning power. Personal qualities such as appearance and personality are not considered very important. In women, the following qualities are emphasized: moral character, beauty, ability to cook well and manage a home, and education.

4 Most research on modern family life in India suggests that there has been little change in the views of Indians toward marriage. However, Rao and Rao's survey of college students revealed a surprising fact: An increasing number of young adults in India wish to have more choice in the selection of their future wives or husbands, although they still let their parents arrange their marriages. Their findings were also quite similar to **those** of Cormack, who also stated that the custom of forbidding a **prospective** couple from seeing each other until their wedding day is becoming out of date in most urban areas and among college-educated youth. They prefer to spend some time with their prospective husbands or wives before getting married.

A. What do the following refer to?

1. then (para. 1) : _____
2. it (para. 3) : _____
3. those (para. 4) : _____

B. Mark the best choice.

1. 'alliance' (para. 2) probably means _____.

   a) preference
   b) tradition
   c) union
   d) individual

2. 'crucial' (para. 2) probably means _____.

   a) important
   b) endangering
   c) sincere
   d) unsuitable

3. 'prospective' (para. 4) probably means _____.

   a) responsible
   b) unlikely
   c) future
   d) desperate

C. Mark the following statements True (T) or False (F).

T F 1. In an Indian family, grandparents, parents, and children live together.

T F 2. The Indian practice of advertising for spouses in the newspaper is most common in rural areas.

T F 3. Indians consider education to be important for both men and women in mate selection.

T F 4. Rao and Rao's survey showed that an increasing number of college students choose their spouses themselves.

D. Answer the following questions.

1. Why is getting married so important for a Hindu?

   _____

   _____.

2. What is the most important criterion when evaluating a possible bride?

   _____

   _____.

3. What can be a negative consequence of mate selection by self-choice?

   _____

   _____.

85 DOWRY AND BRIDE PRICE

1 The economics of marriage has changed over time. In the past, families arranged marriages, and there was always some money or goods involved. The bride was expected to bring a "*dowry*", (i.e. a payment by the bride's family to the bridegroom's for marrying their daughter) of money, jewelry, animals, or something of large value to the marriage. The dowry was often used by the receiving family for business purposes, family members' education, or for the husband's sisters. Throughout history, the dowry has been used in many civilizations for different purposes. For example, in Ancient Rome, the dowry was a means of sharing the cost of starting a new family. In India, dowry was given as compensation to the groom's parents for the amount they spent in educating and upbringing their son. In China, wealthy parents gave some real estate or a couple of servant girls to the husband to guarantee their child a pleasant and comfortable life. Forms of dowry were common in Europe until the 19th century, but it declined and eventually disappeared with modernization.

2 In other cultures, the family of the groom or the groom himself had to pay a "*bride price*", or a marriage payment, to the bride's family for the right to marry their daughter. Another form was "bride wealth", which was the property given by the groom's family to the bride's family to compensate the loss of their daughter's services.

3 In some cultures, dowries and bride prices are still demanded. For example, in southern Sudan, the groom must give 20-40 cattle as a bride price. In both cases, the financial transaction takes place between the groom, or his family and the bride's family; the bride has no part in this transaction and often no choice in the marriage decision. It is the bride's family who has the final word.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. way or method (para. 1) (n.) : _____
2. became less common (para. 1) (v.) : _____
3. requested very strongly (para. 3) (v.) : _____
4. exchange (para. 3) (n.) : _____

B. Mark the following statements True (T) or False (F).

T F 1. The economics of marriage has been used for the same purpose in all civilizations.

T F 2. Bride price isn't always an amount of money.

T F 3. The final decision is made by the bride's family.

C. Fill in each gap with only ONE word using the information in the text.

1. The family who received the dowry generally used it for _____ or _____.
2. Bride price is paid to the bride's family for the _____ to marry their daughter.
3. The bride's family was given _____ to use as their daughter couldn't help them after she got married.

D. Answer the following questions.

1. What is the difference between a dowry and a bride price?

_____

_____.

2. What did the rich parents do to support their newly married children in China?

_____

_____.

86 GENDER: WHAT MAKES *US* DIFFERENT FROM *THEM*?

1 A few hours after Joy Fisher's birth, her parents took pictures of her. Joy's mother put a pink hair band around Joy's head, so that everyone who saw the pictures would know that the new baby was a girl. Even before she was born, Joy's parents knew that the baby was going to be female because they had had a sonogram. Joy's parents decorated her room in pink and white and told all their relatives and friends that their baby was a girl. Gifts soon arrived, including pink dresses and dolls. A few years later, Joy's brother, Tommy, was born. His room was painted blue, and he received toy cars and a football as gifts.

2 Both Joy and Tommy are growing up in a certain culture. They are learning what it means to be a girl and a boy in that culture. Their sex at birth, female and male, is now becoming a gender—a way of thinking, speaking, and acting that is considered feminine or masculine. Each culture has its own way of defining gender, and very early in life gender becomes a basic part of a person's identity.

3 According to Deborah Tannen, a professor at Georgetown University, gender differences begin early in life. For example, in the United States, boys and girls usually play in same-sex groups. Boys like to play with a large group of boys, and they compete with one another for leadership. Some are leaders; others are followers. Girls, in contrast, usually play in smaller groups. Sometimes they play with only one or two "best friends." It's important for most girls that other girls like them, and **this** is more important to them than winning.

4 Tannen has found that these differences are also reflected in the ways that children use language while they play. Boys often use commands when they talk to each other. For instance, when Tommy is the leader of the group, he might say, "You go first. Don't wait for me." As the leader, he tells them exactly what to do. But when Joy wants to influence her friends, she uses different forms of language. Instead of using commands, she will say, "Let's try it this way. Let's do this." This is how she tries to direct the other girls without sounding like a boss.

5 As Joy and Tommy grow up, they will continue to be different. At school, Joy's status will depend on her circle of friends. If her friends are popular, then Joy may enjoy high status as well. Tommy's status, on the other hand, does not depend on who his friends are at school. Tommy gains status through his own ability to play sports well or earn high grades.

6 Different ways of speaking are another part of gender. As adults, men and women sometimes face difficulties in their communication with each other. Studies of communication show that if a woman tells her husband about a problem, she will expect him to be understanding. She may be annoyed when he simply tells her how to solve the problem. Similarly, a husband may be annoyed when his wife wants to stop and ask a stranger for directions to a park or restaurant. Unlike his wife, he would rather use a map and find his way by himself.

7 Language is also part of the different ways that men and women think about friendship. Most American men believe that friendship means doing things together, such as camping or playing tennis. American women, on the other hand, usually identify their best friend as someone with whom they talk frequently. Tannen believes that for women, talking with friends and agreeing with them is very important. Tannen has found that women, in contrast to men, often use tag questions. For example, a woman might say, "This is a great restaurant, isn't it?" By adding a tag question to her speech ("isn't it?"), she is giving other people a chance to agree with her. Unlike most women, men often speak more directly, giving direct commands such as "Close the door." Many women, however, use more polite forms such as "Could you please close the door?"

8 These differences seem to be part of growing up in a certain culture and following its rules of gender. If men and women can understand that many of their differences are cultural, not personal, they may be able to improve their relationships. They may begin to understand that because of gender differences in language, there is more than one way to communicate.

A. What does the following refer to?

1. this (para. 3) : the fact that _____

B. Mark the following statements M (Male) or F (Female) according to the related gender.

_____ 1. They enjoy telling people what to do.

_____ 2. Their status at school doesn't depend on their own ability.

_____ 3. They don't expect solutions when they talk about their problems.

_____ 4. They would prefer to ask someone for directions rather than use a map.

_____ 5. For them, spending time together with friends is more important than talking with them.

C. Fill in each gap with ONE word using the information in the text.

	BOYS	GIRLS
IN GAMES	* There is a competition among them to be the (1)_____ of the group. * They use (3)_____ while talking to each other.	* The size of their play groups isn't as (2)_____ as boys'. * When they want to (4)_____ their friends, instead of doing this explicitly, they use different forms of language such as "Let's.."

D. Answer the following questions.

1. Why do women use question tags?

_____

_____.

2. How can men and women improve their relationships?

_____

_____.

87 Is America Closing The 'Golden Door'?

1 America has always been a land of immigrants. With the exception of the native American Indian, there is no United States citizen who is not an immigrant or a descendant of an immigrant. Immigration into this continent started in the 1600s and continued nonstop and unrestricted until the late 1800s. To people in Europe and other parts of the world, where governments were often tyrannical, economies unpredictable, and food frequently insufficient, this 'new world' offered promise and hope, and thus, millions of them went there. Since the United States was a new nation with a massive frontier and very few people to shape it, immigration was encouraged. Vast amounts of land were available, and opportunities were limitless in the country. By 1882, however, the massive frontiers and open spaces were quickly filling up. A country that had once had room for all was full, or so its citizens thought. Passing restrictive immigration laws was their way of closing the 'golden door' on the constant stream of immigrants. With the passage of time, these laws became increasingly stricter, and by 1921, the first US immigration quota system had been brought in to allow only a pre-set number of immigrants to enter the country yearly.

2 Since the 1960s, the US Immigration and Naturalization Service (INS) has been quite successful in controlling the number of 'legal' immigrants entering the country each year. However, a rather predictable problem has resulted from the strict quota system: people's desires and needs to emigrate do not decrease just because a quota is imposed. Since the decision to emigrate is not an easy one to make, once it is made, people are often **persistent** in their efforts to reach their destination. If they cannot reach it legally, then they often reach it illegally.

3 Illegal aliens have been a problem ever since the first immigration restriction was imposed, but the problem has never been as serious as it is now. Estimates of the illegal population range from two million to ten million, and this population is growing. The pressure this huge population of illegals places on the national economy is shocking. The hardest effect of this pressure on the US workforce has been on low-skilled American workers. Illegals often compete for jobs by offering to do the same work for far less pay and fewer benefits than American citizens. The economy is further worsened by illegal immigrants' use of false identification papers. Illegals are using false IDs at an alarming rate to benefit from services paid for by American taxpayers: Medicare, unemployment compensation, Social Security, etc. Such activities cost American taxpayers millions of dollars a year. In short, illegals are adding extreme pressure to an already over-burdened economy.

4 Economic problems caused by illegals are only the beginning of the problems. Ironically, the people who have suffered most are the legal immigrants. As the economy gets worse, and unemployment rates rise, it is usually legal immigrants who cannot find employment. Moreover, it is often legal immigrants who are most seriously ridiculed because of the misconduct of illegals. America is quickly becoming an unpleasant place for immigrants to live. According to one congressman, "If necessary precautions are not taken, America may have to shut its doors altogether."

5 Solutions to such complex problems are not easy to find, and none are totally satisfactory. Some argue that the best place to attack the problem is at the borders. More intense controls at borders would certainly limit, to some extent, the **influx** of illegals. More sophisticated night cameras and newer and greater numbers of vehicles would help, but only partially. The United States shares such extensive borders with Canada and Mexico that it is virtually impossible to maintain control over them all.

A. Mark the best choice.

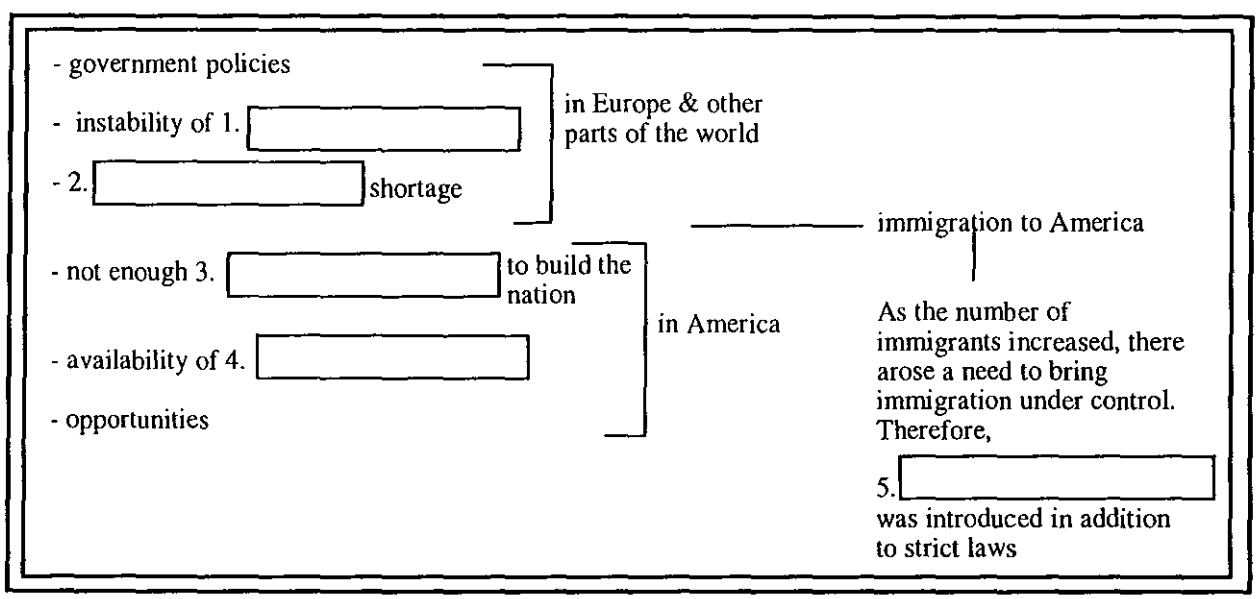
1. In paragraph 2, '**persistent**' probably means _____.

   a) determined b) conservative c) doubtful d) prejudiced

2. In paragraph 5, '**influx**' probably means _____.

   a) control b) origin c) arrival d) growth

B. Complete the missing information according to the text. You can use more than one word.



C. Answer the following questions.

1. What is the main drawback of the quota system?

   _____

   _____.

2. Write two effects of the large population of illegals on legal immigrants in the United States.

   a) _____

   b) _____.

3. Why is it difficult to control immigration to the United States through the borders?

   _____

   _____.

D. Fill in each gap using the information in the text.

A huge population of illegal immigrants in the US stimulates competition between illegal immigrants and American citizens, and it is the illegal immigrants that win this competition. They have a higher chance of getting jobs because they agree to get (1a)_____ and (1b)_____ than the legal immigrants. Once they become workers in the country, illegal immigrants try to benefit from social services by using (2)_____. This attempt results in huge expenses that (3)_____ have to pay and, therefore, worsens (4)_____.

EDUCATION

88 A DIFFERENT WINDOW

1 One of the most remarkable features of the theory of multiple intelligences is how it provides eight different potential pathways to learning. If a teacher is having difficulty reaching a student in the more traditional linguistic or logical ways of instruction, the theory of multiple intelligences suggests several other ways in which the material might be presented to facilitate effective learning. Whether you are a kindergarten teacher, a graduate school instructor, or an adult learner looking for better ways of finding self-study on any subject of interest, the same basic guidelines apply. Whatever you are teaching or learning, see how you might connect it with words (linguistic intelligence), logic or numbers (logical-mathematical intelligence), pictures (spatial intelligence), music (musical intelligence), self-reflection (intrapersonal intelligence), a physical experience (bodily-kinesthetic intelligence), a social experience (interpersonal intelligence), and/or an experience in the natural world (naturalist intelligence).

2 If you're teaching or learning about the law of supply and demand in economics, you might read about it (linguistic), study mathematical formulas that express **it** (logical-mathematical), examine a graphic chart that describes the principle (spatial), observe the law in the natural world (naturalist) or in the human world of commerce (interpersonal), or examine the law in terms of your own body (bodily-kinesthetic). For example, when you supply your body with lots of food, the hunger demand goes down; when there's very little supply, your stomach's demand for food goes up and you get hungry (bodily-kinesthetic and intrapersonal); and/or write a song or find an existing song that demonstrates the law such as Dylan's "Too Much of Nothing" (musical).

3 You don't have to teach or learn something in all eight ways, just see what the possibilities are, and then decide which particular pathways interest you the most, or seem to be the most effective teaching or learning tools. The theory of multiple intelligences is **intriguing** because not only is it fascinating but it also expands our horizon of available teaching/learning tools beyond the conventional linguistic and logical methods such as lectures, textbooks, writing assignments, and formulas that are used in most schools. To get started, put the topic of whatever you're interested in teaching or learning about in the center of a blank sheet of paper, and draw eight straight lines or "spokes" radiating out from this topic. Label each line with a different intelligence. Then, start brainstorming ideas for teaching or learning that topic and write down ideas next to each intelligence This is a spatial-linguistic approach of brainstorming; you might want to **do this** in other ways as well. For example, use a tape-recorder, or have a group brainstorming session...Have fun!

Mark the best choice.

1. A teacher should try the theory of multiple intelligence when _____.

   a) the material is not interesting
   b) there is a weak connection between the subject and the student
   c) traditional linguistic or logical ways fail
   d) facilities fail to meet the needs of his students

2. Using crossword puzzles while teaching vocabulary is making use of _____.

   a) linguistic intelligence
   b) intrapersonal intelligence
   c) naturalist intelligence
   d) interpersonal intelligence

3. **it** (para. 2) refers to _____.

   a) a linguistic study
   b) principle in economics
   c) a graphic chart for the principle
   d) the law of supply and demand

4. Which of the following best describes a person who uses spacial intelligence?

   a) being good at fixing broken things without help.
   b) being able to see visual images in his head.
   c) being able to remember complex melodies.
   d) being good at team sports such as football.

5. **intriguing** (para. 3) probably means _____.

   a) interesting
   b) reliable
   c) restrictive
   d) indicative

6. **do this** (para. 3) refers to _____.

   a) expand your horizon
   b) teach or learn a topic
   c) brainstorm ideas
   d) write down ideas

89 COOPERATIVE KIDS

The concept of cooperative learning is ***alien*** *to all of us who were taught the traditional way, but it offers our children the adventure of finding their own answers.*

Di Lilford reports.

1 If you took a doctor from the 19th century and put him in a modern operating theater, he would have no idea what to do, but if you put a teacher from the 19th century into a modern classroom, he would be able to carry on teaching without **pausing**. Teaching methods have not changed much in one hundred years. The idea that students are empty containers which the teacher fills with knowledge remains the same.

2 Education consultant *Alyce Miller* says: "Cooperative learning does not work in today's changing world. We are not teaching creative problem-solving. We only encourage competition and believe that **this** brings out the best in people." However, this is not the case. Encouraging children to concentrate on getting the best marks destroys motivation and the fun of learning. She goes on to say that the teacher's role is no longer to **feed** students with information. "The facts are available in libraries, on CDs and on the Internet. Students need the skills to find this information, to use it and to think creatively in order to solve the problems of our world."

3 In cooperative learning classes, the traditional classroom physical **layout** is abandoned. Children do not sit in straight rows of desks facing the teacher, but they face one another to make it easier to share ideas. Students learn to work first in pairs, then in threes, and finally in groups of four. Students are required to participate actively in discussing and shaping their own knowledge. The teacher, who is still very important to the process, becomes the helper instead of the master.

4 *Aarnout Brombacher*, head of the mathematics department at Westerford High School, says: "The incorrect **assumption** that many people make about cooperative learning is that it is just group work. In fact, it is much, much more. Cooperative learning recognizes that students do not have the skills to work together. With **this technique**, most of the time in the classroom is spent teaching them these skills — life skills."

5 *Brett Melville*, a 17-year-old student at the school, says that students benefit from cooperative learning. He adds, "You learn the same material as you would using the traditional method, but this way you learn how to work with others at the same time. In our class, we are given enough time to discuss issues and problems in detail." He also mentions that it might take longer than simply listening to the teacher lecture, but the students remember much more afterwards.

6 One teacher, *Lynne Gedye*, has been using cooperative learning in her classes for two years. She says, "This year, we have several students in the class who cannot speak a word of English. I was feeling anxious, but there was nothing to worry about. The students' **response** was amazing. The strong students helped the weak ones endlessly so that they could participate in class activities too."

7 In short, it seems that cooperative learning turns the classroom from a competitive arena into a place where learning facts and life skills is both more fun and more effective for students and teachers alike.

A. What do the following refer to?

1. this (para. 2) : _____
2. this technique (para. 4) : _____

B. Match the words in the left column with the meanings in the right column. There are more meanings than you need.

____	1.	alien	a.	supply
____	2.	pausing	b.	restoring
____	3.	feed	c.	the way a room or a house is arranged
____	4.	layout	d.	not familiar
____	5.	assumption	e.	idea
____	6.	response	f.	stopping or waiting
			g.	reaction
			h.	determination

C. Fill in each gap using the information in the text.

* According to Alyce Miller, cooperative learning cannot operate effectively in today's world as (1)_____ is not taught in schools.
* As a result of paying too much attention to getting good marks, students lose both their (2)_____ and the (3) _____.
* In cooperative learning classes, students sit opposite one another in order to (4)_____ with each other more easily .
* The role of the teacher in cooperative learning is that of a (5)_____.
* According to Brett Melville, the advantage of participating in class discussions is that students (6) _____ later.

D. Answer the following questions.

1. Why hasn't there been a change in the teaching method over the last hundred years?

_____

_____.

2. In what way was cooperative learning helpful in Lynne Gedye's class?

_____

_____.

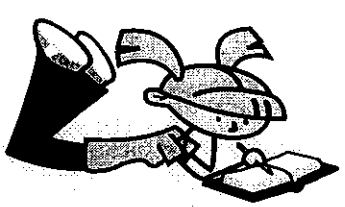
90 THE TREND TOWARDS HOME SCHOOLING

1 Record numbers of children are being taken out of school and educated by their parents at home in Britain. Up to 100 children a month are leaving the classroom because of their parents' dissatisfaction with the education system. Around 15,000 families are now teaching their youngsters at home, a rise of 50 percent from last year, according to the latest figures.

2 The popularity of home schooling is mainly due to the rigidity of the examination system, parents being unable to get their children into the school of their choice, and disillusionment with the teaching methods. Some parents also prefer to keep their children at home because of bullying and a lack of discipline in schools. Academics believe that schools could become obsolete within 20 years as parents turn to media technology, such as the Internet, to educate their children. Professor Meighan of Nottingham University says that as well as the schools, the teachers could also become obsolete in 20 years' time because children will be taught at home using the Internet, computers and video. He adds that teachers will take on a new role as advisors who sort through the available information. Regarding these possible changes in the education system, Sir Christopher Ball, the director of learning at the Royal Society of Arts brings up the issue of institutionalized schooling. He predicts that the education system of the future will include a global curriculum and a worldwide qualifications system.

3 6 years ago, Ms. Leslie Barson founded the *Otherwise Club*, which now comprises of 35 families around north London. Professional teachers are brought in where necessary to help the children with more specialized subjects, but for the most part parents and children work together. According to Ms. Barson the whole idea of educating children should be to develop their self-confidence. Her son, Luis, who is now teaching himself math, agrees with his mother and says: "I like the freedom to learn things that interest me, particularly music. I don't feel I am missing out on anything by not being at school because I am a member of various clubs and have friends who attend normal school."

4 Some educationalists, however, disagree with Luis and claim that home schooling could worsen children's relationships with others because of long periods spent with their parents. Most academics who are of this opinion fear that children could also become shy as they have limited contact with people other than their parents. Professor Michael Barber of London University has worked out a compromise to eliminate the possible negative aspects of home schooling. He thinks that children could spend half their time at home and half at school because they need to learn the rules of work in a democratic society and learn to deal with relationships with adults other than their parents, and this is only possible through experience in school.



A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. the feeling of being not satisfied with something (para. 2) (n.) : _____
2. out of use, not used any longer (para. 2) (adj.) : _____
3. an agreement between two different or opposite things (para. 4) (n.) : _____

B. Answer the following questions.

1. Apart from educational reasons why do parents prefer home schooling?

   _____

   _____.

2. According to some educationalists, how could home schooling affect social relations of children? Why?

   _____

   _____.

3. How could home schooled children benefit from spending half their time at school?

   a) _____

   b) _____.

C. Mark the following statements True (T) or False (F).

T F 1. There are fewer families now teaching their children at home than in the past.

T F 2. According to academics, the changes in the education system will change the role of the teachers in the future.

T F 3. It can be inferred from the text that at present, the institutionalized schooling system doesn't have a global curriculum.

T F 4. The *Otherwise Club* is so self-sufficient that they never need professional help from outside.

T F 5. Ms. Leslie Barson's son, Luis, regrets that he doesn't go to normal school like his friends.

91 EXPANDING EDUCATIONAL OPPORTUNITY

1 In the United States, education for young children is both free and compulsory. That is, the government must provide education for children without charging them money, and the children are required to attend school. This is always true for children in primary, or elementary school and for children in junior high school, or middle school. In high school, which is sometimes referred to as secondary school, education is free, but many states allow young people to stop attending school when they are sixteen years old.

2 80% of young people in the U.S. complete high school and get their high school diplomas. Many communities offer special programs in which those who have not completed high school can still get a high school diploma. These programs, called GED (General Equivalency Degree) programs, offer classes in the evenings. In the last few years, about half a million people a year have earned GEDs.

3 It is at the postsecondary level, after high school, that U.S. education offers the greatest variety and opportunities for almost anyone who wants to get more education. Modern society has become more complex, and so more trained people are needed to build and maintain that society. As a result, a new kind of school has developed in the last twenty or thirty years. That kind of school is the two-year college, often called a junior or community college. It provides postsecondary educational opportunities for people who have not been able to take advantage of **them** before. There are now more than 1,500 junior and community colleges in the United States, and about 5 million students are taking credit courses and programs in **these places**. This number accounts for about 40% of postsecondary students.

4 Two-year colleges offer several advantages over more traditional four-year schools. **One** is location. Most two-year colleges are located in larger towns and cities and are designed to serve the people who live in that area. Being close to the school saves money. These schools also cost less than four-year schools. Generally, tuition is about two to four times cheaper than it is at larger schools.

5 Another advantage of two-year colleges is that the classes are usually smaller and the faculty is more interested in seeing its students succeed than may be true at four-year schools. These facts, combined with the fact that the total enrollment is usually smaller, mean that the two-year college is often a more comfortable environment for study than a large university with big classes and professors busy with research.

6 The two-year college also offers greater access and opportunity. Many of these schools admit anyone who has a high school diploma or a GED. Easier entrance, however, does not mean that the education students receive is of poor quality. Two-year colleges offer Associate Degrees, and most of their courses are accepted for transfer into four-year schools. Many students transfer even before they receive their Associate Degrees. Many four-year schools welcome students who have earned good grades at two-year schools; in this way, they provide opportunities to students who might not otherwise be able to get bachelors' and even graduate degrees

7 Finally, many two-year colleges offer fields of study that are not found at more traditional universities. Many colleges also have arrangements with businesses and industries in their area to provide training and even employment for their students.

8 One of the basic social beliefs in the United States is that as many of the country's people as possible should have opportunities to achieve their goals. The college system is one way that opportunity is made available to those who might not be able to take advantage of more traditional postsecondary education.

A. What do the following refer to?

1. them (para. 3) : _____
2. these places (para. 3) : _____
3. One (para. 4) : One _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. the cost of taking classes (para. 4) (n.) : _____
2. the number of students attending a school (para. 5) (n.) : _____

C. Mark the best choice.

1. Which of the following statements is **FALSE** according to the text?

   a) Students in the US have lots of choices if they want to receive higher education.
   b) It is possible to get a high school diploma by attending GED programs.
   c) Two-year colleges aim to educate mostly the local students.
   d) A two-year college student cannot transfer to a four-year school before getting an Associate Degree.

2. According to the text, traditional four-year schools are different from two-year colleges in that they _____ .

   a) are more economical
   b) have smaller classes
   c) have busier teaching stuff
   d) provide jobs for their students

D. Answer the following question.

1. What was the main reason why Americans started the two-year college?

   _____

   _____.

92 EXAM FITNESS

1 Research has shown that success in exams depends on both physical and intellectual fitness. There is nothing that can replace studying, but keeping yourself in good physical shape will help you to remember and use what you have learned well. The following advice will help you to do your best at exam time.

Exercise

2 Many people believe that there are two kinds of students: the healthy, popular type, with muscles and a low IQ (intelligence quotient), and the weak, unhealthy academics, who wear thick glasses and pass all their exams. These people think that intellectual students are passive, and athletic people are not intellectual. That is, students are either intellectual or physical—they can't be both at the same time. However, this belief is not in fact true. Recent studies have found that students who take regular exercise generally do better at school than **those who don't**. For example, twenty minutes of aerobic exercise will immediately result in:

* **improved** performance in IQ tests
* a **reduction** in stress
* better concentration
* faster, clearer, more creative thinking
* an improvement in your memory.

3 So try to do some aerobic exercise at least three times a week. But remember, as exercise makes you feel more energetic, it is better not to do it near bedtime because it could cause **insomnia**. And on the exam day, take some physical exercise before your exam starts, preferably outdoors.

Body Clocks and Sleep

4 Our bodies and minds are programmed to run to a particular timetable and our mental and physical abilities change a lot during a day. For example, concentration, memory and the ability to work with our hands, all reach a **peak** in the afternoon, but fall to a low level in the middle of the night. Our body clocks are set and kept in synchronicity by daylight, which also keeps us alert. Confusing your body clock will make you less alert and less effective. Lack of sleep will not stop a doctor from operating successfully or a pilot from landing a jet, but it will affect a student's ability to read a book and remember things well.

Some points to remember:

* If you can't get up in the mornings and if you ask someone to wake you up, you are not getting enough sleep.
* You should sleep at regular times in order not to stop your body clock from working normally.
* You must get enough daylight. Study in a well-lit room, preferably near a window.
* The best times to study are between 9.00 a.m. and 12.00 noon, and the late afternoon between 4.00 p.m. and 6.00 p.m.
* The worst times are after lunch because your body clock slows down between 1.00 p.m. and 3.00 p.m., and also late at night. You may think you are more creative after 11.00 p.m., but remember that most exams take place during the day. Studying late at night will disrupt your body clock. In other words, your body clock won't be able to work properly.
* A nap (short sleep) during the afternoon will help you study and could result in improved performance—just make sure you don't fall asleep during your exam.

Final Points

* Don't study more than four or five hours a day after school or other work.
* Don't study with the TV or radio on. It negatively affects your ability to understand what you're trying to learn. The same is true for music that you are listening to while studying. You can't pay enough attention to what you are studying unless you choose music that is pleasant and relaxing.
* Study with a friend. It helps you feel less stressed because it helps you feel you aren't suffering alone. You see that there are other people who are having the same difficulties and problems as you.

A. Match the words in the left column with the meanings in the right column. There are more meanings than you need.

	A	B
_____	1. improved	a) make something work
_____	2. reduction	b) stay the same
_____	3. insomnia	c) the highest point
_____	4. peak	d) inability to sleep
		e) decrease
		f) the lowest level
		g) better

B. Mark the following statements True (T) or False (F).

T F 1. Students' physical fitness affects their success at school.

T F 2. There are scientific findings which show that there are two basic types of students.

T F 3. Aerobic exercise has no effect on one's thinking.

T F 4. Our physical and mental abilities vary according to the time of the day.

T F 5. A pilot will find it difficult to land a plane if he hasn't had enough sleep.

T F 6. The writer advises the readers not to sleep during daytime.

C. Mark the following statements (F) Fact or (O) Opinion according to the text.

1. _____ Unhealthy academics wear thick glasses.
2. _____ Most exams take place during the day.

D. Mark the best choice.

1. "those who don't" (para. 2) refers to students who don't _____.

   a) take regular exercise
   b) do well at school
   c) study regularly
   d) go to better schools

2. According to the text, _____.

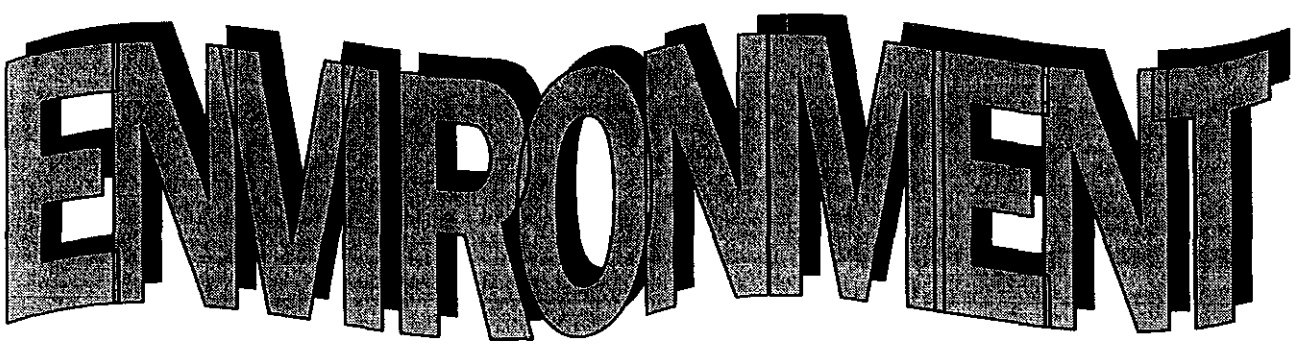
   a) students can perform well in the afternoon till 3.00 p.m
   b) studying late at night is not a good idea
   c) studying after lunch slows down the body clock
   d) students learn better between 9.00 a.m. and 4.00 p.m.

3. Studying with a friend will probably _____.

   a) help you to understand the subject better
   b) be difficult at first
   c) cause you to suffer more
   d) help you to feel better

4. In the article, the writer _____.

   a) gives students advice about how to prepare mentally for examinations
   b) helps students to prepare mentally and physically for examinations
   c) says that students should avoid physical exercise on the exam day
   d) says that sleep is the most important factor that affects students' success at exam time


ENVIRONMENT

93 A TERRIBLE CONFLICT

1 When two of **his closest friends** were killed in a power struggle between Zapatista rebels and another indigenous group a few years ago, Domingo Perez Gomez decided that the peaceful village of Salinas-Cruz, where he had farmed for a decade, was no longer safe. He picked up his family and fled his village to live in the 320,000-hectare Montes Azules Reserve, the richest patch of virgin forest in Mexico. "It was the only place we could go," says the 48-year-old. "We had lost everything we had. All we wanted to do was work." As soon as they got there, they began to cultivate corn and black beans on a small piece of land in the forest.

2 Montes Azules contains 31 percent of Mexico's bird species and 28 percent of the mammal species—including an endangered jaguar. That meant Gomez and his family were a threat for the wild life. In December 2002, government inspectors showed up and accused them of illegally cutting down trees, threatening to arrest **them** if they didn't leave the reserve.

3 When the government kicks out illegal forest dwellers, as it **did** three times in 2000, these people often return. Green activists from Conservacion Internacional have tried to develop alternative ways to make a living for these people, including producing organic coffee for export. However, these farmers seem to resist this kind of change as they are not very familiar with these new ways. "We shouldn't cut the forest down, I agree," says Rosario Lopez, 24, a forest dweller. "But if we don't have any work, how are we going to survive?"

4 Environmentalists say the reserve is sinking fast. In the last 14 years, logging and intensive farming have stripped away 41 percent of the forest. Destruction of Montes Azules would be a disaster. Ecologists say the damage being done to the forest may be irretrievable.

5 Regardless of who is to blame, when the time comes it is usually the farmers who have to relocate. "It is a terrible conflict," says environmentalist Homer Arejis. "Determining what to do with these families inside the jungle has become a huge social problem." Gomez and his family now live in the dusty yard of a shelter, raising chickens. He is looking for work.

A. What do the following refer to?

1. his closest friends (para. 1) : the closest friends of _____
2. them (para. 2) : _____
3. did (para. 3) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. native (para. 1)(adj.) : _____
2. left a place quickly due to a possible danger (para. 1) (v.) : _____
3. not recoverable (para. 4) (adj.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. Domingo and his family had to move from their village as the land was not fertile.

T F 2. Montes Azules is a home to 31 bird species.

T F 3. Homer Arejis is concerned about both the protection of Montes Azules and the relocation of the farmers.

D. Answer the following questions.

1. What is the dilemma that Rosario Lopez faces?

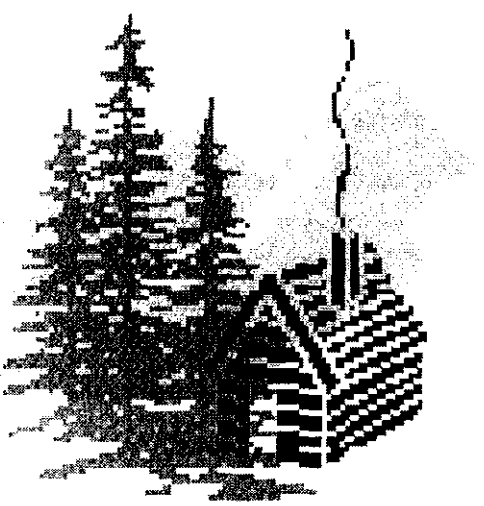
_____

_____.

2. Why are the illegal forest dwellers **NOT** interested in the alternative ways developed by the Green activists?

_____

_____.



94 How The Greenhouse Effect Works

1 Many experts agree that the most **pressing** problem facing all of us today is the global warming of the earth's atmosphere. **It** is caused mainly by the build up of carbon dioxide and CFCs. The information we have now is that the atmosphere is getting warmer. In the past 80 years, the average temperature has increased by half of one degree Celsius. Weather experts think that the rate of increase in the warming process is **accelerating**. Some predict that, by 2090, the temperature in southern Britain on a typical summer's day could be 26-30°C. (In 1998, the highest temperature recorded was 24°C.) This might be wonderful news for the British, who continually complain about the bad weather, but there would be a price to pay. Even a small rise in temperature could, scientists say, have a dramatic effect on ice in the polar regions. **Pieces** would break off, float away and melt. Sea levels would rise and Britain's low-lying coastal regions would be flooded if sea defenses were not built. However, the effect of higher temperatures on other countries could be even more severe. Hot countries which are already suffering from droughts could get even hotter and more **arid**.

2 What have we done to produce this warmer climate? We've burnt fossil fuels (coal, gas and oil), cut down trees faster than they're **replaced,** used aerosol sprays and bought food packages in rigid- foam containers. We've also used refrigerators and freezers with CFC coolants. Burning fossil fuels uses oxygen and produces carbon dioxide whereas growing trees use carbon dioxide and produce oxygen. This creates a healthy balance on the earth. However, since the industrial revolution—about 150 years ago—that balance has been **upset** because more fossil fuels have been burnt and forests cut down at an unprecedented rate. **Both** produce carbon dioxide. The result is that carbon dioxide in the atmosphere has increased 24% over the past 150 years. Some carbon dioxide is essential to life to help plants grow and to retain some heat but **the very large amounts** are responsible for trapping even more heat in the earth's atmosphere, which is called the greenhouse effect. Other important 'greenhouse gases' are CFCs especially the types which have been used in aerosols, some food trays, domestic freezers and refrigerators, supermarket refrigeration systems and most air conditioning systems. Some CFCs are at least 10,000 times more powerful than carbon dioxide in trapping heat in the earth's atmosphere.

A. Match the words in the left column with the meanings in the right column. There are more meanings than you need.

1. ___ pressing	a) took the place of
2. ___ accelerating	b) balanced
3. ___ arid	c) urgent, important
4. ___ replaced	d) getting faster
5. ___ upset	e) disturbed
	f) period of hot weather
	g) dry

B. What do the following refer to?

1. It (para. 1) : _____
2. Pieces (para. 1) : Pieces of _____
3. Both (para. 2) : _____
4. the very large amounts (para. 2) : very large amounts of _____

C. Mark the following statements True (T) or False (F).

T F 1. Building sea defenses can protect the coastal areas in England from floods.

T F 2. As a result of the greenhouse effect, CO_2 and CFC_s increase in the atmosphere.

T F 3. Supermarket refrigeration systems contribute to the greenhouse effect.

95 THE JAPANESE WAY OF DEALING WITH TRASH

1 The Japanese are better than the Americans when it comes to generating and getting rid of trash. Each person in Japan produces 1.9 pounds a day, compared with 3.5 pounds in the United States. Since the tiny country has even less land-fill space to dump rubbish than the United States, necessity has led to a sophisticated system for handling trash. The key difference is that while the Americans believe there is a single solution to the garbage crisis, the Japanese realize that burning, burying, recycling and reducing each has its place.

2 For the Japanese, the solution of choice is recycling. In Tokyo, enterprising firms have traditionally toured neighborhoods, collecting newspapers, magazines and rags (worn or worthless pieces of cloth) in exchange for new bathroom and facial tissue. Button-shaped batteries, containing toxic mercury, are returned to stores to be recycled. Although only a few years ago no Japanese would touch used goods, the latest tendency is garage sales and flea markets, which give secondhand goods new life. About 40 percent of solid waste is recycled. This includes half the paper, about 55 percent of glass bottles and 66 percent of food and beverage cans. Some towns go further. Residents of Zentsuji separate trash into 32 categories, from paper and glass to rags and appliances.

3 Since the early 1970s, officials have strictly enforced compulsory separation of burnable from noncombustible trash. Burnable waste, 72 percent of the total trash, is trucked to incinerators (furnaces for burning waste), which reduce it in weight and volume by at least 80 percent. Every Japanese community has its own incinerator or access to one nearby (there are 1,899 garbage - burning plants, compared with the 155 large incinerators in the United States).

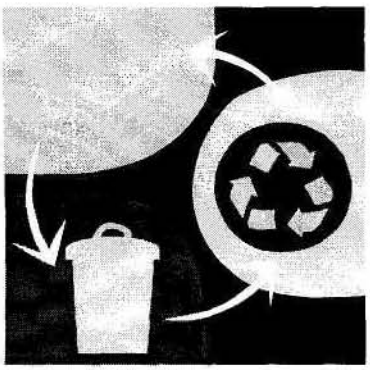
4 Yet, Japan has not solved the problem of garbage efficiently. The overall recycling rate peaked at about 50 percent in the 1970s, but dropped during the 1980s. The country still makes too much of the stuff. Gleaming appliances and used furniture are thrown away, and it's impossible to buy even a pencil without the salesclerk wrapping it. Partly as a result, Tokyo and three neighboring towns will have an excess of 3.43 million tons of garbage by 2010, and may have to ship it elsewhere. To avoid this, the government will probably promote greater recycling and changes in consumption patterns and reduce the amount of trash that its citizens generate. Garbage is one Japanese export without a market.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. trend (para. 2) (n.) : _____
2. encourage, support (para. 4) (v.) : _____

B. Mark the best choice.

1. Japan has to make use of a variety of methods to deal with rubbish because _____.
   a) an average Japanese person produces more rubbish than an American
   b) the Japanese want to be the first to use a sophisticated system for handling trash
   c) Japan is a small country with little space to dump rubbish
   d) burning and burying rubbish are much easier than recycling and reducing in Japan
2. In Japan, _____.
   a) more than half of the food containers are recycled successfully
   b) recycling has always been popular among people
   c) enterprising firms collect facial tissues from the neighborhoods for the recycling process
   d) it is not possible to recycle button-shaped batteries because of their toxic composition
3. All of the following are **FALSE** according to paragraph 3, **EXCEPT** that _____.
   a) it is not compulsory in Japan to separate burnable waste from noncombustible waste
   b) incinerators are not in easy reach in most parts of Japan
   c) waste decreases considerably in size after it is burnt
   d) there are not as many incinerators in Japan as in the US
4. It can be inferred from paragraph 4 that _____.
   a) Japanese people do not like changing their furniture quite often
   b) by 2010, Tokyo will have started to ship its waste to the three neighboring towns
   c) recycling waste was quite effective in the 1980s
   d) unless the problem of trash is controlled, Japan may not find land-fill space for its waste



96 CYCLONES—THE KILLER STORMS

1 Weather is one of the many forces of nature over which mankind has little or no control over. It sometimes produces a disaster; crops are destroyed, buildings are flattened, and land is washed away by powerful storms called cyclones, typhoons or hurricanes. Let us look at these tropical storms, the damage they cause and the precautions, if there are **any**, which may reduce that damage.

2 Tropical storms, which are called hurricanes in the Atlantic and typhoons in the Pacific, are very severe storms with wind speeds exceeding 115 kph (kilometers per hour). Cyclones and other tropical storms do not occur in all parts of the world but are confined to latitudes 5° to 30° both north and south of the equator. Although the frequency of such storms varies from year to year, it averages about six per season. This season lasts from June to October in the northern hemisphere. Cyclones only form over water which is at least 37°C. In the early stages, cyclones behave just like ordinary storms. They start with winds coming in to fill an area of very low air pressure. As the winds approach the center of this area, they begin to turn anti-clockwise in the northern hemisphere and clockwise in the southern hemisphere due to the earth's rotation. The warm air currents, or winds, flowing towards the center pick up huge amounts of moisture, or water vapor, from the warm water below. Winds with speeds high enough to be called cyclones develop in the course of a few days. A cyclone generally moves towards the west until it hits land. During this time, the whole storm may be traveling at a speed of 25 kph or less. When the storm hits land it usually curves up to higher latitudes and begins moving eastwards. At this stage the cyclone's forward movement accelerates to 40 kph or more until it loses strength and is no longer considered a cyclone. Cyclones pass by any particular place in a few hours.

3 During its passage, a cyclone causes immense damage. Besides breaking trees, cyclones can knock down walls and lift the roofs off buildings. The pressure on the walls of buildings can exceed 400 kg/m^2—enough to flatten any non-strengthened structure. The wind speeds become faster at the center of the storm, which is called the 'eye'. If the eye of the storm passes over a weather station, the instruments which measure wind speeds and pressure may not be able to withstand these huge winds, so proper measurements are often not possible. The damage caused by a cyclone depends largely on how close the eye of the storm passes over densely populated areas and how flat the land is.

4 The damage from cyclones is not limited to the winds. Cyclones come together with torrential, i.e. heavy, rains which cause rivers to overflow their beds and flood flat land. Furthermore, the storm raises the sea level by about three meters, so the rivers cannot flow out to sea. Often cyclones are accompanied by extra high seas called "storm surges". These surges, or huge waves, reach far inland over flat areas. Bangladesh is one such area which has suffered storm surges repeatedly. In 1970, a surge swept over Bangladesh eventually killing over half a million people. This number was due to drowning and also to the disease and starvation that resulted after the cyclone destroyed the crops there.

5 Unfortunately, there are few precautions that can be taken to lessen cyclone damage. We can, however, inform people about the potential cyclones due to their constant monitoring by weather satellites. Flooding may be further reduced by building sea walls. These walls must be higher than the sea surge in order to protect the flat areas behind them. There is a sea wall in Texas, which was built after a storm surge killed 6,000 people in 1900 and caused a lot of damage. When another hurricane hit in 1915, only 275 lives were lost. There are sea walls like this in other places but their huge cost prevents many countries from constructing **them**. Although we can take some precautions to reduce the damage and loss of lives during severe storms, like all of nature's most powerful forces, we can do nothing to prevent cyclones.

A. What do the following refer to?

1. any (para. 1) : any _____
2. them (para. 5) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. limited (para. 2) (adj.) : _____
2. huge (para. 3) (adj.) : _____
3. reduce (para. 5) (v.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. Cyclones and other tropical storms do not occur in the northern hemisphere in spring.

T F 2. The sea wall that was built in Texas was not effective in saving the lives of people during a storm surge.

D. Mark the best choice.

1. Which of the following is **FALSE** about a cyclone?

   a) It needs an area of low air pressure to develop.
   b) After it hits land, it changes its direction.
   c) After it hits land, its speed decreases.
   d) It starts its journey over water as an ordinary storm.

2. Which of the following is **NOT** discussed in this text?

   a) precautions we can take against cyclones
   b) how cyclones get their names
   c) damage caused by cyclones
   d) how cyclones form

E. Answer the following questions.

1. What are the two factors that determine the amount of damage caused by a cyclone?

   a) _____

   b) _____

2. What were the three reasons that resulted in the loss of more than half a million people in Bangladesh in 1970?

   a) _____

   b) _____

   c) _____

3. What makes it possible to warn people about the probable cyclones?

   _____

   _____.

97 ENERGY EFFICIENT VEHICLES

1 Each year, 65% of the petroleum consumed in the world is used for transportation. As a result, vehicle emissions have become the leading source of air pollution today. However, recent advances in technology are helping increase fuel efficiency and reduce toxic substances which vehicles **discharge** into the air.

2 One way to improve vehicle performance and, at the same time, reduce emissions is to make changes in the composition of petroleum-based fuels, like gasoline and diesel fuel. Such new types of gasoline are developed using improved methods and they contain fuel additives to increase the oxygen content. This decreases harmful emissions such as carbon monoxide. Moreover, new diesel fuels which have lower sulfur contents or which are produced from clean-burning natural gas help vehicles with diesel engines achieve lower emissions.

3 In addition to advanced petroleum-based fuels, researchers are rapidly developing alternative fuels, such as electricity, ethanol, natural gas, and propane, which reduce or entirely **eliminate** harmful emissions. In the future, scientists will probably generate these fuels from renewable resources; for example, ethanol from corn or electricity from wind energy. However, this is not possible for some fuels such as natural gas and propane.

4 In an effort to increase fuel efficiency and to decrease air pollution, researchers are also making improvements in vehicle design, components, and materials. Alternative Fuel Vehicles (AFVs), which can either alternate between two fuels or operate on a mixture of two fuels are now available. In addition, recent developments in both AFVs and petroleum-based vehicles may double or triple the efficiency of current vehicles. Some of these new technologies include electric vehicles, which combine an engine with an electric motor, and fuel cells, which produce electricity by converting a fuel into water.

5 Two basic issues motivate the research into advanced fuels and vehicles. These are the dependence on imported petroleum and the increase in air pollution caused by vehicle emissions. Governments in many developed countries have set aside huge sums of money from their national budgets for research in these areas. Some governments have also passed laws to encourage businesses and individuals to **purchase** AFVs, although there is not much they can do about the existing old-technology vehicles which people still use. In the course of time, however, everyone will be using AFVs as there will be no other type of vehicle on the market.

A. Match the words in the left column with the meanings in the right column. There are more meanings than you need.

_____ 1. discharge (para. 1)	a) buy
_____ 2. eliminate (para. 3)	b) remove
_____ 3. purchase (para. 5)	c) emit
	d) arrange
	e) earn

B. Mark the following statements True (T) or False (F).

T F 1. The level of carbon monoxide emissions is lower in fuels which contain more oxygen.

T F 2. In the future, scientists will obtain all alternative fuels from renewable resources.

T F 3. AFVs are vehicles which can run on one or more fuels.

T F 4. With new laws, some governments have been able to limit the use of cars which are not AFVs.

T F 5. Although there is ongoing research into advanced fuels and vehicles, it seems that AFVs will never replace current vehicles completely.

C. Answer the following questions.

1. What makes it possible for cars with diesel engines to have lower emissions?

_____

_____.

2. Write the names of <u>two</u> new technologies which can greatly increase the efficiency of both AFVs and petroleum-based vehicles.

_____

_____.

3. Why do the governments in developed countries encourage research into advanced fuel and vehicles?

a) _____

b) _____.

98 WASTE DISPOSAL CRISIS

1 People have been throwing out trash ever since they were cave men. In fact, by looking through trash, archeologists can tell us a lot about the material wealth of people. Scientists who study the people of the 20th century will be particularly lucky because no civilization so far has thrown out so much as ours. Actually the amount of trash or garbage that we have is starting to become a serious problem. Up to now, we have just thrown away what we no longer wanted in large dumps at the edge of towns and cities. Then, it was either burned or buried so it did not smell or become an eyesore. We did not need to worry about dumps: they were far away from populated areas so most people were never even aware of **them**. However, with the rapid increase in population and the outward spread of cities, the dumps which we used in the past are now found near residential areas. They have become a threat to our health and to the environment. Thus, we have to apply more modern methods to produce disposal in big cities or find ways to reduce the waste that we produce.

2 In big cities like London and New York, which have had large populations for a long time, city officials have had to build more modern dumps which are called landfills. These are not just an open hole in the ground but are specially designed to cause as little harm as possible to the environment. They usually consist of several different layers. The bottom layer is made of clay and plastic so that the chemicals that leak out of the garbage do not enter the ground and thus pollute the ground water near landfills. Next, a pipe system is laid down. This will take the resulting chemical leakage to a treatment center. The trash is then dumped on this prepared area and as it fills up the area, it is covered with soil so that birds cannot reach it and the area does not smell. Since garbage produces methane gas as it decomposes, there are usually pipes which run vertically through the layer to collect **it**. Unless the methane gas is safely conducted away, it may explode. When the landfill is full, it is covered with thick layers of soil and after a while the land may be used as a site for a park or other open space. In this way, we can reclaim the use of the land without risking the health of the people there.

3 The amount of waste that a society produces seems to be determined by the level of economic development. The richer the country is, the more trash it produces. In Third World countries, a single individual produces less than half a kilogram of waste each day whereas in the developed world, each person can generate 1.8 kg. of garbage daily. A typical American throws out 590 kg. of garbage a year and 38 kg of plastic. Every year 220 million trees are cut down to make U.S. newspapers, 70% of **which** eventually ends up in landfills. For this reason, the landfills in America are huge. For example, the Fresh Kills Landfill in New York has 25 times the volume of the Great Pyramid in Egypt and receives 17,000 tons of garbage daily, six days a week! Due to their huge size, it is difficult for governments to find new sites for landfills as they lose their capacity to hold more waste.

4 It is possible to reduce the amount of waste that we produce in several ways. The amount of paper packaging on products that we buy could be reduced. Most products have two or three layers of packaging, including plastic bags, plastic trays, and cardboard boxes. Another way would be to separate old newspapers from our trash and use them to make new paper instead of cutting down so many trees for that purpose. This would further reduce the need to cut down forests. In addition, we can recycle the glass and metal that we throw out. By using separate bins for paper, bottles and metal containers, we could reduce the amount of waste that we produce by 80%. Similarly, old cars and machines could be used as scrap metal and thus reduce the need for mining so much metal ore. These things are very easy to do and yet most of us do not do them. We need to make everyone aware of the trash crisis. The governments must help us to recycle by providing separate bins for collection at convenient places.

5 To conclude, we are all responsible for reducing the amount of waste that we produce. We cannot keep throwing away useful things. We are not only finding it more difficult to dispose our trash, but we are also wasting precious natural resources. Unless we do something to educate people about this problem, we will have to face an even greater problem in the future.

A. What do the following refer to?

1. them (para. 1) : _____
2. it (para. 2) : _____
3. which (para. 3) : _____

B. Mark the best choice.

1. In the past _____.

   a) dumps were much more threatening to human health than they are now
   b) no methods were applied to prevent the dumps from becoming an eyesore
   c) people were more concerned about the dangers of dumps
   d) dumps were not as close to populated areas as they are now

2. The bottom layer of modern dumps are made of clay and plastic to _____.

   a) prevent the escape of the methane gas
   b) avoid the unpleasant smell of the garbage
   c) prevent the contamination of the ground water near landfills
   d) enable the dumps to hold more trash

3. In the United States _____.

   a) every week, 17, 000 tons of garbage is thrown into landfills
   b) people throw away 590 kg. of garbage, most of which is plastic
   c) there are landfills which are as big as the ones in Egypt
   d) people produce much more garbage than those in underdeveloped countries

C. Mark the following statements True (T) or False (F).

T F 1. The amount of trash thrown away has always been a serious problem for people since they were cave men.

T F 2. Methane gas is dangerous because it is poisonous.

T F 3. Today, the land which was once a landfill may be turned into a park or an open space.

D. Answer the following questions.

1. According to the text, what can be done to reduce the need to cut down forests?

   _____
   _____.

2. How can governments encourage people to recycle?

   _____
   _____.

3. According to the text, why should we do something to reduce the amount of waste that we produce? (Give two reasons)

   a) _____
   b) _____.

99 RECYCLING

1 Julie Lewis from Oregon, in the United States, is wearing an expensive-looking pair of boots. They are **durable**, i.e. long-lasting, and also fashionable. When you look at them you can't realize that they are made entirely of recycled materials. Julie owns her own shoemaking company and has achieved a long-term dream to turn waste into something useful. The shoes are made from all sorts of used materials, which include textile scraps (waste pieces of materials), rubber from tires, and plastic bags. Although she thinks that something has to be done before it's too late, Julie knows that she cannot solve the world's environmental problems **single-handed**. For such important issues, she needs support from others but still she feels she is doing a good job at a local level.

2 Recycling has become extremely popular in the US, particularly in recent years when the number of recycling **schemes**—organized plans—has increased by 500 percent. 65 percent of aluminum cans are recycled in addition to 25 percent of paper and 20 percent of glass. The interest in re-using materials has come from the realization that Americans produce far more waste per person than most Europeans; a total of 200 million tons a year. For example, this is twice the amount of waste produced in Germany and it is enough to fill a line of garbage trucks stretching eight times around the world.

3 America even exports its waste. Taiwan buys used paper to make more paper and Japan uses American scrap metal to produce new cars, which it then sells back to the US. Two thirds of the remaining waste is buried in landfill sites. Getting rid of waste is a major problem. Landfill sites can cause pollution of water supplies. As sites fill up, new ones need to be found. Some rubbish is burnt, but this pollutes the atmosphere. The obvious solution to this problem, then, is to recycle more. Recycling is already a big business—Julie Lewis being a perfect example. Her company has already attracted millions of dollars worth of investment. Recycled products are no longer seen as poor quality goods, but as useful alternatives.

4 A hugely successful plan has been operating in Palm Beach County since 1988. Rubbish is sorted into different categories. Paper, glass and plastic are sold to recycling firms. Kitchen waste is used to operate a generator which supplies electricity to 30,000 houses. Other materials are used to make soil, which is then used for growing fruit and vegetables.

5 There are arguments against recycling, in spite of the fact that it is environmentally friendly. Although many people show great interest in recycling schemes, it can be expensive to run them. As Lynn Scarlett, a government adviser from Los Angeles argues, it is not economical to transport materials for recycling from areas which still have a lot of landfill space.

6 Manufacturers in Germany are trying to solve the problem at the production stage. Thus, they mainly look at how their goods are packaged. Soap powders are now more concentrated and packed in small containers, toothpaste tubes are sold without boxes and plastic wrapping has been reduced.

7 In a time when newspapers and TV news bulletins are filled with depressing stories of environmental disasters, it is important to remind people, especially children, that they can improve the situation.

A. Guess the meanings of the following words using the clues in the text.

1. durable (para. 1) : _____
2. schemes (para. 2) : _____

B. Mark the best choice.

1. **'single-handed'** (para. 1) probably means _____.

   a) with others' support
   b) early enough
   c) without help
   d) without making an effort

2. Julie Lewis has always wanted _____.

   a) to run her own business
   b) to collect textile scraps
   c) to be involved in recycling
   d) to make fashionable shoes

3. Americans now recycle far more waste than they used to because they have realized that they _____.

   a) have to compete with Germany
   b) produce more rubbish than other countries
   c) need more aluminum
   d) can make a profit from recycling

4. Which of the following is **NOT TRUE** according to the third paragraph?

   a) One of the reasons for water pollution is landfill sites.
   b) Burning rubbish is not a good way of getting rid of waste as it causes air pollution.
   c) Americans export cars which are produced by using scrap metal.
   d) Recycling is a good way of making money.

5. The Palm Beach County plan involves _____ .

   a) producing energy from waste
   b) selling fruit and vegetables for profit
   c) producing glass bottles
   d) opening new recycling businesses

C. Answer the following questions.

1. What is the main argument against recycling?

   _____

   _____.

2. Why do German manufacturers pay so much attention to packaging?

   _____

   _____.

100 JOJOBA OIL COULD FUEL CARS AND TRUCKS

1 An oil frequently found on your bathroom shelf may prove a possible alternative to diesel fuel for cars and trucks. Early tests show that jojoba-fuelled engines release fewer pollutants, run more quietly and for longer, and perform just as well as diesels.

2 The search for alternative fuels, driven by shrinking oil reserves and concerns over exhaust emissions, has led researchers to investigate more enduring sources such as vegetable oils. Sunflower oil and soybean oil have both been tested as potential fuels. Now it is jojoba's turn. Jojoba is a desert plant that can reach up to 4.5 metres high and typically lives more than 150 years. The non-toxic oil is widely used as a non-greasy skin-smoothing ingredient in cosmetics.

3 Engineers think the oil has potential as a motor fuel because it releases a lot of energy when it burns and is chemically stable at the high temperatures and pressures in a working engine. To test jojoba in engines, Mohamed Selim and his colleagues at the United Arab Emirates University in Al-Ain and at the Helwan University in Cairo, connected sensors to a diesel engine and monitored **its performance** while burning regular diesel fuel and jojoba oil respectively. The results showed that jojoba is worth pursuing as an alternative fuel because it contains less carbon than fuels like diesel, which means lower emissions of carbon monoxide and carbon dioxide.

4 Selim says, "Jojoba can be grown in hot climates, salty soils and deserts. The use of jojoba as a fuel needs huge quantities of seeds, so it needs to be cultivated in huge amounts, which is easy in the desert lands in many countries". The plant has been grown for decades in south-western America and north-western Mexico. Jojoba plants are now cultivated throughout South America and in several Middle East countries. Farmers in Egypt have already started planting **them** specifically to use the nut oil as a fuel.

A. What do the following refer to?

1. its performance (para. 3) : the performance of _____
2. them (para. 4) : _____

B. Fill in each gap using the information in the text.

* Researchers are investigating alternative fuels because of (1a)_____ _____ and (1b)_____.
* When it burns in a working engine, jojoba oil (2)_____ and is (3)_____; therefore, it has potential as a motor fuel.
* To use jojoba as fuel, jojoba needs to be cultivated in (4)_____.

C. Answer the following questions.

1. What are two advantages of jojoba-fuelled engines?

   a) _____

   b) _____

2. Apart from being an alternative fuel, what other use of jojoba is mentioned in the text?

   _____

   _____.

ECONOMICS

101 SPICE TRADE

1 The marketplace of today is full of products from all over the world. Everything — from Mediterranean olive oil to coffee from South America to pineapple from the tropics — is available on grocery shelves. People have always been willing to pay for special things that taste good. What people demand, business people will supply.

2 The demand for spices has had a great effect on the history of the world. The spice trade began before history was written. There is still evidence of a route that spice merchants used for crossing Asia in prehistoric times. The spice trade has affected world history because it forced people from different countries to communicate. Traders used to be the main source of ideas and information from foreign countries. Arab spice traders, for example, probably brought the first news of Asia to the Middle East. **They** probably introduced the Middle East to spices as well. Spices such as cinnamon have been used in the Arabian Desert since at least 2,000 BC. Arabs sailed from the southern part of the Arabian Peninsula to the island of Sri Lanka, near India. In Sri Lanka, they met Chinese traders who had already sailed around the South China Sea, trading Chinese foods for spices. The Arabs traded their own products for the spices that the Chinese had obtained. This early spice trade brought people of different parts of the world closer together. In order to trade, they had to communicate. The traders saw people who lived in ways very different from their own. They traded, or exchanged, ideas and information as well as products. Furthermore, when they returned to their own lands, they took the new ideas and information with them. Their own people learned about other lands and people by listening to the traders' stories.

3 Arab traders had a monopoly on the spice trade for centuries because they were the only people who supplied spices to merchants. They controlled the spice trade for a long time. Eventually, the Arab monopoly ended because merchants from other countries began to trade in spices. However, the demand for spices was still greater than the supply. Therefore, both the Arabs and the other traders made money from their business. **Many of them** became rich. Many governments became rich, too. For example, the government of Venice became rich from the money that traders and merchants had to pay it for permission to sell spices. The spice trade was a good business, so European traders and governments wanted to enter the trade, too.

4 The Europeans knew that the only way they could compete with Middle Eastern and Mediterranean spice traders was to find a short route to the source of the spices, the countries where spices were produced. First, the Portuguese tried sailing around the African continent to reach the source of the spices. However, this journey was long and difficult. The investment of time and money was not worthwhile. The amount of time and money that the trip took caused the spices to be very expensive. Merchants could buy spices more cheaply from the Middle Eastern and Mediterranean traders than from the European traders. The Europeans had to find a better route in order to be able to compete with the other traders. The motive for the voyages of Christopher Columbus in 1492 and of John Cabot in 1497 was to find a shorter route. However, their journeys across the Atlantic Ocean brought the Europeans knowledge of the American continents, not spices. Their discoveries affected the history of the world.

5 The spice trade made the world both larger and smaller. It made the world larger because it increased people's knowledge of their world. They learned about countries that were different from their own. The spice trade made the world smaller because it encouraged people to communicate. When people communicate, the distances between them seem to become shorter.

A. What do the following refer to?

1. They (para. 2) : _____
2. Many of them (para. 3) : Many of _____

B. Mark the following statements True (T) or False (F).

T F 1. The beginning of the spice trade dates back to prehistoric times.

T F 2. In Sri Lanka, the Arabs exchanged spices for Chinese foods.

T F 3. The Portuguese reached the source of the spices by finding a short route.

C. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. provide (para. 1) (v.) : _____
2. a power or control which is not shared by other people or groups (para. 3) (n.) : _____
3. beneficial enough (para. 4) (adj.) : _____
4. reason (para. 4) (n.) : _____

D. Answer the following questions.

1. Why was the spice trade a source of income for many governments?

   _____

   _____.

2. Why was it important for the Europeans to find a short route to the source of the spices?

   _____

   _____.

3. How did the voyages of Columbus and Cabot affect world history?

   _____

   _____.

102 So You Want To Be A Millionaire?

1 There is no specific formula you can use to become a millionaire. At school, we are told that receiving a proper education is all that we need to do well in society. However, a recent study by Professor Gary Cooper of the University of Manchester has proven this wrong. Professor Cooper studied the lives of successful entrepreneurs and discovered that 60 percent left school early, either due to expulsion or boredom. Other studies show that there is little connection between how well children do at school and the success they achieve as adults.

2 At the moment, there are 95,000 millionaires in Britain alone. Those who recently became millionaires come from a wide variety of backgrounds. The easiest way is to start out wealthy. In a survey of the richest 200 people in Britain, **more than 50 percent** inherited money. Twenty-five per cent of those who head large corporations were born into wealthy families.

3 If you are not born wealthy, you may be able to take advantage of your good looks. Dr. Raymond Bull of Portsmouth University says that good looks make early life easier. He then adds that people expect a good-looking person to be kinder and more efficient. However, don't be surprised if you find yourself employed as a decorative figure due to your good looks, while your less attractive colleagues are moving up the career ladder.

4 Professor Cooper divided successful people into two categories: the entrepreneurs and the intrapreneurs. The former often left school early and had several business disasters. However, in general, they are very determined people. **The latter,** on the other hand, have risen up through the levels of organizations. They are the children everyone thought would do well. Over half of them went to universities. They are good organizers and get on well with people. One dramatic difference between Cooper's two groups is that many of the intrapreneurs felt that they had been the victims of discrimination early in their lives. This has not been the case for entrepreneurs.

5 Nonetheless, even if you were born poor and lack good looks, there is still plenty you can do to improve your chances of success. There are many self-help manuals available to help you reach the top. There is even a magazine called *Personal Success*, filled with ads for courses that will transform your thinking and behavior. Most of today's courses on positive thinking originated in the United States. Many start by emphasizing the importance of self-belief and its role in being successful.

6 All these methods are the result of the fact that the old idea of a career ladder leading to success in big corporations no longer applies. There is much greater emphasis on personal development. However, what none of these methods do is to look at the quality of your life or consider whether the price of success is too high. Most entrepreneurs are anxious people who are not strangers to self-destructive behavior. Twenty-five percent of top executives are unhappy with the long hours they have to work and the destructive effects this has on their family life. It seems that true success turns out to be based on more than motivation. There is a need for harmony, creativity, and healthy relationships.

A. What do the following refer to?

1. more than 50 percent (para. 2) : more than 50 percent of _____
2. the latter (para. 4) : _____

B. Fill in each gap using the information in the text.

* Professor Gary Cooper studied (1)_____ and disproved the idea that we must (2)_____ in order to do well in society.

* The realization of the fact that a career ladder may not lead to success in big companies resulted in the development of various methods to help people achieve success. While these methods emphasize the importance of (3)_____ in success more than before, they consider neither the (4)_____ nor (5)_____, which might be rather high.

C. Answer the following questions.

1. How can having good looks become a disadvantage in one's career?

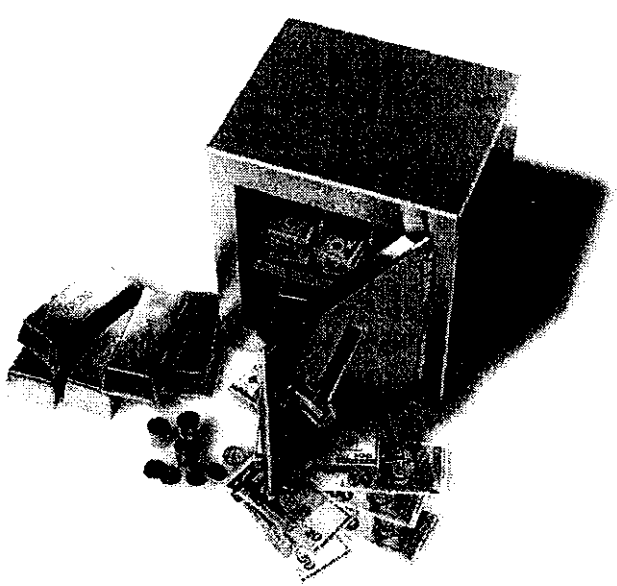
_____

_____.

2. According to the writer, what is "true success" based on?

_____

_____.



103 GLOBAL TRADE

1 For the first time in history, almost the entire world is now sharing the same economic system. Communism began to fall in the late 1980s and **since then,** capitalism has spread to most corners of the world. The basis of a "pure" capitalist economy is free trade, also called "open trade." There are benefits of open trade for both rich and poor countries. For developed countries such as Japan and England, free trade brings with it more competition, which, in turn, brings advantages such as lower prices and more choice of products for consumers. For developing countries, open trade means that people have much easier access to essential goods such as food, clothing, and fuel than before. An open economic system can be a key to improving the lives of people in both poor and rich countries because it can curtail poverty and improve living conditions.

2 This is apparently very good news. Optimists often say that "a rising tide lifts all the boats." What do they mean by this? Imagine a harbor filled with boats—some small ones, some medium-sized, and some huge ships. As the ocean tide comes in every eight hours, the water rises and literally lifts all the boats— both large and small. In economics, this expression means that in good economic times, poor countries benefit as much as rich countries do. However, pessimists point out that many of the "small boats" seem to be "leaking"—have holes in them—and so are going down instead of up. In other words, the gap between the rich and the poor—the economic difference between them— is wider than it was in the past. The contrast can be startling. According to *The Nation* magazine, "the wealth of the world's 200 richest people is greater than the combined incomes of the poorest 41 percent of humanity."

3 Why is this happening? What is causing this widening gap between the rich and the poor? Many of the poorest countries are at a disadvantage because of geography, which is the root of several problems. First, a country that is landlocked, with no access to an ocean or sea, has a disadvantage because it cannot easily transport **its products** to other parts of the world. Second, many—but not all—countries in tropical regions (near the Equator) have the disadvantage of heavy rains that often wash nutrients from the land. Without these nutrients in the soil, agricultural development is more difficult. Another obstacle for many countries is the problem of infectious diseases such as malaria and dengue fever, which are found only in tropical climates. It goes without saying that people with disease cannot contribute to the economy of the country.

4 Another cause of the growing gap between rich and poor countries is protectionist policies. In other words, many rich countries have governmental plans that give special help to their own people, so trade isn't actually completely "open." One example of a protectionist policy is an agricultural subsidy.* Unfortunately, governments in poor countries can't pay these subsidies to their farmers. Therefore, farmers in rich countries have a competitive edge in the global market. Other protectionist policies are "hidden." For example, a rich country might say its trade is open. However, it will not buy products from a poor country. Why? It says that the poor country does not have high enough health or safety standards.

5 It may sound as if the situation is hopeless for developing countries ever to have a competitive edge in global trade—but perhaps not. East Asia, for example, has found far more economic success than Africa has. The key to success seems to lie in each government's economic policy. Malaysia, Indonesia, and Thailand have the same tropical climate as many African countries, but their economies—unlike those of Africa—are growing fast. Their governments have created an economic climate in which people can move from agriculture to manufacturing. Geography is not as terrible an obstacle to manufacturing as it is to farming. To help new entrepreneurs, these governments pay careful attention to areas such as infrastructure (harbors, railroads, and so on) and telecommunications. In other countries, such as India, information technology is driving the economy. Computer technology doesn't depend on geography, but it does require educated workers. Therefore, education must be a priority. In addition, governments of developing countries must work with developed countries and persuade **them** to drop protectionist policies. Clearly, it is possible for governments to prepare a path out of poverty in even landlocked, tropical countries.

* ***agricultural subsidy:*** *money that the government gives farmers so that they can sell their products at a low cost.*

A. What do the following refer to?

1. since then (para. 1) : since _____
2. its products (para. 3) : the products of _____
3. them (para. 5) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. reduce; lessen (para. 1) (v.) : _____
2. shocking (para. 2) (adj.) : _____
3. people who set up a business to make a profit (para. 5) (n.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. According to optimists, in good economic times, poor countries have a chance of improving their economic situation as "a rising tide lifts all the boats."

T F 2. The pessimists believe there was a wider gap between the rich and the poor in the past.

T F 3. Malaria and dengue fever create an obstacle to economic development in tropical countries.

T F 4. Poor countries cannot afford to help their people through subsidies.

D. Mark the best choice

1. Which one of the following can be inferred from the text?

   a) Landlocked countries probably have a tropical climate.
   b) Malaysia, Indonesia, and Thailand probably do not follow protectionist policies.
   c) The economies of Malaysia, Indonesia, and Thailand no longer depend totally on agriculture.
   d) In India, there is probably a lack of educated workers.

2. India is one of those countries _____.

   a) whose economies depend on manufacturing
   b) which is at a disadvantage due to the protectionist policies of the government
   c) where the economy is driven by information technology
   d) where farming is the main source of income

3. Which one of the following best gives the main idea of the text?

   a) Tropical countries are usually at a disadvantage in the global economy.
   b) Almost the entire world now shares the same economic system based on the idea of open trade.
   c) Geography is a serious disadvantage for many landlocked, tropical countries.
   d) Many developing countries can improve their chances in global trade through good economic policies.

E. Answer the following question.

1. How can the consumers in developed countries benefit from open trade?

_____

_____.

104 HAD THEY EXPECTED THE GLOBAL ECONOMY TO TAKE THEIR JOBS?

1 The growth of the global economy is leaving millions of workers in the lurch. Inequality, unemployment and poverty are all signs of this. Rapid technological change and heightened international competition are damaging the job markets of the major industrialized countries. At the same time, various pressures are limiting governments' ability to respond to the crisis. Just when workers need help most, the state is letting them down.

2 This is not how things were supposed to work. The failure of capitalism to distribute wealth is a challenge not only to politicians, but to economists as well. Despite a continuing growth in international trade and finance over the past decade, productivity has decreased, while inequality in the United States and unemployment in Europe have increased. In Western Europe, the unemployment figures are frightening. For example, in France and in Belgium, the unemployment rate now is four times as high as it was between 1969 and 1973.

3 The Europeans have created a lost generation of workers, who feel insecure about their future. Europe is now suffering from it in terms of increased crime, drug addiction, violence against immigrants, and the increasing popularity of extremist political groups. The big question is why it is happening. Three basic explanations of the problem have been suggested.

4 One of these puts the blame on the relationship between developed and developing countries. Historically, developing countries provided the industrial world with raw materials in exchange for manufactured goods. Nowadays, over 60 per cent of such goods, from clothing to consumer electronics, are produced by these countries. The reason for this is that labor is cheaper in developing countries, with the result that workers in developed countries have less and less to do.

5 Some economists assert that technology must be responsible for this problem. According to this school of thought, the introduction of new technology means that there's less and less for assembly line workers to do as their jobs are being done by computer. These economists also emphasize the fact that the new technology *does* create new jobs and businesses, but only for skilled workers who know how to use a computer. These factors lead to an increase in the unemployment rate among unskilled workers.

6 The final explanation is immigration. The legal immigration of skilled workers actually helps the economy as it supplies talents that are needed, creates businesses and jobs, and raises output. On the other hand, the increase in the number of unskilled workers has forced down wages in many European countries. The immigrants' presence has also created an environment of crime resulting from feelings of hatred, as is already evident in parts of Western Europe.

7 It seems that retraining workers would be the key to solving the problem of unemployment and unequal pay in Europe, but the trouble is that while more training programs are needed, there is less and less money available to fund them.

8 The starting point for any positive policy would be to make it each nation's goal to improve the lives of its citizens. This means that economic policies should be structured so that working people can earn a living wage.

A. Mark the best choice.

1. "The growth of the global economy has left millions of workers in the lurch" (para. 1), probably means the growth of the global economy

   a) has resulted in a fierce competition among workers
   b) has created new job opportunities as expected
   c) hasn't proved to be as beneficial as it was predicted
   d) obviously wouldn't improve the inequality among workers

2. Which of the following is **NOT TRUE** according to the text?

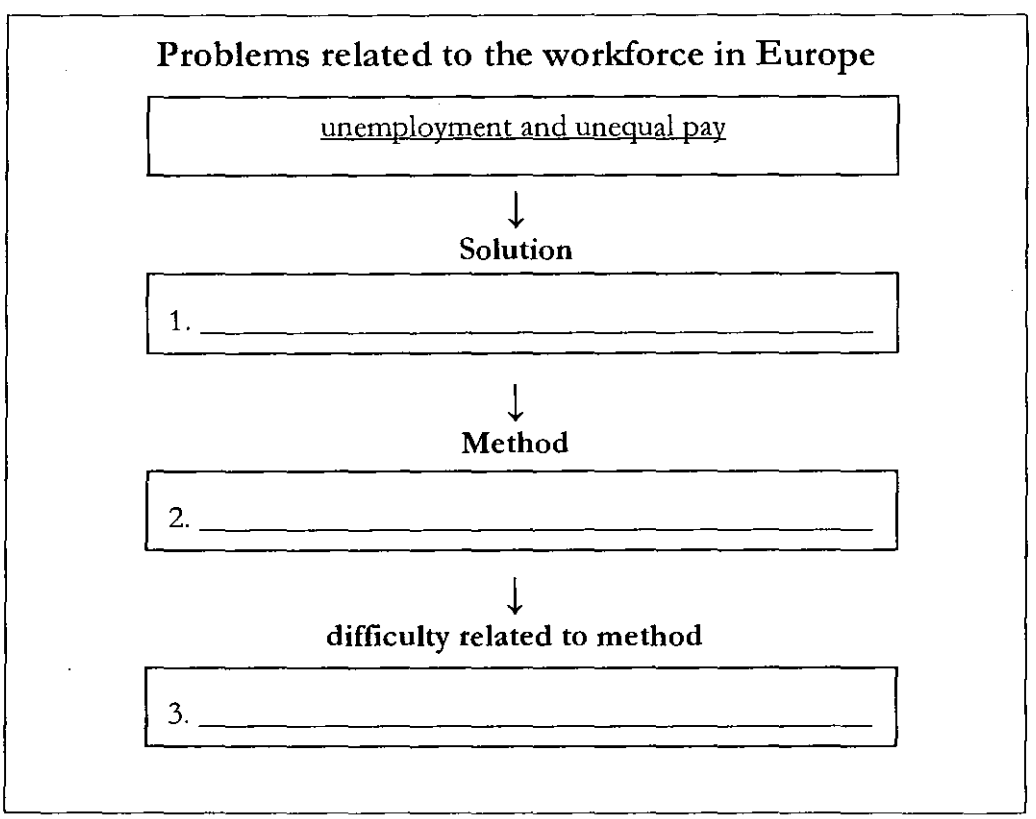
   a) It's the responsibility of both the politicians and the economists to find solutions to problems resulting from the failure of the capitalist system.
   b) Inequality, unemployment and poverty are some of the causes of the failure in the economic system.
   c) Rapid technological change and heightened international competition are two factors which affect the job markets negatively in industrialized countries.
   d) As the need for unskilled workers in developed countries declines for various reasons, these workers develop a tendency towards crime, drug addiction and violence.

B. Complete the missing information according to the text. You can use more than one word.

The reasons for the 'lost generation of workers' in Europe

the relationship between developed and developing countries	(2)_____	(5)_____
e.g. Most of the electronic goods or clothing, which used to be produced by European workers, are now manufactured in (1)_____	e.g. Although the introduction of technology has increased the number of jobs held by (3)_____, it has resulted in a higher (4) _____ among unskilled workers.	e.g. The negative effect of unskilled immigrant workers on economy is that they caused (6)_____ to go down. They also have a negative effect on the society, which results in (7)_____ due to feelings of hatred.

C. Fill in the chart below with the missing information according to the text.



105 HISTORY OF ECONOMICS

1 It is believed that the subject of economics first appeared in early Greek times. The reason for this belief is that the first writings on this subject were by Plato and Aristotle. Later, such Romans as Cicero and Virgil also wrote about **it**. However, there is no data showing the economic system during these times. The first known economic system was in medieval times, when the system of feudalism dominated. In feudalism, there was a strict class system consisting of nobles, clergy and the peasants. There was a series of nobles that were the holders of various sized lands. On these lands was a series of manors. These lands were similar to large farming tracts in which the peasants or serfs worked the land in exchange for protection by the nobles.

2 Later, the system of mercantilism predominated. It was an economic system of the major trading nations during the 16th, 17th, and 18th centuries, based on the idea that national wealth and power were best served by increasing exports and collecting precious metals in return. Manufacturing and commerce became more important in **this system**.

3 In the mid-eighteenth century, the Industrial Revolution ushered in an era in which machines instead of tools were used in the factory system. More workers were employed in factories in urban areas rather than on farms. The Industrial Revolution was fueled by great gains in technology and invention. **These** also made farms more efficient, although fewer people were working there. During this time the idea of "laissez faire", which means that economies work best without lots of rules and regulations from the government, became popular.

4 In the nineteenth century, there was reaction to the "laissez-faire" thinking of the eighteenth century due to the writings of Thomas Malthus. He felt that population would always advance faster than the science and technology needed to support such population growth. David Ricardo stated that wages were at a poor or subsistence level for most workers, rather than at a high or affluent one. John Stuart Mill provided the backdrop for socialism with his theories that supported farm cooperatives, labor unions and less competition. These theories were brought to a high point by Karl Marx who condemned the capitalistic "laissez-faire" theories of competition and instead favored socialism which marked more government control and also favored state rather than private ownership of property. Another important change at this time was in how goods were valued. Formerly, items' prices had remained steady, but at this time the value of an item came to be determined by the number of people wanting the item (demand) and the amount of the item available (supply). In fact, this is still valid in today's economic systems.

5 In the first half of the twentieth century, John Maynard Keynes wrote about business cycles - when the economy is doing well and when it is in a slump. His theories led to governments seeking to put more controls on the economy to prevent wild swings. After World War II, emphasis was placed on the analysis of economic growth and development using more sophisticated technological tools.

6 In recent years, economic theory has been broadly separated into two major fields: macroeconomics, which studies entire economic systems; and microeconomics, which observes the workings of the market from the perspective of an individual company, person or a group within an economic system. In the later twentieth century, ideas such as supply side economics, which states that a healthy economy is necessary for the health of the nation, and Milton Friedman's idea that the money supply is the most important influence on the economy, began to gain popularity. In the twenty-first century, the rapid changes and growth in technology have spawned the term "Information Age" in which knowledge and information have become important commodities.

A. What do the following refer to?

1. it (para. 1) : _____
2. this system (para. 2) : _____
3. These (para. 3) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. areas (para. 1) (n.) : _____
2. just enough to support (para. 4) (adj.) : _____
3. opposed / criticized (para. 4) (v.) : _____
4. decline / fall (para. 5) (n.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. According to Malthus, population couldn't grow without science and technology.

T F 2. At the end of the 20th century, it was believed that a healthier nation meant a healthier economy.

D. Answer the following questions.

1. What did the peasants receive for working the nobles' lands?

_____

_____.

2. What did the trading nations of the 16th century do to achieve national wealth and power?

_____

_____.

3. Name the two factors which determine the worth of an item **in the present**.

a) _____

b) _____.

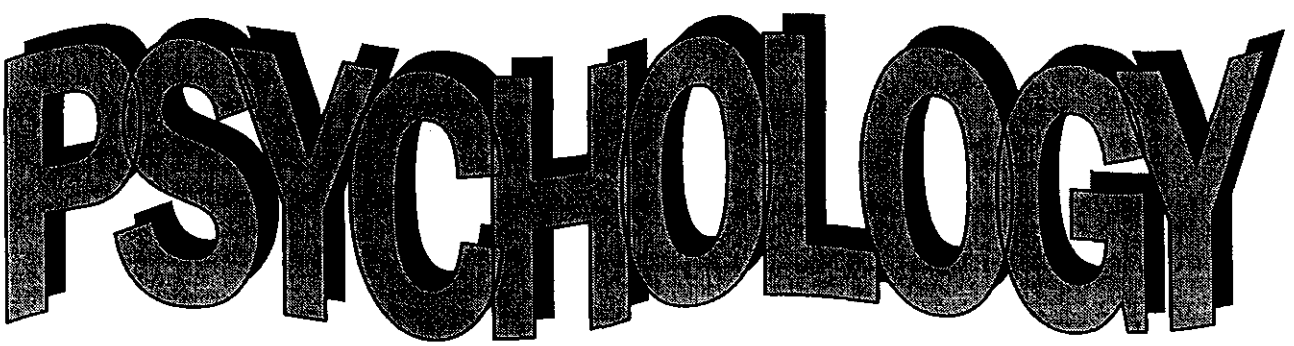
E. Mark the best choice.

1. Which of the following is **NOT** an idea supported by the "laissez-faire" thinking?

a) Low level of wages
b) High level of competition
c) Privately owned companies
d) State ownership of property

2. Which of the following is studied in microeconomics?

a) Differences between economic systems
b) The budget planning of a firm
c) Reasons for global economic growth
d) The unemployment rate of a country


PSYCHOLOGY

106 Does Honesty Always Pay?

1 What exactly is a lie? Is it anything we say which we know is untrue? Or is it something more than that? For example, suppose a friend has been on a diet for a while. When she sees you, she excitedly asks, "I have become thinner, haven't I?" and you say, "Yes, definitely." In fact, you cannot notice any difference, but you know that she is obsessed with her weight and you don't want to hurt her feelings. Well, is this really a lie?

2 Professor Jerald Jellison of the University of Southern California has made a scientific study of lying. According to him, women are better liars than men, particularly when telling a 'white lie,' such as when a woman at a party tells another woman that she likes her dress when she really thinks it looks awful. However, this is only one side of the story. Other researchers say that men are more likely to tell more serious lies, such as making a promise which they have no intention of fulfilling. This is the kind of lie politicians and businessmen are supposed to be particularly skilled at: the lie from which the liar hopes to profit or gain in some way.

3 Research has also been done into the way people's behavior changes in a number of small, apparently unimportant ways when they lie. It has been found that if they are sitting down at the time, they tend to move about in their chairs more than usual. To the trained observer, they are saying 'I wish I were somewhere else now.' They also tend to touch certain parts of the face more often, in particular the nose. One explanation of this may be that lying causes a slight increase in blood pressure. The tip of the nose is very sensitive to such changes, and the increased pressure makes it itch.

4 Another gesture which gives liars away is what the writer Desmond Morris in his book *Manwatching* calls 'the mouth cover.' He says there are several typical forms of this, such as covering part of the mouth with the fingers, touching the upper-lip, or putting a finger at one side of the mouth. Such a gesture can be interpreted as an unconscious attempt on the part of the liar to stop himself or herself from lying.

5 Of course, such gestures as rubbing the nose or covering the mouth or squirming about in a chair cannot be taken as proof that the speaker is lying. They simply tend to occur more frequently in this situation. It is not one gesture alone that gives the liar away but a whole number of things, and in particular the context in which the lie is told.

A. Answer the following questions.

1. What is a white lie (mentioned in para. 2)? Read paragraph 2 and define it in your own words.

_____

_____.

2. How is the kind of lie politicians tell different from the lie mentioned in paragraph 1?

_____

_____.

B. Mark the best choice.

1. Research suggests that women _____.

   a) are better at telling less serious lies than men are
   b) generally lie far more than men do
   c) make promises they intend to break more often than men do
   d) lie at parties more often than men do

2. One reason people sometimes rub their noses when they lie is that _____ .

   a) they wish they were somewhere else
   b) the nose is sensitive to physical changes caused by lying
   c) they want to cover their mouth
   d) they are trying to stop themselves from telling lies

3. It would appear from the passage that _____ .

   a) there is no simple way of finding out if someone is lying
   b) certain gestures are proof that the speaker is lying
   c) certain gestures are proof of lying only if they are repeated frequently
   d) people lie in some situations more often than in others

107 Anxiety And Phobias

1 Anxiety and fear are normal human emotions and are often found as reactions to stress. Stress is a difficult word to define because it includes both the things that make you anxious, such as working too hard or becoming ill, and your reactions to **them**. Normal anxiety is what we feel when we are exposed to external stresses such as losing a job, having difficulties in marriage, or our children getting ill. This type of anxiety is often called worry and remains with us until the problem is dealt with in some way. When anxiety occurs in response to a more immediate threat, like being attacked by a huge snarling dog or looking over a cliff edge, it is called fear. Normal anxiety becomes abnormal when the symptoms are so painful and distressing that they stop us from coping well with daily activities. Abnormal fears, sometimes called phobias, are intense fears of things which would not make the average person frightened. If we are terrified even by a little Pekinese dog sleeping in the corner of a room, or won't climb down even a short flight of stairs as the height bothers us, then we have a phobia.

2 When we are anxious, it shows in our minds and bodies. We cannot concentrate, we are irritable and easily distracted, and we become inefficient. We tend to sleep badly and get tired easily. The body shows the effects of anxiety by more powerful heartbeats (palpitations), tension and pains in muscles, sweating, dizziness, and indigestion. These symptoms are easily mistaken by anxious people for evidence of serious illnesses, like heart disease or cancer, and so **they** feel even worse.

3 Sudden unexpected surges of anxiety are called panic and are often so unpleasant that people can become fearful of having panic attacks. When anxiety and panic are accompanied by some depression, we feel sad, lose our appetite, and the future seems hopeless. A phobic has symptoms of intense anxiety or panic, but only in particular situations. The dog phobic is OK away from dogs, the height phobic is fine on the ground floor, the social phobic has no fear away from other people, and the agoraphobic feels much better at home. Phobias lead to avoidance of the things which are feared. Avoidance may not be easy—we can never be sure that a dog isn't lurking round the corner! Phobics usually know there is no real danger and may feel silly about their fear, yet they are unable to stop **it.** Some people's phobias are associated with repetitive obsessive thoughts that engage their minds. They might worry all day that the bump they heard while driving the previous day was a pedestrian they had knocked down, and then repeatedly retrace their route looking for the corpse, and ring police stations to ask if the body has been found. Or each time they leave home, they might have an urge to check that all the windows and doors are locked, not once but dozens of times, so that they are hours late for work or social engagements.

4 People under stress due to anxiety, fears, and obsessions often cope with them well if they recognize what causes them and realize that they will not last. Thus, someone about to take a driving test can be extremely anxious but knows that the feeling will go away once the test is over. If the symptoms continue, though, help is often sought. Some people delay seeking help because they are afraid that they might be regarded as "mad". In fact, people with anxiety and fears rarely have severe mental illness, and it is much better for help to be sought early rather than late.

A. What do the following refer to?

1. them (para. 1) : _____
2. they (para. 2) : _____
3. it (para. 3) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. very strong (para. 1) (adj.) : _____
2. a strong need, which is difficult to control (para. 3) (n.) : _____
3. continuous and unreasonable thoughts (para. 4) (n.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. The type of anxiety that a student has when s/he has problems with his /her lessons is an example of worry.

T F 2. Phobics experience intense anxiety or panic even when they are away from the things that they fear.

T F 3. Some people's phobias constantly keep their minds busy and prevent them from getting involved in certain daily activities.

T F 4. Most of the people who have the symptoms of anxiety and fear are mentally ill.

D. Answer the following questions.

1. What are the effects of anxiety on our bodies? Write <u>three</u>.

_____

_____.

2. Why don't some people with anxiety and fear ask for help immediately?

_____

_____.

108 CONTROL YOUR DREAMS

1 The secret of controlling the hidden powers of sleep lies in lucid dreams. A lucid dream is a special type of dream in which the dreamer is consciously aware of himself and of the fact that he is dreaming. Studies have shown that while only one in ten of us has regular lucid dreams, most of us experience them sporadically and almost all of us can, with patience and practice, discover how to produce and control them.

2 Lucid dreaming is a powerful research tool in scientific explorations of the dream state. It might also be helpful in increasing self-confidence, improving mental health, and facilitating creative problem solving. Moreover, lucid dreaming could be extremely beneficial to nightmare* sufferers, giving them the chance to overcome their fears. Thus, they could reduce their nightmare problems, and by doing so, increase their self-confidence and self-esteem. Lucid dreaming could also provide the handicapped and other disadvantaged people with the possibility of realizing their impossible dreams. Paralytics could walk again in their dreams, for example.

3 In the last 20 years, lucid dreaming has attracted serious attention from researchers. An early breakthrough in dream studies came during the mid-50s when two American scientists noticed that, at certain times during the night, a sleeper's eyeballs moved rapidly beneath closed eyelids as if watching moving images. If they were woken up at this point, most people reported that they had been dreaming. By monitoring the eye-movements electronically, researchers found that most of us dream every 90 minutes during our sleep.

4 So, how can you become a lucid dreamer and make dreams work for you while you rest? You must first train yourself to wake up towards the end of the last vivid dream of the night, as lucid dreams are most likely to occur just before we wake up. Using an alarm clock is not a good idea – it will wake you too abruptly to remember your dream. The trick is to train yourself to wake up naturally. Once you are awake, think carefully about your dream and try to remember as many details as you can. Next, devote five minutes to a mentally stimulating task, such as reading a book. Finally, turn over in bed again and say something like this: "The next time I dream, I will be aware of the fact that I am dreaming." Now, relax, close your eyelids, and begin moving your eyeballs gently as if you were in REM (Rapid Eye Movement) sleep. After a while, you will fall asleep once again, and if all goes according to plan, pick up the dream you just left. But this time you should know you are dreaming and be able to decide what happens next.

5 With practice, it is no longer necessary to wake up and go to sleep again. Each time you enter a lucid dream, and these can last from two to ten minutes, you will know that you are dreaming and be able to create whatever images you like. Don't be disappointed if learning to control lucid dreaming proves a lot more difficult than you imagined. Although lucid dreaming is a learnable skill, currently available methods, all of which involve mental concentration, require a considerable amount of time and effort. However, the effort is usually well worth it. After all, when you consider that even the liveliest and most energetic of us spends around 20 years of life asleep, it seems a dreadful waste not to make better use of the time!

*** a bad dream**

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. not often, irregularly (para. 1) (adv.) : _____
2. give (para. 4) (v.) : _____

B. Answer the following questions.

1. How is a lucid dream different from other dreams?

   _____

   _____.

2. How long does it take most people to have another dream after one dream is finished?

   _____

   _____.

C. Fill in each gap using the information in the text.

* (1)_____ can be scientifically explored by using lucid dreaming as a powerful research tool.
* Lucid dreaming can help nightmare sufferers to (2)_____. This will enable them to have more (3a)_____ and (3b)_____.
* If a sleeper's eyeballs are (4)_____ behind his eyelids, it is very likely that the person is (5)_____.
* (6)_____ may not be as easy as you expected because it requires mental concentration, and a lot of time and effort.

D. Mark the best choice.

1. Which of the following is **FALSE** according to paragraph 4?

   a) Reading a book before going back to sleep increases the chances of dreaming.
   b) It might be possible to stop lucid dreaming by moving the eyeballs gently.
   c) A person is more likely to remember a dream upon waking up naturally.
   d) Through training, dreamers could learn to go back to the dream which they just left.

109 TRANCE

1 The word 'hypnosis' comes from the Greek word 'hypnos', which means 'sleep'. Although it is hard to define hypnosis, because it has many aspects and degrees, it might be said that hypnosis is a kind of trance (a sleeplike condition) in which the subject responds strongly to the suggestions of the hypnotist. It is difficult to know exactly what changes hypnotism produces in the functioning of the nervous system or the personality.

2 There are many theories on hypnosis, but no single theory is accepted as completely explaining all aspects of hypnosis. One of the oldest theories regards hypnosis to be a form of sleep. This concept originated in 1784, and was further developed by Ivan Pavlov. However, this theory is contradicted by evidence which indicates that the hypnotized person is not asleep: the knee reflex, which is absent in sleep, is present in the hypnotic state, and recordings of brain waves show the typical patterns of the state in which we are awake.

3 Methods of putting a subject into a trance have changed in recent years. Very few modern hypnotists use the old method of staring into the subject's eyes. Instead, **they** use methods which emphasize relaxing or even sleep. The subject sits in a comfortable chair while the hypnotist talks quietly, giving the subject directions and suggestions which lead him slowly into a trance. The hypnotist watches for signs for **this state**. For example, many subjects don't talk when they are in a trance. Instead of talking, they nod or shake their heads when they have to answer the questions the hypnotist asks them.

4 The hypnotic trance may be classified according to its degree, which depends partly on the hypnotist and partly on the subject.

5 In a light trance, the eyes are closed, breathing becomes slower and the subject is able to carry out simple suggestions. The subject is usually unable to open his eyes or move his arms if the hypnotist tells **him** that he cannot.

6 In a medium-deep trance, the subject is able to experience feeling of movement even though he is not moving. After coming out of the trance, the subject may not remember what happened during the time he was in a trance.

7 In a deep trance, the hypnotist can produce very unusual effects. For example, he may tell the subject that, when he comes out of the trance, he will think that he sees a clock on the wall and that he will look at it and say it is midnight even though it's four o'clock in the afternoon. When he comes out of the trance, the subject will do what he is told to do, but he may not remember anything about what happened in the trance.

8 In contrast to many people who can be put into a deep trance quite easily, there are others who are not affected at all. The number of such people constitutes about 20% of the population, but this percentage may be higher among people who are 55 or older. Also, subjects who try too hard to fall into a trance may actually be difficult to hypnotize just like those who are afraid or suspicious of hypnosis or the hypnotist. People who resist the process can't be hypnotized either. However, some experimenters have reported that it was easier to hypnotize people who did not know they were being hypnotized. These subjects were patients who needed treatment for various kinds of nervous conditions. They were simply told that the doctor would teach them how to relax.

9 Contrary to popular belief, there is no possibility of the subject not awakening as a result of an accident to the hypnotist. It is also not true that a hypnotized subject is completely under the will or power of the hypnotist.

A. What do the following refer to?

1. they (para. 3) : _____
2. this state (para. 3) : the state of being in a(n)_____
3. him (para. 5) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. opposed, challenged (para. 2) (v.) : _____
2. doubtful (para. 8) (adj.) : _____

C. Mark the following statements True (T) or False (F).

T **F** 1. In 1784, Ivan Pavlov originated the theory that regards hypnosis as a form of sleep.

T **F** 2. Today, many hypnotists ask their subjects not to talk while they are in a trance.

T **F** 3. A subject may act strangely after a deep-trance due to the hypnotist's directions during the period he was in a trance.

T **F** 4. It's possible that more than 20% of the people who are 60 are not affected by hypnosis.

T **F** 5. A subject may not awaken if the hypnotist gets involved in an accident.

D. Mark the best choice.

1. Which of the following is **TRUE**?

   a) In a medium-deep trance, the subject can actually move.
   b) The subject may not remember anything only after deep trance.
   c) The subjects in a light trance keep their eyes closed and breathe faster.
   d) In a light trance, the subject cannot follow complicated directions.

2. Which type of people are hypnotized with less difficulty?

   a) Those who refuse to be hypnotized.
   b) Those who fear hypnosis.
   c) Those who are unaware of being hypnotized.
   d) Those who try too hard.

E. Answer the following question.

1. What proof is there to show that hypnosis is **NOT** a form of sleep?

   a) _____

   b) _____.

110 RAISING A SMILE

1 Humor, the way people regard things as amusing, was often seen in a very negative way in the past. For Plato, for example, it meant trying to give yourself a sense of superiority by making fun of other people, and he thought that only people who lacked self-confidence **did this**.

2 Modern psychology, however, regards humor with more respect. Sigmund Freud, the founder of psychoanalysis, considered laughter to be a means of releasing nervous energy safely. He thought laughing provided relief and made potentially damaging disagreements harmless. While this approach is still very influential, more recent work in psychology has also focused on the social value of being funny, that is, the useful role of the well-timed joke or light remark in everyday encounters.

3 A study of humor has revealed that a person's sense of humor depends very much on his point of view. Political opinions and ethnic background all influence the way a joke is received and how funny people find it. The study has also shown that humorous people are perceived as being more likeable, and this enables them to have a greater influence on others. In one experiment, trained psychology graduates played the role of sellers in a bargaining situation in which a painting was to be sold. They were instructed to take a humorous approach, while others made no jokes at all and bargained in a straightforward, serious way. It was found that the dealers with the more light-hearted attitude were able to get a significantly higher price for the painting. What humor does, in this context, is to reduce the buyer's feelings of threat and anxiety and to establish a more relaxed relationship with the seller. In this way, both trust and attraction are increased and the buyer feels safe.

4 The implications of this study are quite important. If humor can help the salesman, then it can also help others in a similar way in different situations. If you can get people to laugh with you, then you have already established a degree of leadership that you can later build on. Humor can improve your image in a conversation with a group of friends. It can be used as a persuader in other social contexts and is useful in opening conversations with the opposite sex. Establishing a relaxed mood helps a relationship to develop quickly. Making jokes may also allow you to avoid a useless discussion without hurting the other person's feelings.

5 Many researchers believe that being really funny can only be achieved by returning to a more childlike view of the world. This may be related to the fact that comedians adopt humor early in life as a way of getting people to like them and attracting their attention. Many comedians have reported that their use of humor developed in early schooldays and was a means of coping with anxiety-producing situations. Such strategies were rewarded with laughter from both classmates and teachers.

6 As Freud suggested, humor can also be a replacement of aggression with a more positive attitude. The professional comedian is thought —by psychoanalysts— to be an angry person whose skills allow him to express his aggression in a socially acceptable and productive manner. In other words, comedians are regarded as aggressive people, but they have enough strength of character to transfer their emotions into a creative expression.

7 As well as for comedians, for all of us, humor is not only a valuable social tool but also a useful way of coping with personal frustrations or emotional difficulties. By laughing about **them**, we achieve a more relaxed mood in which we are better able to communicate with others.

A. What do the following refer to?

1. did this (para. 1) : _____
2. them (para. 7) : _____

B. Mark the best choice.

1. Sigmund Freud regarded humor with respect because he believed _____.
   a) humor gives a person a chance to feel superior to others
   b) people can get rid of nervous energy by laughing
   c) the relief that laughter provides makes harmless conflicts damaging
   d) funny people have self-confidence
2. The experiment which involved trained psychology students revealed that _____.
   a) they had difficulty in playing the role of sellers in a bargaining situation
   b) the customers who didn't make any jokes bargained in a straightforward, serious way
   c) the dealers with a humorous approach were able to persuade the customers more easily
   d) the buyer felt threatened and anxious when the seller had a light-hearted attitude
3. Which of the following is **NOT TRUE** according to paragraph 4?
   a) Jokes may help a person avoid an unnecessary discussion without being rude.
   b) A humorous salesman can help other people in different situations.
   c) A person who can make others laugh is likely to impress the people in the group.
   d) It's easier for a man to approach a woman if he has a humorous style.
4. Many researchers are of the opinion that _____.
   a) if a person perceives the world through the eyes of a child, he is very likely to be considered funny by others
   b) many students did not develop a sense of humor because their classmates and teachers made fun of them
   c) many comedians tried to attract others' attention with their anxiety problems when they were at school
   d) if a person uses humor to cope with anxiety in early schooldays, he will become a good comedian
5. Psychoanalysts regard comedians as _____.
   a) people who don't have a strong character and thus who don't like others laughing about their true feelings
   b) aggressive people who are not strong enough to transfer their emotions into a creative expression
   c) people whose sense of humor neither has any social value nor helps them cope with personal frustrations
   d) people who can use their skills to express their anger in a productive way

111 THE MIND-BODY CONNECTION:

Are You Blocking Your Way to Success and Happiness?

1 The holistic perspective, or the view which accepts the mind and the body as parts of a whole, is still a mystery for many people. This is because they probably grew up seeing their mind and their body as completely divided, separate systems. In fact, when they became ill, their bodies were treated in separate units, which has been **the case** in traditional Western medicine for centuries. The holistic perspective, on the other hand, regards **the two** as interrelating parts of a whole.

2 According to the holistic perspective, the mind-body connection occurs through vehicles called meridians. We have thousands of meridians, which are energy channels that run throughout the body and are associated with our organs. In Eastern medicine, the energy flow through the meridians is referred to as 'prana.' Prana means 'life force.' If this life force becomes blocked from trauma or from life's demands (popularly known as stress), illness can occur. Illness can show itself in all forms, from severe pain to a weak immune system to organ problems. These blocks in the life force can slow one's progress toward creating a satisfying life. For example, one can be too ill or in too much pain to try new things. Apart from physical illnesses, there can be psychological disturbances, such as depression, which can prevent one's ability to create the relationships one needs in order to succeed. The stress in our life can also block our creativity. When our creativity is blocked, we can never truly judge or understand how to reach complete happiness.

3 What can be done to open blocked meridians? First of all, we should try to get rid of the clutter of years of anger and fear. **These feelings** absorb the energy we can otherwise devote to creating supportive relationships and environments that will carry us toward our dreams. If we cannot overcome our problems by ourselves, we can consult professionals. Today, just like people who practice holistic health, modern medical practitioners are also beginning to **acknowledge** the connection between the mind and the body and treat their patients' physical and emotional illnesses as a whole. In addition to traditional treatment methods, more and more doctors are prescribing exercise and stress-reduction techniques. In some cases, massage, acupuncture, and other alternative therapies are recommended as supplementary care.

4 In order to become healthy, happy, and successful individuals, we need to bring our bodies to a state where our life energy flows freely. This flow can occur only with a dedicated mind, a mind committed to health and well-being. The most important step is to maintain a balanced life that includes mindful eating, physical activity, and a peaceful mind. Being balanced, healthy, strong, and flexible creates the self-esteem, confidence, and strength for being successful in life. This lifestyle will **ultimately** lead to achieving one's fullest potential.

A. What do the following refer to?

1. the two (para. 1) : _____
2. These feelings (para. 3) : _____

B. Mark the best choice.

1. 'the case' (para. 1) refers to _____.
   a) becoming ill
   b) treating patients' bodies in separate units
   c) viewing the holistic perspective as a mystery
   d) accepting the mind and body as parts of a whole
2. 'acknowledge' in paragraph 3 is closest in meaning to _____.
   a) complete
   b) accept
   c) provide
   d) break
3. 'ultimately' in paragraph 4 is closest in meaning to _____.
   a) temporarily
   b) sufficiently
   c) carefully
   d) eventually

C. Fill in each gap using the information in the text.

* The holistic perspective maintains that there are thousands of meridians throughout the body acting like (1a)_____, and they provide (1b)_____ between the mind and the body.
* Illness might occur when trauma or stress (2)_____, which means life force.
* As well as physical illnesses or psychological problems like depression, stress might also (3)_____. As a result, we become unable to make good judgments and find the path to happiness.
* Today, many medical health practitioners prescribe alternative stress-reduction therapies besides (4)_____.
* (5a)_____, (5b)_____, and (5c)_____ are all necessary for leading a healthy and balanced life.

D. Mark the best choice.

1. Which of the following **CANNOT** be inferred from the text?
   a) The holistic perspective is part of Eastern medicine.
   b) Our life force can flow freely if we learn to cope with life's demands.
   c) Modern medical practitioners will soon give up prescribing traditional medicines.
   d) Many people probably grew up without learning about the principles of the holistic perspective.

112 THE EFFECTS OF OUR ENVIRONMENT

1 Physical settings, architecture, and interior design affect our communication. Recall for a moment the different homes you have visited lately. Were some of these homes more comfortable to be in than **others**? Certainly a lot of these kinds of feelings are shaped by the people you are with, but there are some houses where it seems impossible to relax, no matter how friendly the hosts are. We've spent what seemed an endless evening in what Mark Knapp calls "unliving houses," where spotless ashtrays, furniture coverings, and plastic lamp covers seemed to be sending nonverbal messages telling us not to touch anything, not to put our feet up, and not to be comfortable. People who live in these "unliving houses" probably wonder why nobody ever seems to relax and enjoy themselves at their parties. One thing is quite certain: **They** don't understand that the environment they have created can communicate discomfort to their guests.

2 There's a large amount of research that shows how the design of an environment can shape the kind of communication that takes place in **it**. In one experiment at Brandeis University, Moslow and Mints found that the attractiveness of a room influenced the happiness and energy of the people working in it. The experimenters set up three rooms: an "ugly" one, which resembled a janitor's closet in the basement of a campus building, an "average" room, which was a professor's office, and a "beautiful" room, which was furnished with carpeting, curtains, and comfortable furniture. The subjects in the experiment were asked to rate a series of pictures as a way of measuring their energy and feeling of well-being while at work. Results of the experiment showed that while in the ugly room, the subjects became tired and bored more quickly and thus it took them longer to complete their task. Subjects in the beautiful room, however, rated the pictures they were judging more positively, showed a greater desire to work, and expressed feelings of importance, comfort and enjoyment.

3 Many business people show an understanding of how environment can influence communication. Robert Sommer, a leading environmental psychologist, described several such cases. In his book *Personal Space*, he points out that dim lighting, lowered noise levels and comfortable seats encourage people to spend more in a restaurant or bar. Knowing this fact, the management can control the amount of customer turnover. If the goal is to run a high-volume business that tries to move people in and out quickly, it is necessary to keep the lights shining brightly and not worry too much about keeping sound out. On the other hand, if the goal is to keep the customers in a bar or restaurant for a long time, the proper technique is to lower the lighting, and use absorbent building materials that will keep down the noise levels. Furniture design also affects the amount of time a person spends in an environment. From this knowledge came the Larsen chair, which was designed for Copenhagen restaurant owners who felt their customers were occupying their seats too long without spending enough money. The chair is constructed to put an uncomfortable pressure on the sitter's back if occupied for more than a few minutes. Sommer also describes how airports are designed to discourage people from spending too much time in waiting areas. The uncomfortable chairs, connected shoulder to shoulder in rows facing outward, make conversation and relaxation next to impossible. Faced with this situation, travelers are forced to move to restaurants and bars in the terminal, where they not only feel more comfortable but also spend money. Casino owners in places such as Las Vegas also know how to use the environment to control behavior. To keep gamblers from noticing how long they have been playing roulette and blackjack, they build their casinos without windows or clocks. Unless they wear a wristwatch, customers have no way of knowing how long they have been gambling.

4 Even the design of an entire building can shape communication among its users. Architects have learned that the way housing projects are designed controls to a great extent the contact the neighbors have with each other. People who live in flats near stairways and mailboxes have much more neighbor contact than those living in less heavily traveled parts of the building, and tenants generally have more contact with immediate neighbors than with people even a few doors away. Architects now use this information to design buildings that either encourage communication or increase privacy, and house hunters can use the same knowledge to choose a home that gives **them** the neighborhood relationship they want.

A. What do the following refer to?

1. others (para. 1) : other _____
2. They (para. 1) : _____
3. it (para. 2) : _____
4. them (para. 4) : _____

B. Fill in each gap using the information in the text.

* The Larsen chair was designed for Copenhagen restaurant owners who had complaints about the fact that (1)_____.
* With their uncomfortable chairs connected shoulder to shoulder in rows that make conversation and relaxation impossible, airports are designed in such a way that they (2)_____.
* It is more likely for people to have contact with their neighbors if they (3)_____.

C. Answer the following questions.

1. What message does a person get in a house where there are spotless ashtrays, furniture coverings, and plastic lamp covers?

   _____

   _____.

2. What general conclusion can be drawn about workers and the environment they work in from the experiment done by Moslow and Mints?

   _____

   _____.

3. Why should the management of a restaurant avoid dim-lighting or lowered noise levels if they aim at a high volume business?

   _____

   _____.

4. What do casino owners do to make the gamblers stay longer?

   _____

   _____.

113 MONSTERS OR VICTIMS?

1 Serial killers and their motives have always attracted people's interest. Why do they kill? Does killing result from genetic, hormonal, or other biological factors? Does cultural conditioning play a role in killing? Do serial killers have any control over their desires and rage? We all have our unfulfilled desires and experience rage, but we have some sort of internal cage that keeps our inner monsters locked up. What about serial killers? Are they insane? What sets them apart from others? Now let's have a look at the characteristics that an average serial killer has.

2 Statistically, serial killers have some common character traits: The average serial killer is a white male from a lower to middle-class background, usually in his twenties or thirties. In their childhood, most are physically or emotionally ill-treated by parents. Some are adopted. As children, serial killers often set fires, torture animals, and wet their beds, which are the three important symptoms of future serial killers. Brain injuries are another common feature. Still, some are very intelligent and have shown great promise as successful professionals. They are active, outgoing figures in business and society. Most serial killers are also fascinated with authority in general. Some have attempted to become police themselves but have been rejected; some have worked as security guards or served in the military. Many, such as John Gacy and Ted Bundy, disguise themselves as people who are responsible for enforcing the law to gain access to their victims. Carrying badges and driving vehicles similar to those of the police help them feel important and approach their victims, who would otherwise never talk to strangers.

3 Serial killers tend to choose victims weaker than themselves. Often their victims will fit a certain stereotype which has symbolic meaning for the killer. This meaning is related to the killer's existence. Most of the time, they tend to generalize certain characteristics which they see as a threat and kill people who they believe have these characteristics. For the killer, the victim's existence in this world is a problem which can only be solved through the act of destruction. As the killer has generalized the threat into a certain stereotype, the killing game never ends. Ted Bundy, for example, killed college girls with long brown hair. Was he killing over and over again because of his upper-class fiancé, who broke off her engagement with him? Another killer hated all women: "I blame them for everything. Everything evil that has happened in the world somehow goes back to them." John Gacy strangled young men, some of whom were his own employees, seeing them as "worthless little creatures." Some believe that Gacy's rage was projected onto the boys, who represented his own childhood and relationship with his own authoritarian father.

4 Serial killers usually try to present a number of excuses for their killing. Henry Lee Lucas, killer of an unknown number, blamed the way he had been brought up. Others like Ted Bundy, who killed about 36 women, claimed pornography made him do it. Herbert Mullin, Santa Cruz killer of 13, blamed the voices in his head that told him it was time to "sing the die song." The most psychopathic, like John Gacy, turned the blame around and said that the victims deserved to die.

5 Can a normal person slaughter another human for the simple pleasure of it? One thinks that serial killers are totally insane and that we can notice their insanity easily. We assume that a maniac with an uncontrollable wish to kill will be unable to control himself. On the bus, in the street, we try to avoid the mentally ill, the untidy, unshaven man who speaks loudly to himself. However, the most frightening fact is that serial killers mostly seem quite normal, and they calculate their acts very carefully. If we want to avoid serial killers, our best strategy should be to stay away from nicely dressed, polite individuals, as they mix among ordinary people easily. We can see him anytime, anywhere. "Dress him in a suit and he looks like ten other men," said one psychiatrist in describing Ted Bundy. Like all evolved predators, serial killers know how to approach their victims by gaining their trust. **They are wolves in sheep's clothing**: they hide behind a carefully constructed appearance of normality.

6 We believe that we have control over our impulses, and, no matter how angry we get, there is something that stops us from taking our aggression out on others. What about serial killers? What makes them different from us? The answer to this question may be lying in the darkest side of man's mind and may take psychologists a long time to find out.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. change someone's appearance so that people cannot recognize them (para. 2) (v.): _____
2. a strong feeling of uncontrollable anger (para. 3) (n.) : _____
3. kill violently (para. 5) (v.) : _____

B. Answer the following question.

1. Why can't we recognize a serial killer from his physical appearance?

_____

_____.

C. Fill in each gap using the information in the text.

* Most serial killers are attracted by (1) _____. In fact, some of them have even wanted to be policemen themselves. They dress like policemen in order to (2)_____ and (3)_____.
* Serial killers tend to (4) _____ for their violent acts. For example, Ted Bundy put the blame on (5)_____. Some other serial killers, such as John Gacy, claimed that (6)_____.

D. Mark the best choice.

1. Which one of the following is **NOT** a feature of average serial killers?

a) Some are successful in their professional lives.
b) Most of them are shy and introverted.
c) Many exhibited violent behavior in their childhood.
d) Some have worked as soldiers in the army.

2. Serial killers are wolves in sheep's clothing (para. 5) probably means that they _____.

a) tell what comes to their mind openly
b) do not care about the victims' feelings
c) hide their true motives
d) can break people's heart easily

3. It can be inferred from the text that _____.

a) Ted Bundy's fiancée probably had long brown hair
b) serial killers are mostly unemployed people
c) Herbert Mullin tended to kill teenagers
d) John Gacy wanted to kill his father when he was a child

114 WHERE DO DREAMS COME FROM?

1 Most people dream at night. When they wake up in the morning, they say to themselves, 'What a strange dream I had! I wonder what made me dream that.' Sometimes dreams are frightening. Sometimes, in dreams, wishes come true. We can fly through the air or float from mountain tops. At other times we are troubled by dreams in which everything is confused. In dreams we act very strangely. We do things which we would never do when we are awake. Why are dreams so strange? Where do they come from?

2 People have been trying to answer this since the beginning of time. But no one has produced a more satisfying answer than a man called Sigmund Freud. One's dream-world seems strange and unfamiliar, he said, because dreams come from a part of one's mind which one can neither recognize nor control. He named this the 'unconscious mind.' The unconscious mind is like a deep well, full of memories and feelings. They have been stored there from the moment of our birth. Our conscious mind has forgotten **them.** We do not suspect that they are there until some unhappy or unusual experience causes us to remember. Then suddenly we see a face we had forgotten long ago. We feel the same jealous fear and bitter disappointments we felt when we were little children. This discovery of Freud's is very important if we wish to understand why people act as they do, for the unconscious forces inside us are at least as powerful as the conscious forces we know about. Why do we choose one friend rather than another? Why does one story not affect us at all? Perhaps we know why. If we don't, the reasons may lie deep in our unconscious minds.

3 In Freud's day, it seemed that no one knew very much about the mind. If a person went mad, or 'out of his mind,' there was not much that could be done about it. People didn't understand at all what was happening to him. Had he been possessed by a devil or evil spirit? Was God punishing him for wrongdoing? Often such people were shut away from the company of ordinary people as if they had committed some terrible crime. This is still true today in many places. Doctors prefer to experiment on those parts of a man which they can see and examine. If you cut a man's head open, you can see his brain but you can't see his thoughts or ideas or dreams. In Freud's day, few doctors were interested in these subjects. Freud wanted to know what makes us think and feel as we do; that is, he wanted to know how our minds work. He went to Paris to study with a famous French doctor, Charcot, whose special field of study was diseases of the mind and nerves. He learned a lot from **him.** When he returned to Vienna in 1886, he began to work as a doctor for nerve diseases. Most of the patients who came to see him were over-excited and anxious, sick in mind rather than in body. Medicine did not help them. Freud was full of sympathy, but he could do little to make them better.

4 Then one day, a friend, Dr. Josef Breuer, came to see him. He told Freud about a girl **he** was looking after, who seemed to get better when she was allowed to talk about herself. Dr. Breuer allowed her to talk at great length, and she told him everything that came into her mind, whether it seemed important or not. Each time she talked to him, she remembered more about her life as a little child. Freud was excited when he heard this. He began to try to cure his patients in the same way. He asked about the events of their early childhood; he urged them to talk about their own experiences and relationships while he himself said very little. Often, as he listened, his patients relieved occasions from their past lives. The doctor did not make any attempt to stop them. He let them speak as they wished, while he himself remained calm and quietly accepted whatever they told him. One young woman who came to him couldn't drink anything although she was very thirsty. She would hold a glass of water to

her lips and then push it away. Something prevented her from drinking. Freud discovered the reason for this. One day, as they were talking, the girl remembered having seen a dog drink from her nurse's glass. She hadn't told the nurse, whom she disliked, and had forgotten the whole experience, but suddenly this childhood memory returned to her mind. When she had described it to Dr. Freud, the girl was able to drink again. Freud called this treatment the 'talking cure.' Later, it was called psychoanalysis. When patients talked freely about the things that were troubling them, they often felt better and learned to control their fears.

5 Whatever Freud learned he reported to other doctors, and many of them were greatly upset by his discoveries. Even Dr. Breuer's courage was not enough for him to continue with his experiments, and Freud stopped his experiments. It was hard to believe that people could become blind, or lose the power of speech, because of what had happened to them when they were children. The human mind was turning out to be a dark and fearful place.

6 Freud was attacked from all sides for the things he said and wrote. He made many enemies, but he also found firm friends. Many people believed that he had at last found a way to unlock the secrets of the human mind and to help people who were very miserable. He had found the answer to many of life's great questions. He became famous all over the world and taught others to use the 'talking cure.' His influence on modern art, literature, and science cannot be measured. People who wrote books and plays, people who painted pictures, people who worked in schools, hospitals, and prisons all learned something from the great man who discovered a way into the unconscious mind.

7 Not all of Freud's ideas are accepted today, but others have followed where he led and have helped us to understand ourselves better. Because of him, and them, there is more hope than there has ever been before for people who were once just called 'crazy.'

A. What do the following refer to?

1. them (para. 2) : _____
2. him (para. 3) : _____
3. he (para. 4) : _____
4. it (para. 4) : _____

B. Mark the following statements True (T) or False (F).

T F 1. In Freud's time, mad people were isolated from other people.

T F 2. In the 'talking cure,' patients were allowed to speak freely about the things that were bothering them with little interference from the doctor.

T F 3. Many doctors, including Dr. Breuer, were not pleased with Freud's discoveries, which made him stop his experiments.

T F 4. Freud's influence was not limited to his own field of study.

C. Mark the best choice.

1. Freud thought our dreams came from _____.

a) unhappy or unusual experiences which happened before we were born
b) the conscious forces we know about
c) a part of our mind where memories have been stored since birth
d) the unconscious mind that we can easily recognize

2. Freud was concerned with the mind because he _____.

   a) was interested in the method of treatment called psychoanalysis at the time
   b) wanted to find out how the mind works
   c) thought the human mind was a dark and fearful place
   d) believed he could treat the patients who were sick in body in that way

3. Freud began to cure his patients by talking to them after _____.

   a) his friend Dr. Breuer told him about his method of treatment
   b) a young woman who couldn't drink anything came to him as a patient
   c) he returned to Vienna from Paris in 1886
   d) he worked with a French doctor, Charcot

D. Answer the following questions.

1. Why wasn't Freud successful in curing his patients in Vienna?

   _____

   _____.

2. How does psychoanalysis help patients?

   _____

   _____.

BIOLOGY & GENETICS

115 SLEEP

1 Many people think that nothing happens when they sleep. Doctors, on the other hand, have studied sleep for many years, and they think that a lot happens when people sleep.

2 Doctors say that people have five stages of sleep and that they usually go through each phase about every 90 minutes. During the first two stages, you sleep lightly. If someone calls you or puts his or her hand on you, you wake up quickly. Your body rests quietly. You breathe more slowly than when you are awake. Your heart beats slowly. During stages three and four, you sleep deeply. If someone puts his or her hand on you, you don't wake up. Your heart beats more slowly than it does in stages one and two. Neither sounds nor lights wake you up. The last stage of sleep is called REM (Rapid Eye Movement). During REM sleep, your eyes move under your eyelids. You breathe faster, and your heart beats faster than it does in the previous stages. All of these things happen because you are dreaming. Dreams are another issue that fascinates people. Doctors say that everyone dreams, but while some people are good at remembering their dreams, others simply forget **them**.

3 People do not need the same amount of sleep. Some people get enough rest with only four or five hours of sleep a night, and others may require twelve hours of sleep. That is, they may need a twelve-hour sleep. Why do you need to sleep? Is it bad for you if you don't sleep for some time? Doctors say you won't be sick, but you will be sleepy and tired the next day.

4 Some people worry a lot about sleep. Americans, especially, spend at least 25 million dollars a year on sleeping pills. However, doctors say this is a bad idea. After you use sleeping pills for about 14 days, **they** don't help you anymore. Some sleeping pills won't let you go into sleep stage four; others won't let you go into REM sleep. Therefore, you can't get a good night's sleep with sleeping pills. So, what can you do if you have a sleeping problem? Take a warm shower before you go to bed. Don't drink coffee or eat a lot before bedtime. Drink a glass of warm milk. Finally, do not think about your problems in bed.

A. What do the following refer to?

1. them (para. 2) : _____
2. they (para. 4) : _____

B. Find another word in the text that means:

1. stage (para. 2) : _____
2. need (para. 3) : _____

C. Mark the following statements True (T) or False (F).

T F 1. In stages three and four, your heart rate is the slowest.

T F 2. During the fourth stage of sleep, you will probably wake up if you hear music.

T F 3. Because some people don't dream at all, they don't go through the REM stage.

T F 4. For some people, four hours of sleep a night is enough.

T F 5. You will get seriously ill if you don't sleep for a few days.

D. Answer the following questions.

1. How is REM stage different from the other four stages?

_____

_____.

2. Why don't sleeping pills help people to sleep well?

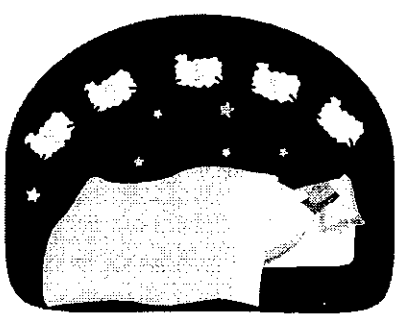
_____

_____.

E. Mark the best choice.

1. A possible title for this passage can be _____

a) What Happens When You Can't Sleep?
b) Dangers of Sleeping Pills
c) All You Want To Know About Sleep
d) Reasons Why People Need Sleep



116 ALL IN THE MEMORY...

1 Many people complain that their memory is bad, particularly as they get older. Phone numbers, names, and facts we studied only a few days ago are easily forgotten. Life would be so much easier if we could remember **them** all effortlessly. So how can we improve our memory?

2 Many people think that repeating things is the best way to remember them. While this undoubtedly helps short-term memory (remembering a telephone number for a few seconds, for example), psychologists doubt whether it can help you remember things for very long. The British psychologist E. C. Stanford seemed to prove this point when he tested himself on five prayers that he had read aloud every morning for over 25 years. He found that he could remember no more than three words of some of them! If you want to remember numbers, "chunking," or grouping the information, is much more helpful. The following numbers would be impossible for most of us to remember: 1492178919931848. But look at them in 'chunks,' and it becomes much easier: 1492 1789 1993 1848.

3 So what about "memory training?" We've all heard about people who can memorize packs of cards – how is this done and can anyone learn how to **do it**? According to experts, there are various ways of training your memory. Many of **them** involve forming a mental picture of the items to be memorized. One method, which may be useful in learning foreign languages, is to create a picture in your mind associated with a word you want to remember. For example, an English person wishing to learn "pato" (the Spanish word for "duck"), could associate it with the English verb "to pat." Imagining someone patting a duck on the head would remind the learner of the Spanish word.

4 Another method is to invent a story that includes all the things you want to remember. In experiments, people were asked to remember up to 120 words using this technique; when tested afterwards, on average, they were able to **recall** 90 per cent of them! Surprisingly, however, there is nothing new about these methods – they were around even in ancient times. The Roman general Publius Scipio could recognize and name his entire army – 35,000 men in total!

5 However, not all of us are interested in learning long lists of names and numbers just for fun. For those studying large quantities of information, psychologists suggest that the best way to "form meaningful connections" is to ask yourself lots of questions as you go along. So, for example, if you were reading about a particular disease, you would ask yourself questions like: "Do people get it from water?" "What parts of the body does it affect?" and so on. This is said to be far more effective than time spent "passively" reading and re-reading notes.

6 Finally, what about this problem? What happens when people lose their memories? Memory loss can take many forms: cases of people who forget their identity and end up wandering the streets are relatively common. Rarer cases include the man who lost his memory for faces and believed that a stranger was watching him every time he looked in the mirror, or the man who lost his visual memory and could not recognize everyday objects, confusing a pen with a knife, for example.

A. What do the following refer to?

1. them (para. 1) : _____
2. do it (para. 3) : _____
3. them (para. 3) : _____

B. Guess the meaning of the following word using the clues in the text.

1. recall (para. 4) : _____

C. The text mentions some techniques to help people remember things. Read it carefully and find out which techniques are useful for remembering the things given below. Write the techniques in the gaps provided. There is an example at the beginning.

TECHNIQUE:	IT IS USEFUL FOR REMEMBERING:
Example: Chunking, or grouping	long numbers
1. _____	things for a few seconds
2. _____	foreign words
3. _____	long lists of words
4. _____	large quantities of information you are studying

D. Mark the following statements True (T) or False (F).

T F 1. Methods for remembering things have been known since ancient times.

T F 2. It is very common for a person to lose his memory for faces.

E. Answer the following questions.

1. What did the British psychologist Stanford prove?

_____

_____.

2. Give an example of how a person who has lost his visual memory behaves.

_____

_____.

117 UNDERSTANDING THE HUMAN BRAIN

1 Historically, anatomists have been able to make vague inferences about the human brain by comparing it to the brains of animals; i.e., if mammalian brains have grown outward from a root structure --the brainstem-- which is similar to the complete brain of a reptile*, it's reasonable to suppose that "reptilian" responses (e.g., breathing, heart rate, pleasure) might still exist there. Likewise, the more complex mammalian behaviors (e.g., social organization and caring for the young) should logically be controlled from other regions which reptiles don't have.

2 But **that's about as far as comparative anatomy will get you**. In order to map the living brain in greater detail, researchers have traditionally waited for humans to have an accident or disease. When a part of the brain is destroyed or disconnected, doctors can observe the changes in the victim's behavior, cognitive (reasoning) abilities, reported sensation, etc., and thereby understand the function of the affected region. Since this kind of damage can be devastating, it's hard not to see this as one of science's darker corners.

3 Over the centuries, the misfortunes of a few have provided important knowledge to scientists, and a reasonably detailed map has been drawn that can offer us helpful hints like "If you're an artist or a dancer, let the bus hit you on the left side. If you're an auctioneer or used car salesman, let it hit you on the right."

4 Fortunately, beginning in the 1980s, it became possible to measure brain activity directly and non-destructively, using two exciting new technologies: Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI). A PET scan relies on the detection of gamma rays and can take detailed neural "snapshots," or brightness maps, which accurately reflect the levels of activity across the entire brain, all at once. With a PET scan, an image taken of a brain at rest can be contrasted with an image of a brain doing a specific task. **This** yields a very exact picture whose bright spots highlight only the brain areas that are directly involved. These highlights are repeatable, too; the same areas will light up every time the subject performs that task. So while we can't yet tell what a person is thinking, we're rapidly developing the means to see where they're thinking, and thus, at least in rough terms, what they're thinking about. The MRI scan operates on a different principle: sensing the electromagnetic signature of oxygen directly. Its sensors rely on powerful electromagnets which can literally suck bits of metal completely through a human body.

5 As this kind of mapping continues and our brains' self-understanding explodes, it isn't hard to imagine some sinister applications. What if enemy governments or criminal organizations had the ability literally to read our minds? We might not want even our friends and lovers to know us quite that well. Still, there are as many intriguing possibilities on the positive side. Knowing exactly how our brains function, we may find it possible to cure a host of neurological and psychological ailments.

*reptile: a cold-blooded animal like a turtle or snake

A. What does the following refer to?

1. This (para. 4) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. indefinite, not clearly explained (para. 1) (adj.) : _____
2. threatening, harmful (para. 5) (adj.) : _____
3. exciting, fascinating (para. 5) (adj.) : _____

C. Mark the best choice.

1. "that's about as far as comparative anatomy will get you" (para. 2) probably means: "Comparing the brains of different creatures _____."

   a) is one of science's darker corners
   b) provides only limited information for scientists
   c) can help scientists control mammalian behaviors
   d) makes it possible to map the brain in greater detail

2. It can be inferred from the text that _____.

   a) because of the differences in their brains, the behaviors of reptiles are more complex than those of mammals
   b) auctioneers and used car salesmen depend on the left side of their brains in their jobs
   c) people in similar careers are likely to have similar accidents at work
   d) before the 1980s, scientists did not know about the functions of the different areas of the brain

3. The main idea of paragraph 5 is _____.

   a) enemy governments or criminal organizations might use brain mapping for their own benefits
   b) scientists know that people close to us will soon be able to read our minds
   c) brain mapping might bring about benefits as well as unfavorable consequences
   d) the greatest advantage of brain mapping will be the improvement of our self-understanding

D. Answer the following questions.

1. Which technological advances enabled doctors and scientists to study brain activity without causing any damage?

   _____

   _____.

2. What do the neural snapshots taken by a PET scan show?

   _____

   _____.

118 DISEASE DETECTIVES

1 Recent technological changes are making modern medicine more popular and exciting than ever before. New technology is now available to modern "disease detectives," doctors and scientists who are using clues to solve medical mysteries—that is, to find out the answers to questions of health and sickness. The knowledge of genetics may prevent or cure birth defects and genetic illnesses. Successful transplants of the heart, liver, kidney, and other organs of the body are much more common than **they** were ten or twenty years ago.

2 Modern "disease detectives" include microbiologists, epidemiologists, and other scientists who try to find out the reasons for an epidemic—a sickness that many people in one region have. These experts talk to people with the disease and ask them many questions, such as: What do you eat most often? How often do you wash your hands? Do you use drugs? They inspect kitchens, bathrooms, and air-conditioning systems. Then they study the outside environment for clues that might give them information about the disease. They share the information that they find with laboratory scientists, who have the benefits of microscopes and computers. Together, they work to find the causes of modern killer diseases.

3 What are genes and why are "disease detectives" always trying to find out more about them? Genes are part of the nucleus (that is, the center) of every cell; in the form of DNA, this "genetic material" determines the characteristics of every living thing—every plant, animal, and human being. Medical geneticists are scientists who study DNA and genes for many purposes: (1) to learn how organisms such as bacteria and viruses cause illnesses; (2) to detect the gene or combination of genes that causes inherited diseases like sickle-cell anemia and Huntington's disease; (3) to understand the gene changes that lead to birth defects or genetic illnesses; (4) to change gene structure and thus prevent or cure genetic diseases; and (5) to improve the chances of success in organ transplants. For these and other reasons, genetics is an important part of modern science and medicine.

4 Another field that modern disease detectives are highly interested in is organ transplantation. Organ transplants are not only more common but also more successful now than they were in the past because of modern technology. In other words, people with a new heart, liver, or kidney can live much longer than **they** did in the past. Not long ago, transplant patients often died after a few days because their bodies fought against the new organ. New drugs, however, now help the human body to accept a new part. In addition, knowledge of genes and DNA increases the possibility of successful organ transplants. Doctors can now try to "match" the characteristics of the organ donor (the person who gives the body part) and the receiver. Furthermore, scientists can change genes. They can change the structure of DNA, and they can also put genes from one organism into another. In the future, therefore, scientists may put human genes into pigs or other animals, and farmers may raise animals for the purpose of organ transplants for humans.

A. What do the following refer to?

1. they (para. 1) : _____
2. they (para. 4) : _____

B. Fill.in each gap using the information in the text.

* "Disease detectives" try to learn about the causes of an epidemic by interviewing (1)_____, looking over disease-spreading areas in homes such as kitchens, bathrooms and air-conditioning systems and examining (2)_____. They work together with (3)_____ and with the help of modern devices, they try to find the agents that lead to fatal diseases.

* Genes, which form part of the nucleus of every cell, are very important for "disease detectives" because they (4)_____ of all plants, animals, and humans. Studying DNA helps scientists: to understand how bacteria and viruses can give rise to illnesses; to find out (5)_____ which bring about genetic diseases; to learn about the changes in genes which cause (6)_____; to treat genetic diseases by changing (7)_____; and to increase the rate of success in organ transplants.

* Today (8)_____ has made organ transplants more successful.

  In the past, transplant patients' bodies did not (9)_____ the new organs, so the patients often died shortly after the operation. However, thanks to today's new drugs, the human body accepts a new part more easily.

  (10)_____ is another reason why organ transplants are more successful today. Now it is possible for doctors to (11)_____ of the transplant patient and the person who gives the organ. In addition, scientists can make changes in the structure of DNA and transfer genes between organisms.

119 BRAIN CIRCUITS

1 The complexity of the human brain has made brain research the last great border between what is known and unknown. Scientists from many different fields have combined their findings to understand the mystery of how the brain functions. Their research has led to our understanding of how information scattered throughout the brain can be brought together in "circuits"—connections of different parts of the brain working simultaneously. These circuits direct many actions and skills which are required in our lives. Scientists are just beginning to learn which circuits control which skills and how the number of circuits affects intelligence.

2 As researchers learn new things about the working of the brain, they sometimes learn that some of their earlier ideas were incorrect. One misconception was that people must mentally or physically pronounce words to understand them. Actually, people can understand words by either hearing or seeing them. In both situations, circuits go to the left frontal lobe, which gives meaning to the words.

3 Information in the brain is scattered everywhere. Different types of words -- nouns, verbs, adjectives — are kept in different places. In addition to this, the brain also separates the parts of images and stores them in different places in the visual cortex. The visual cortex has different places for color, movement, size, etc. Thus, if the color part of the cortex is damaged, people can still see, but they cannot see in color. Similarly, if the movement part is damaged, then a person can see only stationary objects. In short, different features are dealt with separately but are combined instantly.

4 The brain also switches circuits. There is one circuit for learning new things and another for remembering. In one study, common nouns were shown to 11 adults. They were supposed to give a matching verb. For example, if they saw the word "bird," they might have answered with "fly." In this exercise, four areas of the brain were active. The adults did this exercise for 15 minutes with different nouns. Then they were given the same nouns again. This time, the original four areas were not active. Instead, the brain's motor system, which automatically controls muscles, was activated. Thus, the brain does not consciously think after it has learned the answer. It simply responds automatically. However, when the adults were given new and different words, the original four areas were reactivated. It seems that the brain uses certain circuits for learning new words, and after it has learned them, it switches to "remembering" circuits for those same words.

5 Of course, sometimes people learn something partially. Then they use both areas for thinking and remembering. However, they use less energy for automatic remembering than for conscious thinking. In other words, in the process of learning new words, people think less and therefore use less energy when they see a new word a second time. They continue to think less and use less energy until the new word is completely learned.

6 Interestingly, the decrease in energy for thinking seems to be related to intellectual development in children and intelligence in adults. When a baby is born, its brain is highly active, and it is a mess of brain circuits. It uses a lot of glucose—the sugar that the brain burns for energy—for its thinking, and it uses even more of it as it grows older until it becomes five years old. At this time, a child uses about two times as much glucose as an adult. Then, the child starts to use much less glucose and fewer circuits until the age of 15. The decreasing use of brain circuits is called "pruning," the cutting of unneeded circuits. Just as trees grow better when they are pruned, people become more intelligent as more circuits are pruned. Those people whose circuits are pruned the most become the most intelligent. That is, more intelligent brains use less energy because they use fewer brain circuits, but less intelligent brains use more circuits and therefore waste more energy. Pruning may, therefore, explain why some people are more intelligent than others.

A. Find the synonyms of the following words or word groups in the text and write them in the blanks provided.

1. operates (para. 1) (v.) : _____
2. wrong idea (para. 2) (n.) : _____
3. reacts (para. 4) (v.) : _____

B. Find the antonyms (opposites) of the following words in the text and write them into the blanks provided.

1. moving (para. 3) (adj.) : _____
2. completely (para. 5) (adv.) : _____

C. Mark the best choice.

1. The study on matching verbs to a list of nouns shows that _____ .

   a) four areas of the brain are active during the remembering process
   b) the brain's motor system is active during the learning process
   c) the brain uses different circuits for the learning and remembering processes
   d) the brain switches from one circuit to another every 15 minutes

2. When does pruning take place in a child?

   a) From birth till he becomes 5 years old.
   b) From birth till he becomes 15 years old.
   c) From the age of 5 to 15.
   d) From 15 onwards.

D. Fill in each gap using the information in the text.

* Our (1)_____ and (2)_____ are controlled by brain circuits, which connect different parts of the brain.

* In order to understand words, we have to (3)_____ or (4)_____ them. When we try to understand words, the (5)_____ of the brain is active. This is where the words gain their meaning.

* Information is everywhere in the brain because the brain separates different word groups and (6)_____ and it keeps them in different places.

* After you've seen a new word for the first time, you start using less and less energy every time you see it again. This means (7)_____ requires less energy than thinking.

* A baby's (8)_____ consumption increases constantly up to a certain age and even reaches a higher level than that of an adult.

* There seems to be a relationship between the number of circuits and intelligence. A person with more intelligence has (9)_____ circuits than an average person.

120 GENETIC ENGINEERING

1 Dramatic achievements in genetic engineering are rapidly revealing the secrets of how genes work. Some researchers are probing into its social and economic benefits. For example, they are trying to produce more meat and milk from genetically engineered cattle. Moreover, current advances bring medicine closer to curing hereditary illness in humans, instead of merely treating its symptoms, as medical practices are now restricted to doing.

2 However, many people are worried: what if an evil dictator produces hundreds of copies of himself through cloning in order to take over the world or grieving relatives use cloning to bring their loved ones back to life? The truth is there is no chance that any copy of a human being would be identical either physically or mentally, any more than children are identical to their parents.

3 Scientists quite reasonably point out that human genetic engineering still faces immense technical obstacles. Getting a new gene into a cell is just the first of many giant steps that are required. Like NASA engineers sending a space probe into another planet, researchers must not only deliver a gene to their target, but then turn it on and get it to work properly.

4 It was just these problems that thwarted the controversial work of UCLA's Dr. Martin Cline. In July 1980, he tinkered with the bone marrow of two young women suffering from thalassemia, a fatal defect in hemoglobin production. The idea was to give a few of their marrow cells normal genes in hopes that the repaired cells would multiply and cure the inborn defect. It does not appear to have worked. When the experiments were revealed the following autumn, Cline was asked to resign his post as head of his division. The following year, the National Institute of Health stripped him of two federal grants – he had four – worth more than $190,000. The unprecedented punishment was a stern warning to researchers to move slowly in testing gene therapy on people.

5 Cline's approach is sadly limited as it can apply only to tissues whose cells, like those of bone marrow, continue to divide throughout life so that the genetically engineered cells can eventually replace the natural, defective ones. Many organs produce cells only intermittently or, like the brain, stop altogether once they are fully developed. For defects in these organs, other methods are needed. One hope is to insert the desired gene into a virus that would infect the afflicted tissue and use the virus to get the gene to its target – cells with defective genes.

6 However, the method, called viral transduction, is problematic. As Thomas Caskey, professor of medicine and biochemistry at Baylor College of Medicine, sees it, "the problem is to engineer a virus so that it will be defective, that is, will not cause a disease, yet will carry the desired gene into a certain tissue and reproduce it just as disease-causing viruses reproduce their own genes. This is a formidable task, but not insurmountable."

7 Perhaps not, but all forms of gene therapy now being explored present problems that will keep them from being widely used. Caskey says "people have gotten the impression that this work is going to lead to miraculous cures, but it is really going to be applicable only to a small category of patients with rare diseases." The trouble is that the gene therapies now under development can work only with inherited diseases limited to a single tissue and there are relatively few of such diseases. Most genetic disorders have far wider effects. Cystic fibrosis, for example, affects the lungs, intestinal tract, pancreas and sex organs. So far, there is no way to deliver a 'good' gene to all these tissues at once.

8 Other defects present even more difficult problems. Down's syndrome, the most common cause of severe mental retardation, is genetic, but it is not caused by a single gene. Instead, Down's patients carry an entire extra chromosome, a package of DNA comprising several thousand genes. No one has been able to devise a way to remove that extra chromosome from every cell in a child's body, or to undo the damage it wreaks on the brain. Nor will gene therapy avert such disorders as diabetes, heart disease and high blood pressure. These are all produced in large part by environmental factors, but they develop most often in people genetically predisposed to them. These conditions, too, probably involve more than one gene, medical geneticists believe.

9 Getting foreign genetic material into a complex organism is no easy task. Most scientists have simply injected the new genes into a fertilized egg through a glass needle finer than a hair. They call this technique microinjection. The process is traumatic and many of the eggs die. However, some survive, and when transferred into the uterus of a host mother, they can live out lives that appear otherwise normal.

10 The first success of this kind was reported by three Yale scientists, who were able to identify foreign genes in one, or perhaps two, of 150 newborn mice grown from microinjected eggs. Of crucial importance for the future of embryo genetic engineering, those mice passed the gene along to their children and grandchildren. However, it is not enough simply to get the genes into the animal. Once there, they must behave normally and this involves two more problems. The first problem is gene expression: a gene 'expresses' itself by making the protein it is supposed to make. The other problem is gene regulation: a gene must not only make the right protein, but turn it out at the right place and time and in the right amount.

11 If putting a foreign gene into an embryonic mouse is no easy task, getting the gene to express itself is far more challenging. Since the Yale announcement, a number of research groups have reported successful gene insertion and even inheritance. However, only **three** have claimed that the foreign genes in their engineered rodents expressed themselves.

12 These successes in engineering other species force us to wonder about the genetic manipulation of *Homo Sapiens*. As we want to heal hereditary illness, we are slipping toward the genetic engineering of human beings almost without realizing it. Nonetheless, genetic engineering will not be forced upon us as a few social forecasters have led us to believe, by a new Hitler wishing a mindlessly obedient populace. We will seek out, applaud its humane goals and espouse it greatly.

A. What do the following refer to?

1. its (para. 1) : the social and economic benefits of _____
2. three (para. 11) : three _____

B. Answer the following questions.

1. According to the 1st paragraph, what are today's practices in medicine restricted to?

   _____

   _____.

2. Why is there no need to worry about cloning?

   _____

   _____.

3. What is the problem with gene therapies under development?

   _____

   _____.

C. Fill in each gap using the information in the text.

* Genetic engineers have to deal with two main technical problems: one is to (1)_____. The other problem is to (2)_____.

* The problems presented by some defects complicate the use of gene therapy in curing illnesses. For example, Down's syndrome, a genetic defect leading to (3)_____, results from (4)_____, which cannot be removed from all the cells in a child's body. Moreover, although genetic predisposition plays a role in the development of some disorders such as diabetes, heart disease and high blood pressure, it is usually (5)_____ that bring about these illnesses. Scientists think that these disorders might also involve (6)_____.

* Microinjection, which can be described as the injection of (7)_____ _____ with the help of a very fine needle made of glass, is a traumatic process. However, after the eggs which are able to survive (8)_____ _____, they can live out lives that seem quite normal.

D. Mark the best choice.

1. Which of the following is **NOT TRUE** about Dr. Martin Cline?
   a) He gave normal genes to the marrow cells of two women with thalassemia.
   b) He expected that the genetically engineered marrow cells would increase in number and cure thalassemia.
   c) Despite his success in curing the women with thalassemia, he was punished by the National Institute of Health.
   d) He had to leave his post and lost two of the four grants he had been given.
2. The method of viral transduction is hoped to _____ .
   a) cure defects in organs or tissues which continuously produce cells
   b) make use of a defective virus in order to cure cells with defective genes
   c) obtain defective genes by inserting a virus into human body
   d) enable scientists to reproduce the genes of disease-causing viruses
3. It can be inferred from the text that _____ .
   a) curing human genetic disorders can be considered a form of genetic manipulation of human beings
   b) Yale scientists seem to have solved the problems of gene expression and gene regulation
   c) social forecasters are right to warn the public against the devastating effects of genetic engineering
   d) genetic engineering will not be employed by scientists in the future due to the problems that cannot be solved

121 GENETIC ETHICS

1 The promises of genetic engineering seem almost limitless. In only a few years, scientists have developed methods for producing valuable new substances and materials, and predicting which diseases a person is likely to get in later life. Even more remarkably, medical researchers have been able to locate the genes responsible for nearly six hundred diseases. Locating these genes is the first step toward repairing or replacing them and thus preventing the diseases they cause. Together with the many benefits of genetic research, however, are the dangers and risks involved whenever scientists interfere with the basic structures of life.

2 One of the most significant risks of genetic agriculture is the possibility that genetically engineered species will mix with natural species. Scientists are not able to predict the results of such a mixing. For example, scientists have successfully engineered a new species of carp, a fish that is popular in many parts of the world. This new species contains a growth gene from another kind of fish, the rainbow trout. The new kind of carp grows twenty percent faster than ordinary carp. What does the future hold for such 'improved' species? Will they destroy all the other fish in the oceans? When only the engineered species are left, will **these** die out from some genetic weakness that scientists have not foreseen? Clearly, it is dangerous to play such games with nature.

3 Another major user of genetic engineering techniques is manufacturing industry. Genetic manufacturing could be more dangerous than genetic agriculture. In manufacturing, microorganisms are changed so that they will produce desired substances or perform desired functions. Because these creatures are too small to be seen without microscopes, and because they tend to reproduce rapidly, their potential for creating hazards is great. One of the greatest dangers of altered microorganisms is their tendency to undergo spontaneous mutations. When organisms mutate spontaneously, they change into different organisms without any outside influence. The changed organisms may be much more dangerous than the original, genetically altered **ones.** Some critics worry that mutating organisms could get out of control, spreading new, incurable diseases or destroying agricultural crops.

4 The area of greatest concern to the critics of genetic engineering is medical science, for genetic medicine would affect people directly by altering human genes. One of the fastest growing fields of medicine is transplant surgery, which can often extend the patient's lifespan and improve the quality of life. As a result, there is a large demand for replacement organs. However, relatively few such organs are available. Genetic engineering may provide some solutions to this problem. Genetic techniques will enable doctors to predict the kinds of diseases that a person is likely to experience later in life. Even more remarkably, genetic engineering will eventually enable scientists to create humanoids that could be used as a source of spare organs. These creatures may contain human hearts, kidneys, lungs, and other organs. However, the use of humanoids would present a completely new set of ethical problems to be discussed and resolved.

5 Another example of a genetic technique that may soon have implications for genetics is amniocentesis, a procedure for determining the sex of a fetus. In some societies, in which boys are prized more highly than girls, mothers who do not want to give birth to a girl occasionally use this technique to determine whether or not to have an abortion. With the help of genetic engineering, by changing the genes on a single chromosome, the sex of a baby could be changed while it is still in the womb. Again, however, this must be dealt with before such a procedure could be permitted.

6 In dealing with the ethical concerns of genetic engineering, another issue to consider is eugenics. It is concerned with using biotechnology to remove biologically undesirable characteristics to make genetic changes that will improve an organism or species. Soon, doctors will be able to give us a list of our genetic weaknesses. In other words, they will be able to tell us what genetic diseases we are most likely to get and how we will possibly die. Even before biotechnology provides us with treatments for these diseases, however, we will have ethical choices to make. Society will have to decide who is allowed to use personal genetic information and for which purposes **this information** may be used. Genetic information about individuals poses two important concerns. One is whether knowledge of the information is itself potentially hazardous to the individual; **the other** is whether institutions will misuse that knowledge to foster their own dominance and control. In the near future, employers may demand to know the genetic profiles of their workers. They may fire or refuse to hire people with certain genetic weaknesses. Schools may refuse to admit children whose genetic profiles indicate behavioral problems or learning disabilities.

7 In view of these ethical considerations, society should consider seriously whether science should be thinking about genetic engineering of human beings at all.

A. What do the following refer to?

1. these (para. 2) : _____
2. ones (para. 3) : _____
3. this information (para. 6) : _____
4. the other (para. 6) : the other _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. predicted (para. 2) (v.) : _____
2. problems; dangers (para. 3) (n.) : _____
3. changing (para. 4) (v.) : _____
4. a problem (para. 6) (n.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. One important success of medical researchers is to have found the genes that lead to almost six hundred genetic diseases .

T F 2. Genetic agriculture is more risky than genetic manufacturing since the new species produced may get out of control and destroy the already existing natural species.

T F 3. In the future, humanoids might be created to provide people with replacement organs.

T F 4. With the help of amniocentesis the sex of a baby could be changed while it is still unborn.

D. Answer the following questions.

1. Why could mutating organisms be more dangerous than original, genetically changed organisms?

   _____

   _____.

2. How does biotechnology help change an organism genetically so that it won't have any genetic weaknesses?

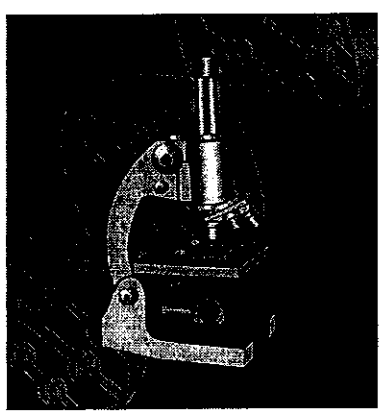
   _____

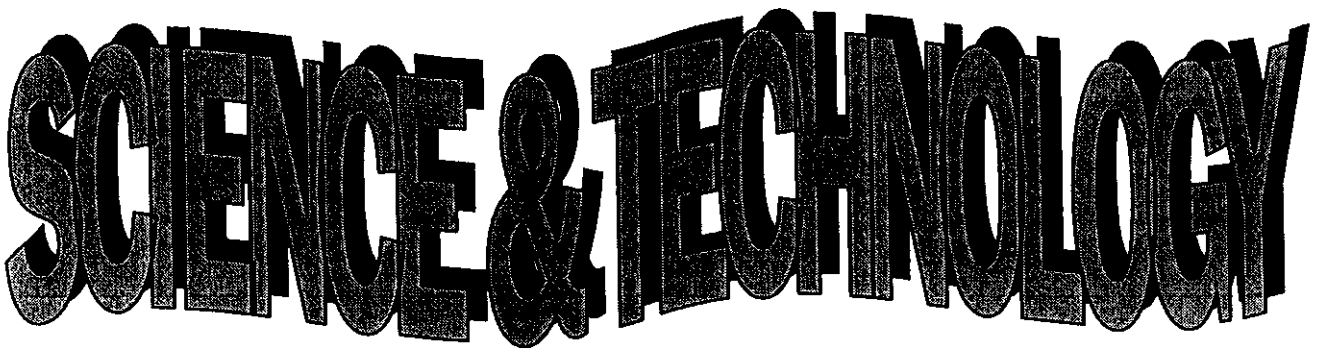
   _____.

3. How might employers misuse the genetic profiles of their workers?

   _____

   _____.




SCIENCE & TECHNOLOGY

122 THE INTERNET

1 When one considers all the information about the extensive use of the Internet, one would assume that youngsters all over the world were using it. However, this would be a **misconception**. It isn't as though these youngsters wouldn't want to, given the chance, but British junior schools have neither the time nor the money to offer their students this opportunity. **Most** lack the funds and teachers with enough technical **expertise** to be able to successfully install or operate an Internet system.

2 A specialist company called Research Machines (RM) develops and supplies information systems, software, and services to junior schools, colleges, and universities. It specializes in the British education system and offers some very comprehensive packages. RM sets a fixed annual fee, and this means that users have the advantage of spending a longer time on the Internet without continually having to worry about the cost.

3 Although schools are expected to use the Internet responsibly, some individuals do not do so. This can have **disastrous** results. Internet users communicate with one another by using telephone circuits, and, like RM, most Internet systems charge a standard fee with no time charges. **This** leads to heavy Internet users taking advantage of this standard fee and spending hours on the net. This jams local telephone circuits and may prevent ordinary bill-paying telephone users from making calls, even in emergencies.

4 Now, thanks to the Internet, anyone can offer such services; there is no advantage in owning the telephone lines. Worse, the Internet is already starting to embrace more traditional telephone services. Internet users jam telephone circuits and create **inconvenience** and possible danger to telephone users, and **they** also cost the telephone companies a great deal of money. The companies frequently have to replace and install expensive new circuits. This is a result of the fact that Internet users are continually overloading their systems.

5 The problem is that while it is costing the telephone companies money, it is quite legal. Telephone companies claim that Internet users are abusing **their networks** and that this is a war being fought on an international scale. Another international battle is approaching. This one is going to be on the kind of information that should be checked before it is transmitted over the Internet.

6 At an international conference in Salt Lake City, former British Prime Minister Margaret Thatcher warned that corrupt governments and evil individuals might **abuse** the Internet. She also expressed concern about the harm that is being caused to children who have **access** to offensive material on the Internet. This kind of material, unfortunately, brings forth social and psychological problems. RM, in the meantime, has restricted easy reach to any information it feels may be unsuitable, and it demands that news groups evaluate their programs for parts that may cause offense, especially to children.

7 Of 15,000 news groups, RM has banned around 7,000. This attitude is a far cry from the irresponsible attitude being demonstrated by a number of people on the open Internet. Of course, it is **inevitable** that there will be drawbacks to something as powerful as an international communications system. However, with RM, the benefits for young people will certainly be to their advantage. For example, additional knowledge of computers can enhance **their chances** of future employment. However, encouraging responsible use is the only way forward.

A. What do the following refer to?

1. Most (para. 1) : Most _____
2. This (para. 3) : The fact that _____
3. they (para. 4) : _____
4. their networks (para. 5) : the networks of _____
5. their chances (para. 7) : the chances of _____

B. Match the words in the left column with the meanings in the right column.

1. ____ misconception (para. 1)	a) trouble
2. ____ expertise (para. 1)	b) entry, admission
3. ____ disastrous (para. 3)	c) definite, unavoidable
4. ____ inconvenience (para. 4)	d) destructive, harmful
5. ____ abuse (para. 6)	e) skill, mastery
6. ____ access (para. 6)	f) misuse, take advantage of
7. ____ inevitable (para. 7)	g) wrong idea

C. Answer the following questions.

1. How does RM contribute to education in Britain?

_____

_____.

2. Why can it be difficult for ordinary phone users to make emergency phone calls?

_____

_____.

3. According to paragraph 5, what is going to cause an international problem in the future?

_____

_____.

4. How does RM protect children against offensive information on the net?

_____

_____.

123 THE HISTORY OF THE INTERNET

1 The Internet was created in the US in the 1960s as a tool to link university and government research centers via a nationwide network that would allow a wide variety of computers to exchange information and share resources. There were numerous engineering challenges, beginning with the design of a packet-switching network -- a system that could make computers communicate with each other without the need for a traditional central system. **Others** included the design of the machines, data exchange protocols, and software to run it. What eventually grew out of these efforts is a miraculous low-cost technology that is swiftly and dramatically changing the world. It is available to people at home, in schools and universities, and in public libraries and "cyber cafes."

2 The Internet is not owned or controlled by any organization, corporation, or nation. It connects people in 65 countries instantaneously through computers, fiber optics, satellites, and phone lines. It is changing cultural patterns, business practices, the consumer industry, and research and educational pursuits. It helps people keep up to date on world events, find a restaurant in a foreign city or a cheap flight to Paris, play games, and discuss everything from apples to zoology. It has gathered support for human rights in **suppressed nations,** saved the life of a child in Beijing, and helped a man in Iowa find a lost family member in Brazil.

3 Leonard Kleinrock invented the technology of the Internet in 1962 while he was a university student. The packet-switching technology he proposed was a dramatic improvement over the circuit-switched telephone network. Packet switching chops messages into packets, and sends these packets of data independently through the network as if they are electronic letters passing through an electronic post office.

4 In 1963, a man named J.C.R Licklider visualized a network that would connect machines and people worldwide. This network, which formed the foundation of the Internet, was made public in California in 1969.

5 Universities and research organizations were among the first to join the network in order to exchange information. Electronic mail was introduced in 1972 by Ray Tomlinson. More networks began to pop up in the 1980s. Commercial organizations, which fell outside the original charter, wanted to use the same packet-switching technologies, and the system came to be known as the Internet during this period. It had far exceeded its original purpose, and was providing the stimulus for a vast technological revolution that was just ahead.

6 Major innovations in software were necessary before the Internet could function as a global information utility. In 1989, Tim Berners-Lee, a scientist in Geneva, proposed a project that would provide information worldwide called the World Wide Web. Simple tools to retrieve information from the Web and communicate would be the focus of much activity in the next few years. In 1991, the University of Minnesota developed "Gopher," the first successful Internet document retrieval system. In the spring of 1993, a group of graduate students, led by 21-year-old Marc Andreessen, created a "browser" program called Mosaic and distributed it free. Netscape and then Microsoft followed with browsers that greatly simplified a computer user's ability to surf the Internet in search of information.

7 Today people can search thousands of databases and libraries worldwide in several languages, browse through hundreds of millions of documents, journals, books, and computer programs, and keep up to the minute with wire-service news, sports, and weather reports. An increasing number of people shop, bank, and pay bills on the Internet. Many invest in stocks and commodities online. It's a powerful symbol of society's expectations about the future -- fast-moving technology that adds convenience and efficiency to their lives.

8 Beyond convenience, as people consider the philosophical **ramifications** of the Internet, some view it as a tool of unity and democratization. In the 1960s, long before the Internet, futurist and author Sir Arthur C. Clarke predicted that by 2000 a vast electronic "global library" would be developed. Recently, a judge cited it as "the single most important advancement to freedom of speech." Marshall McLuhan coined the phrase "the global village" when he spoke of how radio and television had transformed the world in the course of the 20th century. In the 21st century, it seems the Internet is destined to have even more profound effects.

Mark the best choice.

1. The original purpose of developing the Internet was _____.

   a) to enable the sharing of information and resources of government and university research centers by a wide variety of computers
   b) to make it possible for computers all over the world to share information and resources
   c) to deal with the numerous challenges related to the design of a packet-switching network
   d) to create a system that would design machines and establish data exchange protocols

2. One of the important steps that had to be taken during the design of the Internet was the development of a system that would _____.

   a) connect phone lines throughout the world
   b) require the use of a circuit-switching telephone network
   c) dramatically improve the packet-switching technology
   d) enable contact between computers without the use of a traditional central system

3. "Others" (para. 1) probably refers to "Other _____."

   a) systems
   b) computers
   c) networks
   d) challenges

4. The phrase "suppressed nations" (para. 2) probably refers to nations where people are _____.

   a) prevented from enjoying their freedom
   b) constantly at war with other countries
   c) continuously fighting with disease
   d) content with their lives

5. It can be understood from paragraph 5 that _____.

   a) the Internet advanced much more than its creators had at first planned
   b) the name "Internet" was first used in the 1970s
   c) commercial organizations joined the Internet before others
   d) the increased number of new networks brought about the introduction of electronic mail

6. Paragraph 6 is mainly about _____.

   a) how the first successful Internet retrieval system, "Gopher," was developed
   b) how many scientists came together to develop a browser called Mosaic
   c) the development of new software which led to the globalization of the Internet
   d) the development and success of the World Wide Web project by a scientist in Geneva

7. "ramifications" (para. 8) probably means _____.

   a) reasons
   b) results
   c) solutions
   d) situations

124 REFLECTING ON LIGHT

1 Most of what we know comes to us through our ability to "see" with our eyes, our telescopes, and our microscopes, but how do we see? Sight is not something that reaches out from our eyes. Instead, it is the light that travels to our eyes. You see this page, for example, because light, reflecting from the sun or an electric light, travels from the paper to your eyes. Sometimes we see light as it comes from a direct source, such as the sun, fire, lightning, or a light bulb. The rest of the time, we see **it** as it is reflected off (sent back from) objects.

2 Light travels at high speeds. It must have been extremely **amazing**, or surprising, for scientists to realize that light actually "travels." It isn't just there. In the air, light travels at a speed of 186,000 miles per hour. It travels slightly faster in a vacuum, but, in other transparent materials such as water or diamonds, it travels more slowly. It takes light less than one minute to travel from earth to the moon and about 15 minutes to go from the earth to the sun.

3 In 1678, the Dutch scientist Christian Huygens was the first to suggest that light travels in waves. Since then, the work of the American Albert Einstein and the Scottish James Maxwell has shown that light actually consists of particles known as photons and travels in electromagnetic waves. Light seems to travel in straight lines. If you shine a flashlight in the dark, for example, the beam of light appears to be straight. Sound waves, on the other hand, travel in every direction. That is the reason why we can hear people on the other side of the wall but cannot see them.

4 In certain situations, light **diverges** from a straight path. In other words, it changes its direction. When it falls on an object, most of it is either **absorbed** (i.e., taken in) by the object itself or passes through. The remainder of the light is reflected. When light is reflected off a smooth surface, it changes direction in a regular way. If the surface is rough, light is reflected in many directions.

5 Certain silver compounds like silver bromide reflect almost all the light that falls on **them** and are, therefore, used for mirrors. The image that is reflected in a flat mirror is **identical to**— exactly the same as— the original object, but it is reversed. For instance, when you write the word BOOK on a piece of paper and hold it up against a mirror, its image is seen backwards. That is, the word appears as KOOB in the mirror. This can be explained by the fact that light on a flat surface changes direction.

6 When light passes from one transparent medium to another, it changes speed and direction. This process is called refraction. In water, the process of refraction explains the apparent shortening of a person's leg or the bending of a stick

7 Light is a form of energy that can be transferred into heat. You can prove this by using a magnifying glass to concentrate the sun's rays on a piece of paper and burn a hole in it. It is this light energy from the sun that warms the earth and enables living things to grow. Plants get light energy from the sun, while animals get **it** from the plants they eat.

A. What do the following refer to?

1. it (para. 1) : _____
2. them (para. 5) : _____
3. it (para. 7) : _____

B. Guess the meaning of the following words using the clues in the text and complete the sentences.

1. If something is "amazing" (para. 2), it means it is _____.
2. When light "diverges" (para. 4) from a straight path, it _____.
3. When something is "absorbed" (para. 4), it is _____.
4. If A is "identical to" (para. 5) B, it means A is _____ B.

C. Mark the following statements True (T) or False (F).

T F 1. We can only see light when it comes from a direct source such as the sun.

T F 2. The speed of light increases when it travels through transparent objects like glass or water.

T F 3. Before 1678, scientists were not aware of the fact that light travels in waves.

T F 4. Sound waves are different from light waves because they travel in every direction.

T F 5. Unlike a smooth surface, a rough surface does not reflect light.

D. Answer the following questions.

1. Why is the image of the word BOOK written on a piece of paper reversed and reflected as KOOB in a flat mirror?

   _____

   _____.

2. What happens to light during the process of refraction?

   _____

   _____.

3. What happens to light energy when you use a magnifying glass to concentrate the sun's rays on a piece of paper?

   _____

   _____.

125 TAKE A PICTURE THAT CAN FLY

1 Some people get revelations in the shower. Others solve puzzles in their dreams. Yousuke Yamada, a lead engineer for the Japanese office-equipment maker Ricoh Co. Ltd., gets his best ideas on Tokyo commuter trains. "I cannot create an idea at my desk," he says. "I like to walk around a crowded train, where nobody disturbs me."

2 Over the past three years, while his fellow commuters jostled for space or scanned the morning paper, Yamada, 55, devoted his four-hour daily commute to a higher cause—dreaming up the next great consumer gadget. In 1997, Ricoh president Masamitsu Sakurai commissioned Yamada to create a device that would help push his company, which had built its fortunes on heavy office machines, into the forefront of digital technology. The trouble was Sakurai didn't really know what he wanted. "The idea was to develop a product that uses all our senses," says Yamada. "There was no paper, no specifications. Just his wish, his hope."

3 After reviewing the most promising new technologies—and meditating endlessly on the train—Yamada felt he was prepared to design a digital camera like no other. The fruit of his cogitations is about the size of a videocassette and weighs in at just over a pound. But the genius of the RDC-i700 camera is revealed as its top opens up to display a bright, 3.5-inch touch-sensitive screen, which is a window on the World Wide Web that surfs the Internet, records voice memos, accepts written notes and drawings in 16 different colors, and receives and sends e-mail.

4 In many respects, such features are not new this year. What makes the i700 an innovation is its wireless Web-publishing capabilities. Thanks to its custom software, users of the i700 can correlate images with specific Web pages and then transmit them to a live website of their choice. Not only can they send photos from the road, they can also automatically display them exactly where they want them to appear on their website.

5 "We created the first camera that allows HTML coding, which can be sent to a Web page and instantly published," says the camera's US marketing manager, Jeff Lengyel. After the photographer takes pictures, which are of a very high quality, he selects the photos he wants to upload to his personal website. Users in Japan—where the product was released in September with a price of about $1,500—can transmit images with a tiny wireless modem that slides into a slot on the camera. Ricoh expects similar wireless cards to be available in time for the i700's US release early next year.

Perfect Picture

6 '*Time*' magazine also tested the device in order to see how efficient it was, and the engineers, were able to upload a low-quality image to a website in about a minute simply by selecting the desired image on-screen, then hitting a few more buttons to send it through the airwaves. Although they were skeptical at first about browsing the Web on a screen that is no bigger than the size of a drink coaster, they were pleasantly surprised at how easy it was both to enter Web addresses and write e-mail with the slim gray plastic stylus included with the camera.

7 "The RDC-i700 is an innovative device," notes Christopher Chute, analyst at the high-tech market-research firm International Data Corp. "For the first time, a camera manufacturer has attempted to offer an all-in-one solution for digital-image capture, transmission, display, and storage." Such an invention opens up all sorts of possibilities. Cross-country travelers could wirelessly update their home pages on the road with pictures from their trip. Guests at a family reunion or wedding could post images online just minutes after taking them, so everyone who couldn't attend could see the action as it unfolded. Couples who are looking for a new place to move to could split their house or apartment hunting chores and keep each other up to date on their efforts: If you find something you like, take a few pictures and let your spouse log on at the office or at home to see what you've found.

8 Because of the i700's relatively high price, Ricoh expects its first US customers to be business users, such as real-estate agents who make Web pages for new listings or news organizations that post photos of exciting stories from the field. In Japan, the government-contracted information service Hokuriku Kensetsu Kosaikai uses the cameras to collect pictures from scenes of natural disasters to help repair workers and rescue teams prepare for the task ahead of them. "We used to use a PC, but not all the workers at a disaster scene are familiar with computers, so the i700 is very useful for us." says the service's manager, Hirokazu Kimura.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. discoveries (para. 1) (n.) : _____
2. a regular journey between home and work (para. 2) (n.) : _____
3. chose formally someone to perform a special task (para. 2) (v.) : _____
4. showing signs that it's going to be successful (para. 3) (adj.) : _____
5. connect two or more things (para. 4) (v.) : _____
6. renew (para. 7) (v.) : _____
7. developed or continued (para. 7) (v.) : _____

B. Mark the following statements True (T) or False (F).

T F 1. The gadget which Y. Yamada devised was similar to what Mr. Sakurai had in mind.

T F 2. The RDC-i700 is no bigger than a videocassette, and its screen is not seen when it's closed.

T F 3. The RDC-i700 is an innovative device because it can record voice memos.

T F 4. It can be inferred from the text that the i700 isn't available in the US yet.

T F 5. There are other all-in-one devices that can capture, transmit, display, and store images, but they are not as good as the i700.

T F 6. In Japan, the use of the i700 has eased the work of computer-illiterate repair workers.

C. Fill in each gap using the information in the text.

* Ricoh Co. Ltd. is a Japanese company that produces (1)_____. However, it's planning to appear in the market of (2)_____.
* By using the i700, a person can send (3)_____ of the place he is in and show them on whichever (4)_____ he likes.
* The i700 is capable of taking very (5)_____ pictures.
* The users of the i700 write e-mail by using the (6)_____ that is provided along with the camera.
* It can be inferred from the text that the prospective buyers of the i700 in the US will be business people who wouldn't mind its (7)_____ very much.

126 WHAT THE FUTURE HOLDS

1 When we look back at the fantastic spectacle of scientific progress over the past 3,000 years, it may seem as if nature has yielded nearly all of its mysteries to the unstoppable march of the human intellect.

2 Our world, which only 500 years ago seemed to be the center of the cosmos, has now assumed **its** right place in the solar system—and the solar system has found its proper place within the universe. The planet has been examined from its core to the outermost parts of the atmosphere. The fundamental principles of the physical world have become increasingly clear as scientists are able to study black holes billions of miles away, crack atoms and harness their energy, and create synthetic materials that improve on nature's inventory.

3 A great number of living things have been categorized, but not completely enumerated. The chemistry of plants and animals has been observed, exploited, and even rearranged. One disease after another has succumbed to medical science, and researchers are on the verge of extending human life beyond a century. Yet, for every solution, there has been another puzzle; for every answer, another question.

4 We can track some cellular processes down to the motion of individual electrons. Yet, there is still a lot to learn about the molecular details of infection, the cellular anarchy called cancer, and the complexities of the immune system. We have found ways of altering the genetic contents of plants and animals, including humans, without undesirable side effects. The process of aging is still in many respects mysterious, and the upper limit of the human life span remains unknown. The amazing complexity of the brain is only beginning to become apparent. We do not know how life arose on this particular world, or whether **it** might have appeared elsewhere in the universe in some similar—or very different—form.

5 We can control energy and matter. Yet, we don't really know what gravity is, or what mysterious "dark matter" fills 90 percent of the universe. There are still basic processes to be detected, and new conditions of matter and energy to be observed. Many phenomena that we once thought to comprise incomprehensible chaos are turning out to reflect a perfect hidden order at the heart of nature.

6 The structure of the center of the earth is still uncertain, and many fundamental properties of the surface are not much better known. For example, we can predict the behavior of an electron down to several decimal places, but often we can't predict a snowstorm or tornado even hours in advance. The complex interactions of land, oceans, and atmosphere that create the planet's climate are yielding only slowly to science. As a result, humanity still has no conclusive way of knowing just what it is doing to its one and only home world.

7 In the field of chemistry, no more than a tiny fraction of possible chemical combinations has been examined, and the advent of new materials with extraordinary properties is certain. So far, we have no economically feasible substitute for fossil fuels, even though presumably **one** must be found within only a few decades.

8 In sum, the 21st century will be as full of grand challenges to the mind as any that came before. In fact, if the history we have viewed here is a dependable guide, there will be no end to nature's puzzles. Nor any end to the human will to solve them.

A. Mark the best choice.

1. Which of the following best paraphrases the first paragraph?

   a) It seems that the scientific study of nature's mysteries started 3,000 years ago.
   b) Over the past 3,000 years, science, which represents human intellect, has been able to explain almost all the mysteries of nature.
   c) Human beings have been walking for 3,000 years, and no one has been able to stop them yet.
   d) Despite 3,000 years' scientific progress, human intellect has yielded to the mysteries of nature.

B. What do the following refer to?

1. its (para.2) : _____
2. it (para. 4) : _____
3. one (para. 7) : _____

C. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. form or be part of (para. 5) (v.) : _____
2. arrival (para. 7) (n.) : _____

D. Mark the following statements True (T) or False (F).

T F 1. Scientists still don't know the oldest age that human beings can attain.

T F 2. Owing to scientific studies, there are fast improvements regarding predictions about the world's climate.

T F 3. So far, scientists have examined a great majority of possible chemical combinations.

T F 4. The more mysteries the earth presents to humans, the more continuous their efforts will be to solve them.

E. Fill in each gap using the information in the text.

What science has achieved so far	What science has still got to do
* One of the advances that have made the (1)_____ more clear is cracking atoms and being able to control (2)_____. * One breakthrough in medical science is changing (3)_____ as well as humans, while eliminating the negative side effects of such procedures.	* Not all (4) _____ _____ have been enumerated yet, although most of them have been categorized. * Regarding medical science, what we have found out so far is not enough to explain (5)_____ or (6)_____. Nor is it enough to explain the details of cancer. * Despite having control over energy and matter, we still don't know much about (7)_____, which makes up most of the universe.

127 ARTIFICIAL INTELLIGENCE

1 Signs of plenty of thinking on artificial intelligence can be found in ancient Egypt, but it wasn't until 1941, when the electronic computer was developed, that technology could finally create machine intelligence. The term artificial intelligence was first used in 1956, and since **then** artificial intelligence has expanded because of the theories and principles developed by its **dedicated** researchers.

2 With the invention of the electronic computer in 1941, there was a big revolution in every aspect of storage and processing of information. **This invention** was developed in both the US and Germany. The first computers required large, separate, and air-conditioned rooms. They were a programmer's nightmare as it was difficult to even get a program running among thousands of wires. In 1949, the stored-program computer made the job of entering a program easier. The developments in computer science prepared the ground for artificial intelligence.

3 Although the computer provided the technology necessary for Artificial Intelligence (AI), the link between human intelligence and machines was observed with the "feedback theory" of Norbert Weiner. The most familiar example of the feedback theory is the thermostat. It controls the temperature of an environment by first measuring the actual temperature of the house. Then it compares this to the desired temperature and reacts to the situation by turning the heat up or down. Weiner maintained that all intelligent behavior was the result of feedback mechanisms. His theory suggested that machines could start the function of mechanisms.

4 In 1956, John McCarthy, regarded as the father of AI, organized a conference in New Hampshire to draw the attention of others interested in machine intelligence to the topic. The Dartmouth conference brought the founders of AI together, and **it** also served as a preparation for the future of AI research.

5 Seven years after the conference, AI began to speed up. First, centers for AI research at Carnegie- Mellon and MIT began functioning. Further research was done on creating systems that could efficiently solve problems and on making systems that could learn by themselves.

6 In 1957, the first version of a new program, the General Problem Solver (GSPS), was tested. It could solve common-sense problems to a great **extent**. While more programs were being produced, McCarthy was busy developing a major breakthrough in AI research. In 1958, he announced his new development: the LISP language, which is still being used today. LISP stands for LIST Processing, and was soon adopted as the language of choice among most AI developers. Many programs such as SHRDLU, STUDENT, and SIR were developed in the 1970s. During the 1980s, AI was moving at a faster pace and further into the corporate sector. In 1986, US sales of AI-related hardware and software **surged** to $425 million. Companies such as Digital Electronics, DuPont, General Motors and Boeing relied heavily on these systems.

7 The **impact** of AI in computer technology was strongly felt. An outstanding example was the development of PROLOGUE language by Minsky and Marr. In the late 1980s, a new technology called "the fuzzy logic" was developed in Japan. **It** had the unique ability to make decisions under certain conditions.

8 The military put AI-based hardware to the test of war during Desert Storm. AI-based technologies were used in missile systems. AI has also made the transition to the home. Applications for the Apple Macintosh and IBM-compatible computers, such as voice and character recognition, have recently become available. With the growing **demand** for AI-related technology, new advancements are becoming available. Inevitably, artificial intelligence has influenced and will continue to influence our lives. Steven Spielberg's latest movie, AI, underlines the importance of artificial intelligence as well.

A. What do the following refer to?

1. then (para. 1) : _____
2. This invention (para. 2) : the invention of _____
3. it (para. 4) : _____
4. It (para. 7) : _____

B. Match the words in the left column with their synonyms in the right column.

A		B
1. dedicated (para. 1)	_____	a. hardworking
2. extent (para. 6)	_____	b. rose, increased
3. surged (para. 6)	_____	c. need
4. impact (para. 7)	_____	d. effect
5. demand (para. 8)	_____	e. number

C. Mark the following statements True (T) or False (F).

T F 1. Ancient Egyptians were interested in AI.

T F 2. Programmers found it very difficult to work with stored-program computers.

T F 3. After the Dartmouth conference, two AI research centers started to operate.

T F 4. AI developers still use McCarthy's LISP language as the language of choice.

D. Answer the following questions.

1. Why were the first computers impractical to use?

_____

_____.

2. Which example can be given to explain Norbert Weiner's feedback theory?

_____

_____.

3. What are the recent developments that are seen in IBM- compatible computers?

_____

_____.

128 STEPHEN HAWKING: CHANGING OUR VIEW OF THE UNIVERSE

1 Scientists have long struggled to find the connection between two branches of physics. One of these branches deals with the forces that rule the world of atoms and subatomic particles. The other branch deals with gravity and its role in the universe of stars and galaxies. Physicist Stephen Hawking has set himself the task of discovering the connection. Leading theoretical physicists agree that if anyone can discover a unifying principle, it will certainly be this extraordinary scientist.

2 Dr. Hawking's goal, as he describes it, is simple. "It is complete understanding of the universe, why it is as it is and why it exists at all." In order to achieve such an understanding, Dr. Hawking tries to "quantize gravity." Quantizing gravity means combining the laws of gravity and the laws of quantum mechanics into a single universal law. Dr. Hawking and other theoretical physicists believe that with **such a law,** the behavior of all matter in the universe, and the origin of the universe as well, could be explained.

3 Dr. Hawking's search for a unifying theory has led him to study one of science's greatest mysteries: black holes. A black hole is an incredibly dense region in space whose gravitational pull attracts all nearby objects, virtually "swallowing them up." A black hole is formed when a star uses up most of the nuclear fuel that has kept it burning. During most of its life as an ordinary star, its nuclear explosions exert enough outward force to balance the powerful inward force of gravity. But when the star's fuel is used up, the outward force comes to an end. Gravity takes over, and the star collapses into a tiny core of extremely dense material, possibly no bigger than the period at the end of this sentence.

4 Hawking has already proved that a black hole can emit a stream of electrons. Before this discovery, scientists believed that nothing, not even light, could escape from a black hole. So scientists have hailed Hawking's discovery as "one of the most beautiful in the history of physics."

5 Exploring the mysteries of the universe is no ordinary feat. And Stephen Hawking is no ordinary man. Respected as one of the most brilliant physicists in the world, Hawking is also considered one of the most remarkable as he suffers from a serious disease of the nervous system that has confined him to a wheelchair, barely able to move or to speak. Although Dr. Hawking gives numerous presentations and publishes countless articles and papers, his speeches must be translated and his essays written down by other hands.

6 Hawking became ill during his first years at Cambridge University in England. The disease progressed quickly and caused the young scholar to become depressed. He even considered giving up his research, as he thought he would not live long enough to receive his Ph.D. But in 1965, Hawking's life changed. He married Jane Wilde, a fellow student and language scholar. Suddenly life took on new meaning. "That was the turning point," he says. "It made me determined to live, and it was about that time that I began making professional progress." Hawking's health and spirits improved. His studies continued and reached new heights of brilliance. Today, Dr. Hawking is professor of mathematics at Cambridge University and a husband and father who leads a full and active life.

7 Dr. Hawking believes that his illness has benefited his work. It has given him more time to think about physics. Therefore, although his body is failing him, **his mind is free to soar.** Considered to be one of the most brilliant physicists of all time, Dr. Hawking has taken some of the small steps that lead science to discovery and understanding. With time to think over the questions of the universe, it is quite likely that Stephen Hawking will be successful in uniting the world of the tiniest particles with the world of stars and galaxies.

Mark the best choice.

1. The chief theoretical physicists of the world believe that _____.

   a) Hawking is the only person who has the potential to unite the laws of gravity with the forces governing the world of atoms
   b) in order to discover the relation between the two branches of physics, they must unite and work together
   c) Hawking's discovery of the connection between the two branches of physics makes him a great physicist
   d) the task of discovering a unifying principle will make Hawking an extraordinary scientist

2. "such a law" (para. 2) refers to a law which will do all of the following EXCEPT_____.

   a) quantize gravity
   b) unite the laws of gravity and those of quantum mechanics
   c) explain the behavior of all matter in the universe
   d) initiate research on why black holes swallow objects

3. Which of the following is **TRUE** according to the text?

   a) When a star's nuclear fuel is mostly consumed, a black hole is formed.
   b) Stephen Hawking has proved that black holes swallow up everything, even electrons.
   c) When the life of a star comes to an end, so does its inward force of gravity.
   d) The outward force of an ordinary star is more powerful than its inward force.

4. Which of the following is the main idea of paragraph 5?

   a) Dr. Hawking is regarded as an extraordinary man because of his efforts to quantize gravity.
   b) Dr. Hawking is a brilliant physicist despite his serious disease.
   c) Dr. Hawking cannot move or speak because of his serious disease of the nervous system.
   d) Dr. Hawking's speeches must be translated as he is unable to speak.

5. After Stephen Hawking became ill, _____.

   a) he gave up his studies and research for a while
   b) he became a language scholar and his life changed
   c) he went to Cambridge University and worked toward his Ph.D.
   d) he got married and became even more successful in his studies

6. "his mind is free to soar" (para. 7) probably means _____.

   a) he often changes his mind about the discoveries he makes
   b) his mind is always open to questions about his illness
   c) his mind is open to professional development
   d) because of his illness, his mind is gradually losing its capacity

COMMUNICATION &MEDIA

129 CULTURE CLASH

1 Ideas about polite behavior vary from one culture to another and it is easy to cause offence or feel offended if you don't know what other cultures expect or what civility means to them. For this reason, all over the world there are cross-cultural workshops which help business people avoid culture clash and misunderstandings when they deal with people coming from different cultures.

2 Some societies, such as America and Australia, are mobile and very open. People there change jobs and move house quite frequently, so they need to get to know people quickly. As a result, they cannot have very long and deep relationships. In fact, their relationships often last only a short time. Therefore, it is normal for them to have friendly conversations with people that they have just met, and to talk about things that other cultures would regard as private.

3 At the other extreme are more crowded and less mobile societies in which long-term relationships are more important. A Malaysian or Mexican businessperson, for example, will want to get to know you very well before he or she wants to do business with you. But when you get to know each other, the relationship becomes much deeper than **it** would in a mobile society.

4 To Americans, both Europeans and Asians seem cool and formal at first. However, from the perspective of a person from a less mobile society, it is no fun spending several hours next to a stranger who wants to tell you all about his or her life and asks you all sorts of embarrassing questions that you don't want to answer.

5 In addition to mobile and less mobile societies, there are societies that have 'universalist' cultures. These societies have a strong respect for rules, and treat every person and situation in basically the same way. 'Particularist' societies, on the other hand, also have rules, but **they** are less important than the society's unwritten ideas about what is right or wrong for a particular situation or a particular person. Therefore, the formal rules are bent to fit the needs of the situation or the importance of the person.

A. What do the following refer to?

1. it (para. 3) : _____
2. they (para. 5) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. be different (para. 1) (v.) : _____
2. politeness (para. 1) (n.) : _____
3. a sharp disagreement; conflict (para. 1) (n.) : _____

C. Fill in each gap using the information in the text.

* Both the Americans and Australians are (1a)_____ and (1b)_____ and their relationships (2)_____ because they don't have much time to get to know people well. For these people, it is natural to start a friendly conversation on subjects which are considered to be (3a)_____ by (3b)_____.

* Malaysian or Mexican business people, who come from (4a)_____ and (4b)_____ societies, give importance to (5)_____. Therefore, they need to get to know people very well before starting to do business.

* 'Universalist' societies never (6)_____ for which they have a strong respect. On the other hand, in 'particularist' societies, rules are flexible, depending on the (7)_____ or the (8)_____.

130 THE HOPE OF ESPERANTO

1 In 1887, Ludovic Zamenhof, a multilingual Polish oculist, published a book introducing a new language under the pseudonym Dr. Esperanto, meaning "one who hopes." Zamenhof hoped his invented tongue would become the world's second language. Although that hope is still unrealized, nearly 6,000 zealous Esperantists – the largest gathering ever – from as far away as Japan and Brazil were in Warsaw in 1987 to honor Zamenhof on the occasion of the 100th birthday of his language. They **did so** with a variety of events, all in Esperanto, plus a visit to Zamenhof's hometown of Bialystok.

2 Many people assume that Esperanto is a dying language, or a verbal experiment that has simply not worked out. In fact, Esperantists can be found all around the world. Estimates of their total number vary widely, from 1 million to 8 million or more. Marjorie Duncan, 65, a retired Australian school teacher, believes the movement needs more young people. However, she says, they would "rather drive cars or go surfing."

3 It seems that Esperanto is not a complicated language. It has only 16 easily memorized rules of grammar – no exceptions – and a basic vocabulary built from mostly Indo-European roots. Experts claim that virtually anyone can learn Esperanto in 100 hours or less. Accents always fall on the last syllable of a word. Nevertheless, for some, numerous suffixes and prefixes may complicate matters.

4 The use of Esperanto probably reached its peak in the 1920s, when idealists welcomed it as one small step toward peace. Some intellectuals viewed it as a solution to the language problem, which they felt contributed to political misunderstandings. In some British schools, youngsters could study Esperanto. However, interest died down after World War II, partly because governments did not support the language, and partly because English was fast becoming the *lingua franca* of business and travel. Esperantists have urged the United Nations to adopt their language, but the organization already has its hands full with six official **ones**.

5 Humphrey Tonkin, president of the Rotterdam-based Universal Esperanto Association, says Esperanto is popular in lands whose languages do not travel well, such as Iran, Brazil, the Netherlands and the Scandinavian countries. A large number of Esperantists are found in Japan, where the language has sometimes been used for discussions by scientists who speak different languages. China uses Esperanto to facilitate communication between speakers of its northern and southern dialects and supports an active publishing program: *From People's China*, a monthly magazine in Esperanto, is read worldwide. Radio Beijing's Esperanto program is the most popular program in Esperanto in the world. Many books and masterpieces of literature have been translated into Esperanto, including the Koran and some of Shakespeare's plays. Nevertheless, Mary Davies, an Esperantist who runs a hotel in Heysham, England, complains, "We don't have any light reading."

6 When they travel, Esperantists wear lapel pins shaped like green stars that signal **them** as Esperanto speakers, in the hope of meeting fellow Esperanto speakers. They also call up comrades-in-conversation and exchange cassette tapes by mail.

A. What do the following refer to?

1. ones (para. 4) : _____
2. them (para. 6) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. enthusiastic (para. 1) (adj.) : _____
2. make possible or easier (para. 5) (v.) : _____

C. Answer the following questions.

1. In paragraph 2, what does the fact that there are a lot of Esperantists all around the world show?

   _____

   _____.

2. Write **one** support that the writer uses to show that Esperanto is a simple language.

   _____

   _____.

3. Why was Esperanto most popular in the 1920s?

   _____

   _____.

4. How did the use of English as the *lingua franca* of business and travel affect Esperanto?

   _____

   _____.

5. Why is Esperanto popular in Iran, Brazil, the Netherlands and the Scandinavian countries?

   _____

   _____.

D. Mark the best choice.

1. 'Did so' (para. 1) means _____.

   a) organized a variety of events, all in Esperanto
   b) gathered in Warsaw, coming from countries as far away as Japan and Brazil
   c) honored Zamenhof on the occasion of the 100th birthday of his language
   d) paid a visit to Zamenhof's hometown of Bialystok

2. Which of the following can be inferred from the text?

   a) Esperanto is popular among many young people.
   b) Esperanto might soon become the world's second language.
   c) People find it difficult to read literature books in Esperanto.
   d) Esperanto has had the greatest impact in China.

131 GLOBAL TV

1 A global television channel which will be liked by the entire world population is possible, according to research from a German institute. The author of the research and chief executive officer of the Mölln-based Sample Institut, Dr Helmut Jung, says that in order to make **it** work, the tastes of people in various countries need to be taken into consideration.

2 A possible global television channel is an ideal, yet, in practice, people in different countries have different program preferences. In the former USSR, 87% of the people who took part in the research wanted to see more full-length films, compared with a global average of 60%. In the Middle East, 81% of the people wanted more home-produced news, as did 79% in Asia. Only about half the respondents from Western Europe, North America and Japan felt they needed more domestically produced news.

3 In places where programming is left to television controllers instead of political or religious officials, television audiences are generally happy. Jung identified regions where many people were unhappy with programming schedules, including Central Europe, the former USSR and Latin America – all having state-run television. In regions such as Western Europe and North America, which have independent programming, audiences were happy.

4 Despite his confidence that global television will eventually arrive, Jung thinks there is a more realistic alternative for the near future: "Multicultural Regional TV" or MRTV. Speaking recently in New York, Jung said, "I'm convinced that the concept of global television is basically promising and that the process of globalization will continue and will first happen in the area of media and telecommunications. However, I'm also convinced that the idea of global television will be restricted to a limited number of channels and to specific types of programs. There will be more options in the area of regional television within the next few years."

5 Jung also said that global television's time had not come yet. It would have to omit certain programs due to unpopularity in certain regions **which** other people might want to see. Viewers still prefer home-produced news, and cultural differences remain. For example, Asian audiences look for education, while Latin Americans and Europeans generally prefer non-violent programs.

6 Jung's research has been supported by surveys which revealed that European channels such as Eurosport **tempted** more people to watch television. The presence of international channels, for example, increased the average number of hours of television watched by people in Austria, Germany and Switzerland by 15% and in southern Europe by 3%.

7 The implications of the globalization of television will be seen in the future. It is certain to strengthen the position of English as the top language for media in the world, and will weaken the status of the languages of economically disadvantaged cultures. It seems that, despite increasing internationalism, national differences will remain.

A. What do the following refer to?

1. it (para. 1) : _____
2. which (para. 5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. According to research, people in the former USSR thought that the number of films shown on their national television stations was sufficient.

T F 2. Some Japanese viewers felt that they didn't have enough locally produced news programs.

T F 3. Interest in watching TV has increased in Europe due to the existence of international channels.

T F 4. With the arrival of global TV, minority languages will become more internationally accepted.

C. Mark the best choice.

1. 'tempted' (para. 6) probably means _____.

a) demanded b) spoilt c) attracted d) interacted

D. Answer the following questions.

1. According to Jung's survey, why are the TV audiences in Central Europe unhappy?

_____

_____.

2. What disadvantage of global TV does Helmut Jung mention in paragraph 4?

_____

_____.

132 LANGUAGE: IS IT ALWAYS SPOKEN?

1 Most of us know a little about how babies learn to talk. From the time infants are born, they hear language because their parents talk to them all the time. Between the ages of seven and ten months, most infants begin to make sounds. They repeat the same sounds such as "dadada" and "bababa" over and over again, which is called babbling. When babies babble, they are practicing their language. Soon, the sound "dadada" may become "daddy," and "bababa" may become "bottle".

2 What happens, however, to children who cannot hear? How do deaf children learn to communicate? Recently, doctors have learned that deaf babies babble with their hands. Laura Ann Pettito, a psychologist at McGill University in Montreal, Canada, has studied how children learn language. She observed three hearing infants and two deaf infants. The three hearing infants had deaf mothers and fathers who used American Sign Language (ASL) to communicate with each other and with their babies. Dr. Pettito studied the babies three times: at 10, 12, and 14 months. During this time, children really begin to acquire their language skills.

3 After watching and videotaping the children for several hundred hours, the psychologist and her assistants made many important observations. For example, they saw that the hearing children made many different, varied motions with their hands. However, there appeared to be no pattern to these motions. The deaf babies also made many different movements with their hands, but these movements were unchanging and deliberate. The deaf babies seemed to make the same hand movements over and over again as if they wanted to convey a message. During the period in which the experiment was carried out, the deaf babies' hand motions started to resemble some of the basic hand-shapes used in ASL.

4 Hearing infants start first with simple syllable babbling (dadada), then put more syllables together to sound like real sentences and questions. Apparently, deaf babies follow this same pattern, too. First, they repeat simple hand-shapes. Next, they form some simple hand signs (words) and use these movements together to resemble ASL sentences.

5 Linguists—people who study language—believe that our ability for language is innate. In other words, humans are born with the capacity for language. It does not matter if we are physically able to speak or not as language can be expressed in many different ways—by speech or by sign. Dr. Petitto believes this theory and wants to prove it. She plans to study hearing children who have one deaf parent and one hearing parent. Dr. Petitto wants to see what happens when babies have the opportunity to learn both sign language and speech. Does the human brain prefer speech? Some of these studies of hearing babies who have one deaf parent and one hearing parent show that the babies babble equally with their hands and their voices. They also produce their first words, both spoken and signed, at about the same time.

6 The capacity for language is uniquely human. More studies in the future may prove that the sign system of the deaf is the physical equivalent of speech. If so, the old theory that only the spoken word is language will have to be changed. The whole concept of human communication will have a very new and different meaning.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. develop, form (para. 2) (v.) : _____
2. intentional, purposeful (para. 3) (adj.) : _____
3. something that has the same function as something else (para. 6) (n.) : _____

B. Fill in each gap using the information in the text.

1. Babbling is an activity in which babies _____; e.g. "dadada" and "bababa".
2. Babies use babbling in order to _____.
3. Dr. Pettito studied the babies over a period of _____ months.
4. Dr. Pettito and her assistants observed that the hand motions of the hearing children lacked _____.
5. According to Dr. Pettito, _____ are two of the different means by which humans can express language.
6. According to some studies, hearing babies with one deaf parent and one hearing parent use both _____ while babbling.

C. Answer the following questions.

1. What three stages do deaf babies go through when they learn to make sentences by singing?

   a) _____.

   b) _____.

   c) _____.

2. Write the main difference between Dr. Pettito's previous study and the one she is planning to carry out.

   _____

   _____.

133 MIXED MESSAGES ACROSS CULTURES

1 When people communicate with each other, there is always the possibility of people's not understanding or misunderstanding each other. The danger of misinterpretation is greatest, of course, among speakers who actually speak different native tongues, or come from different cultural backgrounds. The reason for this is that cultural differences lead to different assumptions about natural and obvious ways to be polite.

2 Anthropologist Thomas Kochman gives the example of a white female office worker who appeared with a bandaged arm and felt ignored because her black colleague didn't say or ask anything about it. The white worker assumed that her silent colleague didn't notice or didn't care. However, the co-worker was not paying attention on purpose, thinking that she might not want to talk about it. He let her decide whether or not to mention it: showing politeness by not **imposing**. Kochman says, based on his research, that these differences reflect recognizable black and white styles.

3 In another example, an American woman visiting England was repeatedly offended when the British ignored her in situations in which she thought they should have paid attention. For example, she was sitting at a big table in a railway-station cafeteria. A couple began to settle into the opposite seat at the other end of the table. They unloaded their luggage; they laid their coats on the seat; the man asked what the woman would like to eat and went off to get it; she sat at the table facing the American. Throughout all this, they showed no sign of having noticed that someone was already sitting at the same table. When the British woman lit up a cigarette, the American had a reason to reflect her anger. She began looking around for another table to move to. Of course there was none; that's why the British couple had sat at her table in the first place. The smoker immediately put out her cigarette and apologized. This showed that she had noticed that someone else was sitting there, and that she did not intend to disturb her.

4 To the American, politeness requires talk between strangers who are forced to share a table in a cafeteria, even if it's only a 'Do you mind if I sit down?' or a conventional 'Is anyone sitting here?' although it's obvious no one is. The omission of such talk seemed to her like dreadful rudeness. The American couldn't understand that another system of politeness was at work. By not noticing her presence and not disturbing her, the British couple thought they were showing politeness. While the American expected a show of involvement, they were showing politeness by not imposing.

5 In the case of an American man who had lived for years in Japan, there was a similar politeness ethic. He lived, as many Japanese do, in extremely close quarters — a tiny room

separated from neighboring rooms by walls. In order to preserve privacy in this most unprivate situation, his Japanese neighbors simply acted as if no one else lived there. They never showed signs of having overheard conversations, and if, while walking down the corridor, they caught a neighbor with the door open, they walked ahead without looking around or showing any sign of noticing anybody around. The American in the example admitted that when a next-door neighbor passed within a few feet without noticing his presence, he felt **insulted**, like many Americans did. Later, however, he realized that the intention was not rudeness by omitting to show involvement, but politeness by not imposing.

6 Communication plays an important role in all sorts of relations and the fate of the world depends on cross-cultural communication. Nations must reach agreements, and agreements are made by individual representatives of nations who sit down and talk to each other. Despite the fact that conversations don't usually produce the communication we need, we continue to talk to each other. In the same way, nations keep trying to **negotiate** and reach an agreement although it's not an easy task. Woody Allen knows why, and says, in his film Annie Hall, which ends with a joke:

7 "A man goes to a psychiatrist and says, 'Doc, my brother's crazy. He thinks he's a chicken.' And the doctor says, 'Well, why don't you tell him to see me?' and the man says, 'I would, but I need the eggs." It seems that's how most of us feel about relationships. Perfect communication is something almost impossible. Yet, we still keep hoping and trying because we need the "eggs" of involvement and interaction.

A. Mark the best choice.

1. 'imposing' (para. 2)probably means:
   a) putting pressure on someone to do something
   b) looking forward to seeing someone
   c) being rebellious against someone
   d) making an attempt to understand someone
2. 'insulted' (para. 5) probably means:
   a) restricted
   b) overjoyed
   c) devoted
   d) disrespected
3. 'negotiate' (para. 6) probably means:
   a) identify
   b) endure
   c) discuss
   d) contradict

B. Mark the choice that best completes the sentence.

1. In the example that Thomas Kochman gives, the white office worker was resentful because _____.

   a) she didn't like the way her colleague commented on her bandaged arm
   b) she misinterpreted her friend's silence, which, in his culture, reflected his politeness
   c) her black fellow worker didn't think this was something worth mentioning
   d) she assumed that her black fellow worker couldn't decide whether or not to mention it

2. The example of the American woman who had to share a table with a British couple indicates that the British _____.

   a) ignore Americans because they're aware of the cultural differences between the two nations
   b) do not welcome foreigners and are unwilling to share a table with them unless they have to
   c) might prefer not to disturb a stranger by showing no sign of having noticed that person
   d) are prejudiced against foreigners, and thus don't bother to put out their cigarettes even when they disturb them

3. It can be understood from the case of the American who had lived in Japan for years that _____.

   a) the Japanese are ashamed of living in such small places in which neighbors overhear one another's conversations
   b) the Japanese are self-centered people who sometimes pass by without even noticing the people around
   c) in Japanese houses, where it's very difficult to keep one's privacy, people intentionally show no involvement with their neighbors
   d) it is obvious to an American why two Japanese neighbors avoid greeting each other in the corridor

4. The joke in Woody Allen's film is included in the text to indicate that _____.

   a) even though we know communication is very difficult to achieve, we keep hoping and trying because we have to be in contact with other people
   b) human relationships are like eggs: so fragile that we must always be careful not to hurt others' feelings
   c) misunderstanding is inevitable when trying to communicate in languages other than one's native tongue
   d) just as there is misunderstanding among people of different nationalities, there may also be misunderstanding between two brothers

134 THE VISUAL MEDIA

1 How do television and the other visual media affect the lives of individuals and families around the globe? The media can be very helpful to adults (and their children) who carefully choose the movies and shows that they watch. With high-quality programming in various fields of study—science, medicine, nature, history, the arts, and so on —TV and videotapes increase the knowledge of the average well-educated person; they can also improve thinking ability. Similarly, television benefits elderly people who can't go out often, as well as patients in hospitals and residents of nursing facilities. Additionally, it offers language learners the advantage of 'real-life' audiovisual instruction and aural comprehension practice at any time of day or night. And of course, television and video can provide almost everyone with good entertainment—a pleasant way to relax and spend free time at home. Nevertheless, there are several serious disadvantages to the visual media.

2 First of all, some people watch the 'tube' for more hours in a day than they do anything else. In a large number of homes, TV sets—as many as five or more in a single household—are always on. Instead of spending time taking care of their children, parents often use the tube as an 'electronic baby-sitter'. As a result, television and video can all too easily replace family communication as well as physical activity and other interests.

3 Secondly, too much TV—especially programming of low educational value—can reduce people's ability to concentrate or reason. In fact, studies show that after only a minute or two of visual media, a person's mind 'relaxes' as it **does** during light sleep. Another possible effect of television and video-tapes on the human brain is poor communication. Children who watch a lot of TV may lose their ability to focus on a subject or an educational activity for more than ten to fifteen minutes. Maybe it is because of the visual media that some children contract attention deficit disorder (ADD), a modern condition in which one is unable to pay attention, follow instructions, or remember everyday things.

4 A third negative feature of the media is the amount of violence or horror on the screen—both in real events in the news and in movies or TV programs. It can scare people and give them terrible nightmares; the fear created by media images and language can last for a long time. Another consequence is that frequent viewers of 'action programming' get used to its messages. Thus, they might begin to believe there is nothing strange or unusual about violent crime, fights, killing, and other terrible events and behavior. Studies show that certain personality types are likely to have strong emotional reactions or dangerous thoughts after some kinds of 'entertainment.' **They** may even copy the acts that they see on violent shows—start fires, carry and use weapons, attack people in angry or dangerous ways, and even worse.

5 Because of the visual media, some people may become dissatisfied with the reality of their own lives. To these viewers, everyday life does not seem as exciting as the roles actors play in movies or TV dramas. They realize they aren't having as much fun as the stars of comedy shows. Furthermore, average people with normal lives may envy famous media personalities, who seem to get unlimited amounts of money and attention. Also, media watchers might get depressed when they cannot take care of situations in real life as well as TV stars seem to. On the screen, **they** notice actors solve serious problems in one-hour or half-hour programs—or in twenty-second commercials.

6 Yet another negative feature of modern television is called 'trash TV'. These daily talk shows bring real people with strange or immoral lives, personalities, or behavior to the screen. Millions of viewers—including children—like to watch these 'fifteen-minute' stars tell their most personal secrets, shout out their angry feelings and opinions, and attack one another. TV watchers seem to enjoy the emotional atmosphere and excitement of this kind of programming—as well as the tension of the real but terrible stories on TV 'news magazine' shows. What effect does frequent viewing of such programs have on people's lives? **It** makes television more real than reality, and normal living begins to seem boring.

7 Finally, the most negative effect of the tube might be addiction. People often feel a strange and powerful need to watch TV or play videotape even when they don't enjoy it or have the free time for entertainment. Addiction to a TV or video screen is similar to drug or alcohol dependence: addicts almost never believe they are addicted.

A. What do the following refer to?

1. does (para. 3) : _____
2. They (para. 4) : _____
3. they (para. 5) : _____
4. It (para. 6) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. gradually begin to have an illness or problem (para. 3) (v.) : _____
2. desire or want something that is possessed by somebody else (para. 5) (v.) : _____
3. not considered good or right (para. 6) (adj.) : _____

C. Mark the best choice.

1. The main purpose of the text is to _____.

   a) explain the effects of frequent viewing of action programming
   b) inform the reader about how media can improve thinking ability
   c) argue against visual media and state its negative effects on people
   d) argue for high-quality TV programs in various fields of study

2. The text is probably written for _____.

   a) parents
   b) TV programmers
   c) media watchers
   d) educators

3. The writer's attitude towards the topic can best be described as _____.

   a) indifferent
   b) critical
   c) humorous
   d) emotional

4. Which of the following is **NOT** a possible effect of frequent viewing of violence and horror on TV?

   a) developing long-lasting fears
   b) imitating the violent acts on TV shows
   c) perceiving violence as something usual
   d) becoming dissatisfied with the reality of their own lives

D. Answer the following questions.

1. How can language learners benefit from the visual media?

   _____

   _____.

2. What role do parents give to television? How does this affect the family life?

   _____

   _____.

3. How does attention deficit disorder (ADD) affect children?

   _____

   _____.

4. Why do the 'fifteen-minute' stars on daily talk shows attract TV watchers?

   _____

   _____.

SPORTS & ADVENTURE

135 IMPS IN THE DESERT

1 The Imps is the name given to a motorcycle display team which is made up of children under the age of sixteen. The team was founded by Roy Pratt, who is a senior educational welfare officer in Hackney, which is one of the toughest areas of London. It really started by accident. He took a group of children from Hackney to the country as a part of a council-run scheme to help children from rundown inner-city areas. The children found a couple of old motorbikes which they managed to get working again: Roy Pratt taught them a few tricks which he had learned when he used to run motorcycle and horse riding displays when he was a member of the police force. 'It just grew from there' said Roy.

2 Children join The Imps as young as five and retire at the age of sixteen, but being a member of The Imps is not all fun. They don't spend all their time roaring around on motorbikes. There's a lot of hard work involved in rehearsing and doing the less glamorous jobs in preparation for the shows. As a result, many drop out, but, according to Roy Pratt, the effect on those who do manage to stay with him is dramatic. They have to make a commitment to go to school every day and to stay out of trouble with the police. Neither of these commitments is easy for children in this part of London where truancy, that is to say missing school, and juvenile crime are part of the accepted order. An added benefit is that ex-members of The Imps have nearly all got jobs because many employers appreciate their sense of responsibility which comes from being an Imp.

3 Six members of The Imps recently crossed the Grand Erg Occidental. This is a 400-mile stretch of dunes, or sand hills, in the Sahara Desert, which had been thought impassable by motor vehicles. The only people who had crossed it were the local tribesmen and they did it on camels or on horseback. The main difficulty, apart from the sun and the heat, was the problem of navigation. **They** had taken along a satellite navigator, but it broke down early on in the expedition and they had to rely on dead reckoning, which means working out one's position on a map by calculating the distance traveled in a certain direction. **This** works where there are no obstacles to prevent traveling in a straight line; however, it is a totally different matter in this part of the Sahara where the different kinds of dune make traveling in a straight line all but impossible. Getting over or round or through the dunes obviously meant detours which made navigation extremely difficult. The terrain was so bad that one day they only managed to cover 30 miles in 12 hours.

4 The vehicles that they used were motor tricycles - motorcycles with three wheels attached to balloon tires. These tires are not very practical to use on ordinary roads, but the extra surface area they gave on the sand meant that the weight of the machine, rider and luggage was distributed over a larger area and the grip was, therefore, much better. They still fell off or the motorbikes turned over, but the landing was usually soft. They had 27 punctures, one of the riders broke his arm, another lost his tent ... but they **made it** in the end.

A. What do the following refer to?

1. They (para. 3) : _____
2. This (para. 3) : _____
3. made it (para. 4) : _____

B. Fill in each gap using the information in the text.

* The children who join the Imps must (1)_____ to avoid truancy and criminal behavior. In other words, they have to promise not to skip school or get into trouble.
* (2)_____ was one of the most important problems the team was faced with; that is, they had difficulty finding their direction in the desert.
* As the (3)_____, i.e., the area of land was almost impassable, the team had to take a longer route instead of traveling in a straight line. That means they had to make (4)_____.

C. Answer the following questions.

1. What is the aim of the council-run scheme?

   _____

   _____.

2. Where does Ron's experience at motorcycling come from?

   _____

   _____.

3. Why do some members leave the Imps before they retire?

   _____

   _____.

4. What is the advantage of tires distributing the weight over a large area?

   _____

   _____.

136 SPONSORING SPORT

1 The fans cheer as your team comes onto the fields, wearing their brand-new T-shirts bearing a company name. As you're trying to spot your favorite player, your eyes wander onto the billboard on the other side of the field, and you see the name of a well-known product displayed in big letters. Welcome to the world of sport sponsorship.

2 Sponsorship is about getting the spectators to enjoy the sporting event and, therefore, to buy the sponsor's product. At its simplest, sponsoring sport gives a company a chance to put its name in front of the public so that it is remembered. However, sponsorship can be a more subtle process. If the name of the company or product is on your favorite player, you may, without realizing it, also feel good about the company.

3 Sponsors like to be linked to success and excellence. As a result, world champions and Olympic medalists are often approached by companies that want them to endorse their products —and some of these sports people make the most of it. They advertise one product rather than another because of the money they are paid, although not **many** get nearly as much as the million British pounds David Beckham was paid for endorsing Nike shoes.

4 International matches and championship finals are very popular with sponsors because they are televised, so the sponsor gets good publicity. Sponsors pay for the administration, organization, and expenses of the event, which allows the sportsmen or teams to keep any profit from television fees or ticket sales. Most major events depend on sponsorship to enable them to take place.

5 It is not only the stars of sport who are sponsored, however. Amateur teams and individuals can find sponsors from the local community or from national organizations. Sponsorship is given to individual athletes, sports teams and groups, coaching schemes, and sporting events. Sports Aid, a charity for sport, aims to further the education of young people through the medium of sport. They give grants that make it possible for younger up-and-coming sports people to buy the best equipment. These grants also help with training and competition costs. Sports Aid is funded by private individuals, professional fundraisers, and large companies. Last year, more than 2,000 grants were given to young sports people involved in 60 different sports, from archery to wrestling.

6 In addition, there are many sponsors who support achievement schemes for young people. They hope to get credit for encouraging **them** to take part in sport. So if you have any talent for a sport and would seriously like to improve, you should start looking for a possible sponsor now!

A. What do the following refer to?

1. many (para. 3) : many _____
2. them (para. 6) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. carrying (para. 1) (v.) : _____
2. approving (para. 3) (v.) : _____

C. Fill in each gap using the information in the text.

* Amateur teams and individuals are given sponsorship by (1a)_____ and (1b)_____.
* Thanks to the grants given by Sports Aid, younger up-and-coming sports people can (2)_____. These grants also help them pay for (3a)_____ and (3b)_____.

D. Answer the following questions.

1. For what two reasons does a company put its name on players' T-shirts?

   a) _____.

   b) _____.

2. Why do sponsors especially approach world champions and Olympic medallists?

   _____

   _____.

3. How do companies sponsor major sports events, such as international matches and championship finals?

   _____

   _____.

4. Who supports Sports Aid?

   _____

   _____.

5. According to the text, what is the best way for a talented person to achieve success?

   _____

   _____.

137 THE HISTORY OF FOOTBALL

1 Football is an ancient game, and most cultures around the world have had some form of this game. Football was played in China as early as the second century, and **it** was similar in some ways to soccer as it is played today. In the Chinese football game, the players used their feet and bodies to move the ball, but never their hands. The goal was a hole in a net made from silk, and the teams competed with each other to kick the ball through this hole. The winners received a silver cup filled with fruit or wine. The losers received a "prize" too: They were beaten up by the winning team!

2 What were the balls made of? In the British Museum in London, there is an exhibit of a number of ancient balls from various cultures around the world. Thousands of years ago, the Egyptians made balls out of soft leather or fine linen, and they filled them with straw to make them round and hard. In other cultures, the balls were filled with earth, grain, bits and pieces of plants, and sometimes even pieces of metal. The Mayas made their balls out of solid rubber.

3 Some historians believe that the first balls were actually heads! A group of people would cut off the head of one of their enemies and then use this head as a football, supposedly to celebrate their **victory** over their enemy and to bring them luck and **prosperity;** in this way, they could overcome their financial problems. In an ancient story from Great Britain, for example, the storyteller explains how the Britons cut off the head of a Danish invader and later played football with **it**. There is some evidence that animal heads were also sometimes used as footballs.

4 Ball games were connected to fertility in primitive societies. People believed that success in ball games would help their crops to grow and help the players to produce more children as well. From the earliest days, tribes divided their players into teams: unmarried men against married men or unmarried women against married women. It was believed that throwing the ball (the symbol of life and fertility) back and forth among these groups would help the players become stronger and produce healthier children in the future.

5 Football was popular in both ancient Greece and Rome. In the Greek version of football, the players on one team tried to carry a ball across a line in the other team's **territory,** and the opposing team tried to keep them from crossing the line. This version of football is similar in some ways to today's American football. The Roman football game was like the Greek game. The players had to throw the ball from one to another to get the ball over the other team's baseline. In this game, players were not allowed to kick the ball. Galen, a famous doctor in the second century in Rome, wrote about how football helped the players become stronger and healthier. Many other Roman writers wrote about how football helped prepare young men for war by teaching them the skills they needed for survival.

6 In England in the Middle Ages, whole towns played football on certain holidays, such as Shrove Tuesday, sometimes with as many as 500 players at one time. The goals were placed at the opposite ends of the town, and sometimes the game lasted all day. Everything was allowed: You could kick, trip, hit, or even bite your **opponent.** In fact, you could do anything you wanted in order to get or keep the ball. Consequently, players were often seriously injured. In addition to this, there was a lot of property damage throughout the town. Finally, in 1314, King Edward II made a law saying that people could not play football in the future and that anyone who broke this law would be sent to prison.

7 This law kept people from playing football for a while, but it was not successful for long because everyone, even priests and monks, had a strong attraction to the game. Finally, in 1603, when King James I came into power, football was allowed again, and people were even encouraged to play it. As time went on, rules were added to the game to make it safer and more orderly, and players were limited in what they could and could not do to get and keep the ball.

8 Football originally meant "a game played with a ball on foot" —as opposed to a game played on horseback, such as polo. Soccer, as played throughout the world today, is closest to the original football. Rugby, American football, and Australian Rules football all come from soccer and are later versions of the game.

A. What do the following refer to?

1. it (para. 1) : _____
2. it (para. 3) : _____

B. Match the words in the left column with the meanings in the right column. There are more meanings than you need.

_____ 1. victory (para. 3)	a) richness or wealth
_____ 2. prosperity (para. 3)	b) several things or people which are different
_____ 3. territory (para. 5)	c) an area or land belonging to someone
_____ 4. opponent (para. 6)	d) the person on the other team
	e) success
	f) members of the same team
	g) failure

C. Mark the best choice.

1. In the Chinese version of football, _____.
   a) players were allowed to use all parts of their bodies to move the ball
   b) both the winners and the losers received a prize of a silver cup filled with fruit or wine
   c) the aim was to kick the ball through a hole in a net that was made of silk
   d) there was only one team whose members competed with each other
2. The balls that the Egyptians used for playing football _____.
   a) were made of fine linen so that they would be soft
   b) had some metal pieces in them to make them more durable
   c) were made of solid robber
   d) were filled with straw so that they would be round and hard

3. In primitive societies, it was believed that _____.

   a) the future children of the people who were successful in ball games would be healthier
   b) participating in ball games would weaken a person's body
   c) women's participation in ball games was morally wrong
   d) there was no connection between success in ball games and crop production

4. According to the text, which of the following is **TRUE**?

   a) In England in the Middle Ages, priests and monks were of the opinion that people should not play football.
   b) On Shrove Tuesday, several football games were organized for everybody to play the game.
   c) King James I added new rules to football to make the game safer and more orderly.
   d) In the Roman version of football, there was a rule against kicking the ball.

D. Answer the following questions.

1. According to Roman writers, how was football beneficial to those going to war?

   _____

   _____.

2. Why did King Edward II make a law against playing football? (Give two reasons)

   a) _____

   b) _____.

138 SNOWBOARDERS INVADE THE SLOPES

1 From Vermont to California, snowboarders are going down the slopes on 5-foot-long, 10-inch-wide pieces of wood or fiberglass with fixed bindings. The newborn sport, like its cousins surfing and skateboarding, requires alertness and a fine sense of balance to guide the board down the slopes at speeds approaching 30 m.p.h.

2 The first attempt at snowboarding can be a miserable experience. For the novice, the only controls are *stop* (sit down) and *go* (very fast). Fortunately, after a painful start, most newcomers master the art as quickly as they fall down. "By your third day, you can be going down slopes that beginning skiers wouldn't touch," says David Alden, a former amateur snowboard champion.

3 Some proponents maintain that their sport is safer than skiing. Since there is just one board, the legs can never cross, so there are fewer broken ankles and hips. The injuries that occur are usually bruises to the upper body as a result of falls and occasional collisions with trees and other downhillers.

4 Some mountain ski resorts are cautious of the board, fearing that adventurous snowboarders might frighten regular skiers. Vail in Colorado and Sugarbush in Vermont are two of the places that have banned snowboarding, but more than 100 ski areas throughout the US allow it. As rentals are quite cheap and the equipment is not very complicated, many resort owners think snowboarding may lure a whole new crowd to try out the slopes. The sport has already achieved a great deal of respect. Next month, for example, the World Snowboard Classic will be held in Colorado, with more than 200 competitors from ten countries participating.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. newcomer, beginner (para. 2) (n.) : _____
2. crashes (para. 3) (n.) : _____
3. attract (para. 4) (v.) : _____

B. Answer the following questions.

1. What two skills are necessary to snowboard successfully?

   _____

   _____.

2. Which sentence in paragraph 2 implies that one can master snowboarding more quickly than skiing?

   _____

   _____.

3. Why has snowboarding been banned in Vail and Sugarbush?

   _____

   _____.

4. Which sentence supports the writer's claim that snowboarding is becoming widely accepted as a sport?

   _____

   _____.

139 PROFESSIONAL SPORTS

1 There are two kinds of sports, "amateur" and "professional." The main difference between them is that amateurs do not receive money for competing in sports but professionals do. For example, Olympic athletes are amateurs, so they usually cannot receive money for their participation. The word amateurs comes from the Latin *amare,* meaning "to love"; in other words, amateurs are supposed to play because they love the game. On the other hand, professional athletes are paid to compete, and some of the top professionals earn millions of dollars a year. Professional sports give athletes the opportunity to play sports as a career and to earn and save money for the future. As long as they can continue to play the game well, they can continue to perform. We, as **spectators,** have the opportunity to watch wonderful performances by our favorite professional athletes for the price of an admission ticket or by turning on the television.

2 However, there are some problems with professional sports. The main goal of sports is to encourage the development of good character as well as to give pleasure to the participants and the people watching them. Some professional athletes demonstrate **admirable** skill in playing their game, but their life off the field or the court is not very admirable and, in some cases, shocking and even criminal. Some have been charged with criminal acts, such as rape and using illegal drugs.

3 What is the role of professional athletes in modern society? Should they be role models for young people to admire, look up to, and imitate, as the early Olympic athletes were? Or do they just have to be top athletes and play their sport well? There is a lot of **controversy** around these questions. Arthur Ashe, the great American tennis player who died in 1993, criticized the behavior of some of his fellow athletes. He said that many of them did not take their responsibilities as sports stars seriously, and, consequently, they were poor models for young people to follow. Professional athletes do not agree on what their role should be. Charles Barkley, a star basketball player, believes that his role is to be a great basketball player, not a role model for young people. As he said, "I'm not paid to be a role model. I'm paid to destroy the other team in a basketball game." Barkley believes that what he does in his private life is his own business and should not be important to anyone else. On the other hand, Karl Malone, another star basketball player, disagrees with Barkley. He says that sports stars are role models for people even if they don't want to be. As Malone commented to Barkley, "Charles, you can deny being a role model, but I don't think it's your decision to make. We don't choose to be role models, we are chosen. Our only choice is whether to be a good role model or a bad one."

4 What do teenagers think about the role of professional athletes in society? They have different opinions about **it,** just as adults do. Some of them believe that sports stars should try to be role models in all aspects of their lives because kids look up to them and want to be like them. However, **others** believe that sports stars are just people, except for their outstanding skill in their sport. They believe that stars should not be expected to be perfect and that whatever they do in their private life is not important and is just their own business. They think kids will try to imitate their performance in their sport, not their behavior in their private lives. In other words, kids will try to play basketball like Michael Jordan, but they won't become gamblers because Michael Jordan is a gambler.

5 Another dark side of professional sports is the atmosphere of violence that surrounds them. There have been many unfortunate cases of spectators getting into fights and hurting and even killing each other at professional sports events. In soccer, for example, a terrible tragedy occurred at Heysel Stadium in Brussels before the European Cup Finals in 1985. An English soccer team was playing against an Italian soccer team for the European championship. The English fans started a fight with the Italian fans. As the fans pushed and shoved each other against the stadium walls, one of the walls collapsed. As a result, more than 50 people were killed, and many others were badly injured.

6 Professional sports have become more like business than pleasure. Everything is money, money, money. The team has to earn enough money to pay its expenses. **This** puts a lot of pressure on the players. They feel they have to win all the time, and winning becomes more important than anything else. In sports, there is a saying: "It is not important if you win or lose; what is important is the way you play the game." In professional sports, this saying is no longer true, unfortunately.

A. What do the following refer to?

1. it (para. 4) : _____
2. others (para. 4) : other _____
3. This (para. 6) : The fact that _____

B. Mark the best choice.

1. A 'spectator' (para. 1) is a person who _____.
   a) participates in sports
   b) organizes sports activities
   c) watches a sporting event
   d) sells tickets for football matches
2. If something is 'admirable' (para. 2) it means it is _____.
   a) respectable b) obvious c) stressful d) difficult
3. 'Controversy' (para. 3) is a(n) _____.
   a) answer to a question
   b) problem that can easily be dealt with
   c) strong disagreement about something
   d) decision that has been made

C. Mark the following statements True (T) or False (F).

T F 1. Olympic athletes are paid millions of dollars for each competition they participate in.

T F 2. As the name suggests, 'amateurs' are expected to play just because they love the game.

T F 3. Arthur Ashe was of the opinion that athletes should be role models for young people to follow.

T F 4. Charles Barkley, a star basketball player, thinks that people have the right to interfere with the private lives of athletes.

T F 5. According to Karl Malone, sports stars themselves cannot decide whether to be a role model or not.

T F 6. Michael Jordan is perfect both in terms of his career and private life.

T F 7. Before the European Cup Finals in 1985, one of the stadium walls collapsed because too many people tried to enter the stadium to watch the game.

T F 8. In the past, people were involved in professional sports mainly for pleasure.

D. Answer the following questions.

1. When do the professional lives of athletes come to an end?

_____

_____.

2. According to the text, what do sports mainly aim at?

a) _____

b) _____.

3. What was the social role of the early Olympic athletes?

_____

_____.

E. Mark the best choice.

1. The writer _____.

a) disagrees with the idea that professional athletes should be role-models for teenagers

b) disapproves of the fact that professional sports have become like a business

c) criticizes the teenagers who imitate famous professional sportsmen

d) urges the authorities to stop violence in professional sports events

140 SWEDISH ADVENTURER GÖRAN KROPP KILLED IN FALL

1 Swedish adventurer Göran Kropp, 35, fell to his death on September 30, 2002, while climbing a popular route on the Frenchmen Coulee, in central Washington State. Kropp was ascending (climbing) the Air Guitar route near the town of Vantage when he fell 25 meters onto a rock shelf. All of his climbing protection, except for one piece, had been ripped by his surroundings. The local health official reported that he had died of severe head injuries.

2 Göran Kropp became a worldwide **celebrity** after the news of his 1996 bicycle journey from Sweden to Nepal appeared in leading newspapers everywhere. He cycled 7,000 miles and left his bicycle on the skirts of Mount Everest. Then he **summited** Everest without oxygen. After coming back down, he took his bicycle and rode it home to Sweden again. Often referred to as the Crazy Swede, Kropp was recently called 'the most entertaining adventurer on Earth.'

3 Early one autumn, Kropp agreed to spend a day climbing with Erden Eruc, whom he had met at a presentation a year before. On a Monday morning, Kropp met Eruc at the Frenchmen Coulee. It was the first time Kropp was in the area, so, on that day, Eruc secured the climbing rope* for Kropp to hold onto and climb, according to a written report he prepared after the accident. "Göran said the climbs were really **challenging**," Eruc said of the Swedish adventurer's first few climbs that morning. "He hadn't expected them to be so hard. We agreed to go crack-climbing** together the following year so that he could become an expert in the field, and he felt relaxed."

4 After Kropp had made a few climbs, the **duo** turned their attention to the Air Guitar crack, a difficult ascent, and together they decided that Kropp would climb it. According to Eruc's report, Kropp climbed most of the route and had reached the final and most difficult section of the climb when he fell. Eruc heard **commotion** above and realized Kropp was falling. In what he describes as a quick sequence, Eruc saw the first piece of protection pull out, felt the rope become slack, then pulled to take in the rope to prevent Kropp from falling. He was unsuccessful, though, and he heard Kropp fall onto a small rock shelf just below him. Looking down, he saw Kropp lying on his back, his helmet (hat made of strong hard material) **shattered**. Eruc climbed down and found that Kropp was bleeding heavily from his ears and nose. "I have no doubt that he died immediately after he fell," he wrote in the accident report. Falls like Kropp's, in which several pieces of protection fail, are unusual but not unheard of, according to Matt Stanley, a magazine editor. Positioning the protection pieces carefully can decrease the chances of an accident.

5 Kropp's fame as a mountaineer had increased before his death together with his popularity as a fascinating motivational speaker. "It is not just that he stood up there and **chronicled** his events," said his friend, Kaj Bune. "He was able to communicate what is in the mind of a human being that makes him go out and look for adventure. He was the greatest, brightest light the world of adventure has ever known."

* climbing rope: a piece of strong thick cord used by mountaineers

** crack climbing: climbing mountains by placing hands and feet in narrow spaces in the rock

A. Match the words in the left column with the meanings in the right column. There are more meanings than you need.

1. ____ celebrity (para. 2)
2. ____ summitted (para.2)
3. ____ challenging (para. 3)
4. ____ duo (para. 4)
5. ____ commotion (para. 4)
6. ____ shattered (para. 4)
7. ____ chronicled (para. 5)

a) sudden noise
b) climbed down
c) reached the top of
d) enjoyable activity
e) resident
f) famous person
g) broken to pieces
h) difficult and requiring great effort
i) reported or told
j) couple / pair
k) immigrant
l) emergency landing
m) situated

B. Mark the best choice.

1. According to the text, Kropp _____.

   a) took Eruç to the Frenchmen Coulee for the climb
   b) made plans about future climbs together with Eruç
   c) knew the area around the Frenchmen Coulee quite well
   d) first met Eruç on a cycling tour

2. According to the accident report, _____.

   a) Kropp did not die immediately after he fell
   b) Eruç did not learn about the fall until he saw Kropp lying on his back
   c) Kropp fell in the last part of his climbing route
   d) Eruç did not do anything to try to save Kropp from falling

3. According to the text, it is possible to decrease the possibility of an accident by _____.

   a) increasing the number of protection pieces
   b) arranging the protection pieces with care
   c) writing about such uncommon accidents to make them known
   d) not having too many protection pieces which can fail

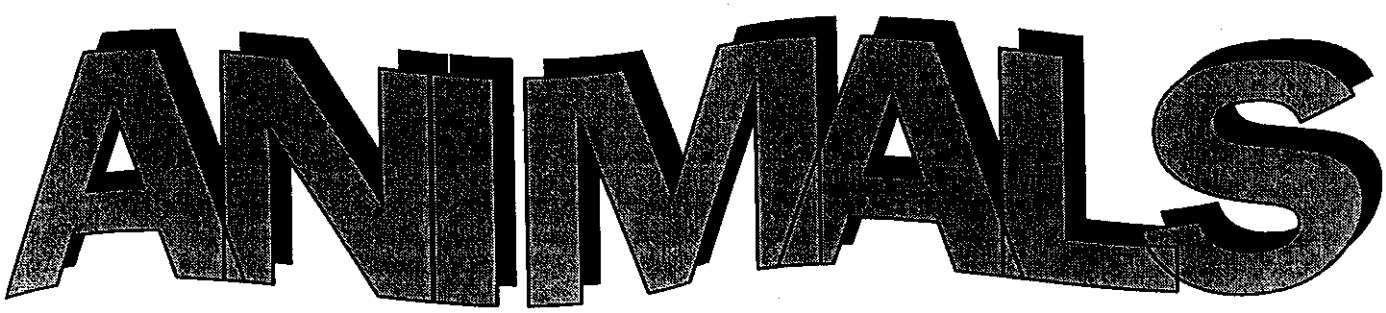
4. Which of the following is **NOT** mentioned in the text as a reason why Kropp became well-known?

   a) He was able to clearly explain why people want adventure.
   b) He was a remarkably effective speaker.
   c) He entertained people with his fearless adventures.
   d) He wrote reports about all his climbs.

C. Mark the following statements True (T) or False (F).

T F 1. In 1996, Kropp cycled from Sweden to Nepal and later cycled back to Sweden.

T F 2. Accidents like Kropps are quite common among mountain climbers.


ANIMALS

141 PANDAS

1 Pandas are large animals with big heads, heavy bodies, rounded ears and short tails. They are famous for their black and white markings. The legs, shoulders and oval patches around the eyes are black, and the rest of the coat is white. They have thick, oily, woolly fur. It is waterproof, and keeps them warm in cold forests.

2 Male pandas are large. Adult male pandas stand 100 centimeters high, and weigh about 100 kilograms, but female **ones** stand 80 centimeters high. They rarely reach 90 kilograms.

3 Females often give birth to two babies. They are called cubs. Usually one of **them** dies. A newborn cub weighs 85 to 140 grams. It is pink, hairless and blind. Its eyes open when it is 6 to 7 weeks old. Cubs grow very slowly. They stay with their mothers for two years.

4 Pandas live in cold and rainy bamboo forests in the mountains of western China. They move to low places during cold winter months to keep warm, and to high mountains in summer to stay cool. There is food all year round in these forests, and this makes pandas' lives easier because they need to eat 18-20 kilograms of food every day. For this reason, they never hibernate in the winter. Bamboo is the most important plant in their life, and they love it. They use their front paws to hold the bamboo, so they usually eat while sitting. They spend at least 12 hours each day eating bamboo. Pandas need a lot of water. They get much of this water from bamboo, but they also need to drink fresh water from rivers almost every day.

5 There are about 1,600 pandas left in the wild, and about 160 pandas live in zoos and breeding centers around the world, mostly in China. Scientists are not sure how long pandas live in the wild, but **they** are sure these animals live longer in zoos than in the wild. There are zoo pandas as old as 35 years of age.

A. What do the following refer to?

1. ones (para. 2) : _____
2. them (para. 3) : _____
3. they (para. 5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. A baby panda cannot see when it is born.
T F 2. Bamboo provides all the necessary water for pandas.
T F 3. There are about 1,600 pandas all over the world.
T F 4. It is believed that pandas live longer in the wild than in the zoo.

C. **Answer the following questions.**

1. What keeps pandas warm in the cool forests?

_____

_____.

2. What do pandas do to stay cool in summer?

_____

_____.

3. Why don't they hibernate in the winter?

_____

_____.

4. What is their favorite food?

_____

_____.

5. Why do Pandas usually eat while sitting?

_____

_____.

142 CATS

Some people hate cats, and some people love them. The old Egyptians and the Chinese loved their cats. Cats had a very important place in those cultures. Today, in every country, a lot of people have cats too. Cats are very useful animals for people. For example, they are the worst enemies of mice. When there is a cat in a house, you won't see many mice around.

Cats are not difficult pets to have. First, they stay very clean and they don't make the house dirty. Second, cats like being alone, so you don't have to spend a lot of time with them. Third, they don't make a lot of noise, so you don't have many problems with your next-door neighbors.

Here are some facts about cats:

* We say a cat has nine lives, but actually a cat can die after a fall from a high tree.
* Cats love being by a fire, but they are also very happy in snow.
* Young cats love playing with a ball.
* Old cats are very lazy.
* Cats don't like swimming.

A. Mark the following statements True (T) or False (F).

T F 1. It is easy to look after a cat in the home.
T F 2. Cats never die when they fall from a high place.
T F 3. Cats hate snow.
T F 4. When cats get older, they don't play very much.

B. Complete the following sentences.

1. Cats were very important for two cultures: _____ and _____.
2. Cats are quiet animals, so _____.

C. Answer the following question.

1. Do you need to spend much time with your cat? Why (not)?

_____

_____

143 THE ARCTIC FOX

The Arctic Fox lives in the far north, mainly in the Arctic Circle. It is small, about the same size as a cat, with short legs and short rounded furry ears. Its tail is about 30 cm long. Its thick fur coat helps it live in freezing temperatures. Thick hair on the pads of its feet helps it to walk on the ice. Near the end of summer, its grayish brown coat begins to grow thicker. The color of the fur becomes gray and then white. This makes it very hard to see the fox in winter. The female Arctic Fox has 4 to 11 pups in late spring. Both parents hunt to feed their babies. When they can't find meat, they bring fruit, seaweed and fish eggs. At two weeks, the babies open their eyes. At three weeks, they go outside and begin to explore. When the young foxes grow older, they learn how to hunt and become independent. The Arctic Fox has to be careful because Polar Bears kill it, and people hunt it for its beautiful fur coat.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. extremely cold (adj.) : _____
2. baby foxes (n.) : _____

B. Mark the following statements True (T) or False (F).

T F 1. The Arctic Fox is an inhabitant of the Arctic Circle.

T F 2. The father helps the mother feed the babies.

T F 3. Baby foxes are born with their eyes closed.

T F 4. After first two weeks baby foxes are not dependent on their parents.

C. Answer the following questions.

1. Why is it difficult to see the Arctic Fox in winter?

_____

_____.

2. What does the Arctic Fox eat?

_____

_____.

3. Why do people kill the Arctic Fox?

_____

_____.

D. Fill in each gap using the information in the text.

1. The Arctic Fox and a cat are _____.
2. Because it has _____, the Arctic Fox can walk easily on the ice.

144 SHARKS: USEFUL HUNTERS OF THE SEA

Most people are afraid of sharks, but they usually do not know very much about **them**. For example, there are 350 kinds of sharks, and all of them are meat eaters. Some sharks are very big, but **some** are very small. For example, the whale shark is 50 to 60 feet long, but the dwarf shark is only 6 inches long. The shark species is 100 million years old. In fact, the first species of sharks lived at the same time as the dinosaur.

Today, sharks live in every ocean in the world, but most sharks live in warm water. Sharks do not have ears, but they can "hear" sounds and movements in the water. Any sound or movement makes the water vibrate. Sharks can feel these vibrations, and **they** help the sharks find food. Sharks use their large eyes to find food too. They eat sick fish and animals, so they keep the oceans clean. Scientists want to learn more about sharks for many reasons. For example, cancer is common in many animals and human beings, but it is rare in sharks. Scientists want to find out why sharks almost never get cancer. Maybe this information can help prevent cancer in people too.

A. What do the following refer to?

1. them : _____
2. some : some _____
3. they : _____

B. Fill in each gap using the information in the text.

1. All _____ meat.
2. It is very interesting that cancer is not (a)_____ sharks. Scientists want to learn the reason for this because by learning the reason they (b)_____.

C. Mark the following statements True (T) or False (F).

T F 1. The dwarf shark is bigger than whale shark.

T F 2. The shark is as old as the dinosaur.

D. Answer the following question.

1. Why are sharks so useful for the sea?

_____

_____.

145 GENTLE GIANTS OF THE EARTH

1 They live with their mothers, sisters, aunts, nieces and nephews, and an old grandmother, who is the head of the family. They show emotions such as joy, sorrow, anger, patience, and friendliness. They become excited when they meet old friends. Who are these people? In fact, they are not people; they are elephants!

2 Elephants are the largest land animals on Earth. An adult male African elephant can weigh six tons and be four meters tall. Elephants usually have two tusks. These are long, pointed teeth that extend from the elephant's mouth. Over the years, the elephant ate more and more food and grew larger teeth. An elephant's tusks grow all through its life. Elephants use their tusks only for protection. They do not use them to kill because elephants do not eat any meat. They eat only plants. An elephant shows signs of old age at 50 years and it may live 60 years or more, but there are no examples of 100-year-old individuals.

3 Elephants are the giants of the animal kingdom. However, the size of an elephant is not its only uncommon feature. The most interesting characteristic of an elephant is its trunk. An elephant uses it to smell, wash, eat, drink, 'talk' and hug. It also uses it to lift things. It can lift up to about 450 kg., but it does not carry heavy loads on its trunk, or with its trunk. It places the load across the tusks and holds it in place with the help of the trunk. However, elephant babies do not know how to use their trunks, just as human babies are not born with the ability to walk. Learning to walk is not easy, and it takes a lot of practice. In the same way, it takes time for baby elephants to learn how to use their trunks well.

4 Over the last 20 years, people have studied elephants and how they live. Consequently, we are beginning to understand these fascinating giant creatures. Unfortunately, their number is quickly decreasing—there were about 1.5 million African elephants in 1975; now there are fewer than 600,000. People are killing elephants to make money by selling their ivory tusks. This ivory is used to make bracelets, rings, and other ornaments. However, precautions should be taken to stop, or limit this ivory trade because tourism is also important to the economy of many African countries and elephants are a part of the tourist attraction. Many people travel to Africa to enjoy its beautiful countryside, learn about its culture and see its unusual animals. Hopefully, with cooperation among countries around the world, elephants may continue to live, and everyone can see these fascinating giants of the Earth.

A. Mark the following statements True (T) or False (F).

T F 1. Elephants are similar to people as they show their feelings, too.

T F 2. An elephant lives nearly 100 years.

T F 3. An elephant carries loads of 450 kg., or more with its trunk.

B. Answer the following questions.

1. Why is the number of elephants decreasing?

_____

_____.

2. What is ivory used for?

_____

_____.

3. Write three reasons why people visit Africa.

a) _____.

b) _____.

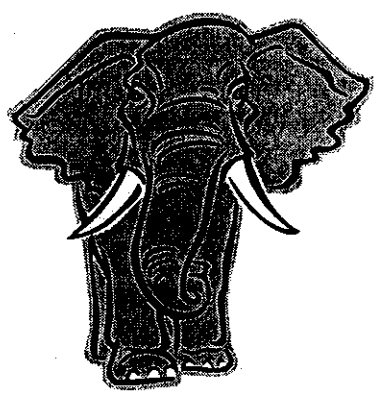
c) _____.

C. Fill in each gap using the information in the text.

1. Elephants use their tusks _____ themselves, not _____other animals or people.

2. The two uncommon features of an elephant are _____ and _____.

3. Human babies need practice to learn to walk. Similarly, elephant babies need practice to learn _____.



146 THE EMPEROR PENGUIN: APTENODYTES FORSTERI

1 True to its name, the emperor penguin is the largest of all penguins and one of the heaviest of all birds. Scientifically speaking, Aptenodytes means 'featherless diver' and refers to the emperor penguin's incredible ability to dive deeper than any other bird on earth. However, contrary to this name, emperor penguins have 4 layers of feathers to protect them from the Antarctic weather. Forsteri, the emperor penguin's species name, honors Johann Reinhold Forster (1729-98). Forster was a naturalist on Captain James Cook's voyage around the world and was the first person ever to describe penguins.

2 From a distance, emperor penguins look like little men wearing tuxedos. They are easily recognized by their black cap, blue-gray neck, orange ear-patches, yellow breast and white belly. Emperor penguins may be as tall as 1.15 m and can weigh as much as 40 kg and they are the largest of the 17 penguin species. Their 4 layers of feathers are all covered in a greasy waterproof coating. The feathers defend them against the chilling Antarctic weather, just like a mammal's fur does. Like seals and whales, which both live in cold water, emperor penguins also have a thick layer of fat below the skin for extra insulation.

3 In the Antarctic winter, temperatures can fall to more than 40 degrees below zero; freezing winds can reach speeds of 200 km/hr. Under these conditions, feathers and fat just aren't enough and the emperor penguins must depend on each other to survive. Unlike other types of penguins, which are all territorial, emperor penguins don't mind sharing their space with others. To keep warm, emperors gather in large groups called huddles. Inside a huddle the temperature can rise as much as 20 degrees above the outside air temperature.

4 Emperor penguins are 'sociable' animals and live in crowded groups called rookeries or colonies. There are approximately 45 colonies around Antarctica, which range in size from 200 to 50,000 penguins. Colonies of emperors gather on the sea ice (ice that forms naturally on the sea) around Antarctica and use icebergs for shelter — especially from strong winds. Amazingly, emperors are the only birds in the world that usually spend their whole life without ever coming to land.

5 Emperor penguins live off the coast of Antarctica. Unlike all other penguins in the Antarctic, emperor penguins do not migrate to warmer climates for the winter months. In fact, they are the only penguin species which is able to survive the harsh Antarctic winters and breed during some of the worst weather conditions on earth. How the chicks (baby penguins) can survive in such difficult conditions is a mystery.

6 Emperor penguins have a most abnormal breeding cycle. The breeding season occurs through the winter months and is amazingly coordinated with the formation and the break up of sea ice. Their breeding season is so perfectly coordinated with nature that the chicks become mature enough to leave their parents by the summer. This is when the weather gets warmer, the ice on the sea begins to break up and food becomes more available. After learning to swim and feed themselves, sometime between December and February, the chicks leave their parents.

7 It is not known for sure how long emperor penguins usually survive in the wild. It is estimated, however, that after the emperor chicks reach adulthood they have a good chance of surviving another 20 years or more.

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. protection against the cold (para. 2) (n.) : _____
2. a place for protection (para. 4) (n.) : _____
3. produce young (para. 5) (v.) : _____
4. unusual or uncommon (para. 6) (adj.) : _____

B. Mark the following statements True (T) or False (F).

T F 1. 'Aptenodytes', the scientific name of the emperor penguin, is a true indicator of all its physical characteristics.

T F 2. The emperor penguin was named 'forsteri' after Reinhold Forster, the first person who described penguins.

T F 3. The grease on the penguins' feathers prevents them from getting wet.

T F 4. Emperor penguins spend almost their whole life on the sea.

T F 5. Many penguin species stay in the Antarctic during the winter.

T F 6. The life expectancy of a newborn emperor penguin is thought to be almost 20 years.

C. Mark the best choice.

1. What is the main idea of paragraph 3?

   a) Extreme cold and strong winds are the basic characteristics of the Antarctic winters.
   b) Some penguins are territorial but emperor penguins aren't.
   c) Emperor penguins rely on one another in order to survive the harsh Antarctic winters.
   d) Huddles are large groups in which emperor penguins live.

2. What is the main idea of paragraph 6?

   a) The unusual fact about emperor penguin chicks is that they become mature enough by the summer.
   b) The Emperor penguins' breeding season is surprisingly parallel to the seasonal changes.
   c) When the sea ice breaks up, food becomes more available for baby penguins.
   d) Before starting to live away from their parents, baby penguins learn to feed themselves.

147 LANGUAGE FOR CHIMPS

1 All animals communicate with others of their kind. Many of their communicative acts are essentially reflexive, as when a bird persuades others to sing, or the croaking of a frog initiates this act in other frogs. These behaviors for the most part serve to signal dangers, interest in mating, and territorial claims.

2 Among primates, research has shown some communicative acts which are similar to **those** employed by human beings. Chimpanzees communicate by bowing, kissing, and touching. They also have a few vocal signals, such as calls and grunts. Because of these similarities, scientists have always wondered whether the chimpanzee, our closest relative from the standpoint of evolution and neurological development, has the capacity to acquire language.

3 Some years ago, Winthrop and Luella Kellogg decided to study this and reared a chimpanzee in a normal human environment. Gua, a seven-month-old female chimpanzee, was adopted into their household to be treated in the same way as their ten-month-old son Donald. Shortly after the experiment began, Gua became slightly superior to Donald in word recognition. As time passed, however, the child caught up with the chimp, and by the end of the period of investigation he was significantly ahead in word recognition. Throughout the experiment, Gua remained nonverbal in word usage. Her communication included some gestures, such as wriggling her lips when she wanted apples, but no words. Her only vocalizations were sudden barks or cries in moments of excitement, fear, or pain. Donald, on the other hand, passed through the normal cooing and babbling stages and by the end of the research, said his first words. He said "da" meaning "down" and "bowwow" for the dog, and he used a few other words. However, as his parents emphasized, he did not show language mastery either. Unfortunately, this research had to be discontinued after nine months, due to the increasing strength and enormous agility of Gua, that is, her being too active, around the house.

4 It is possible that Gua's failure to develop words, as well as prior cooing and babbling, was due to her limited speech mechanisms, rather than her mental ability. No primate, as far as we know, has demonstrated coordination of mouth and throat mechanisms comparable to **that** displayed by a young child in speaking. Therefore, it was concluded, to find out whether the chimpanzee is capable of learning human language, different approach is required.

5 For this purpose, 35 years later, another chimpanzee, named Washoe, was reared entirely apart from human speech. This twelve-month-old female was exposed only to American Sign Language (ASL), used by the deaf. During the first four years of this experiment, ASL gestures were taught to Washoe using the best methods known to science. Operant conditioning, modeling, and direct manipulation of the hands were used, and thus Washoe's training differed markedly from that of Gua years earlier. For example, whenever Washoe imitated a sign that was modeled by one of her experimenters, she was immediately rewarded. Furthermore, when she brought her hands together in a pattern resembling the ASL sign for 'more', she was rewarded again. Through this operant conditioning, an acceptable sign for 'more' was established. In these ways, Washoe acquired a larger and larger vocabulary, learning at a more rapid rate as the experiment progressed. Like a normal child, rather than becoming more confused as more words were added, she seemed to learn them more easily and had a vocabulary of 160 signs at the end of the four-year experiment. More importantly, Washoe made 294 different two-sign combinations, and comparative studies have shown that 78 percent of these combinations are similar to the earliest two-word combinations of children. This finding suggests that four-year-old Washoe, who began training at the age of one, has been using language much like a child approximately 16 to 27 months old. On this basis, Washoe's achievement is remarkable, despite the fact that she falls behind a human child as regards the ability to speak a language.

A. What do the following refer to?

1. those (para. 2) : _____
2. that (para. 4) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Although many animals' communicative acts are reflexive, most of these have a purpose.

T F 2. The more words were taught to Washoe, the more difficult it became for her to learn them.

T F 3. At the age of 1, Washoe could use language much like a 16-27-month-old child.

C. Mark the best choice.

1. Throughout the experiment carried out by Winthrop and Luella Kellogg, _____.

   a) Donald and Gua developed at just about the same rate
   b) Gua was superior to Donald in her ability to use words
   c) Gua made no sounds other than barks or cries
   d) Gua was unable to vocalize anything at all

2. An example of operant conditioning is _____.

   a) manipulating Washoe's hands to make signs
   b) modeling a sign for Washoe to copy
   c) rewarding Washoe after she made an appropriate sign
   d) establishing the sign for the word 'more'

3. The main idea of this text is that _____.

   a) chimpanzees can communicate with human beings if they are taught the language
   b) chimpanzees are unable to communicate even if they have been raised together with human beings in the same environment.
   c) ASL is the only language chimpanzees can use to communicate with human beings
   d) although they recognize human speech sounds, chimpanzees can't produce them due to their limited speech mechanisms

D. Fill in each gap using the information in the text.

* At the end of a nine-month experiment, it was observed that neither Gua nor Donald displayed (1)_____.
* (2)_____ and (3)_____ made the Kelloggs' experiment impossible to be carried out at the end of nine months.
* Throughout her training, Washoe was deprived of (4)_____ and was taught only ASL.

HISTORY

148 How New York Began

1 American Indians were the first to live on the island of "Manhattan", which means "hill island" in their language. They lived there for hundreds of years. Today this island is the centre of New York City. There aren't any hills now and there aren't any Indians, but their old home is still called Manhattan Island.

2 In 1609, an Englishman named Henry Hudson sailed his boat, the *Half Moon*, across the Atlantic Ocean from Holland. He wanted to find India. Instead, he found the river that took him to Manhattan Island. Now, that river is called the Hudson.

3 Hudson and his seamen made friends with the Manhattan Indians, and soon more people came from Holland. These Dutch people built a small town in the south of the island. They named the town New Amsterdam, after the city in Holland. Then, in 1626, Peter Minuit, from Holland, bought all of Manhattan Island from the Indians. He gave them some cloth and beads worth about $24.

4 In 1664, the English sent soldiers to Hudson River. They also sent a letter to Peter Stuyvesant, the Dutch governor, to inform him that they wanted Manhattan. Stuyvesant was very angry about the letter, but he knew that the English soldiers were very strong. In the end, the Dutch left New Amsterdam and the English came.

5 The leader of the English soldiers who took control of the city was the Duke of York, so the English named the city after him and changed it to New York. New York remained English for over one hundred years. Then, in 1776America won its independence from Britain, and the United States was born. From 1776 to 1784, New York was the capital of the United States. Interestingly, some people around the world still think that it is the capital of the United States today, but it isn't.

A. Mark the following statements True (T) or False (F).

T **F** 1. American Indians don't live in the centre of New York City any more.

T **F** 2. Manhattan Indians did not like Hudson and his seamen.

T **F** 3. New York was the capital of the United States till 1776.

B. Fill in each gap using the information in the text.

* In 1609, Henry Hudson left (1)_____ because he wanted to go to India. He sailed across the Atlantic Ocean. The name of his boat was (2)_____. He didn't find (3)_____, but he found the river to Manhattan Island.

* The English wanted (4) _____ so they sent soldiers to Hudson River and a letter to Peter Stuyvesant. Later, the Dutch left New Amsterdam and people from (5)_____ came.

C. **Answer the following questions.**

1. What does Manhattan mean in the language of American Indians?

_____

_____

2. Where did the Dutch build their town in Manhattan?

_____

_____

3. When was the United States born?

_____

_____

149 THE CALIFORNIA GOLD RUSH

1 Although there have been many Gold Rushes in world history, the California Gold Rush was a unique event. Unlike other places, the gold in California was both plentiful and easy to get—at least at first. The result was great change in California, America, and the entire world.

2 Gold was first discovered in California by James Marshall in early 1848 while he and twenty men were building a sawmill for John Sutter, one of the wealthiest people in the region. Marshall took the samples to Sutter's fort, where they tested the shiny metal as well as they could. With the help of an encyclopedia, they concluded that it was gold. However, neither man was happy about it. Sutter was building his empire based on agriculture. He didn't want the competition that gold-seekers might bring, and Marshall had a sawmill to build. He thought gold hunters would just get in his way. So **they** agreed to keep the discovery a secret. However, it wasn't long before stories of gold reached the surrounding countryside. Yet, there was no rush because people thought it was just another fantastic tale. The Gold Rush began with Sam Brannan, a skilled craftsman. **It** made him the richest person in California, but he never mined for gold. In the streets he shouted about Marshall's discovery. As proof, Brannan held up a bottle of gold dust, which started the rush for gold. He sold shovels, axes, and pans. A metal pan that sold for twenty cents a few days earlier, was now available from Brannan for fifteen dollars. In just nine weeks he made thirty-six-thousand dollars.

3 By 1849, thousands were on the way to California. Some traveled by ship around the tip of South America, which often took more than six months. They faced problems such as diseases, lack of drinking water, and boredom. Some others took shortcuts across Panama and Mexico. However, they also encountered some difficulties. Malaria and Cholera were common and traveling through the rain forests of Central America in the 1840s was an adventure itself. Those who survived to see the Pacific had to wait for weeks, or months, in overcrowded, disease-infested coastal towns. Americans who lived in the central states traveled overland on the already established Oregon-California Trail. This road was much shorter than the sea route, but it wasn't faster. The main difficulty was a lack of water. The price for water could go as high as $100 per drink. Those without money were sometimes left to die.

4 The gold seekers were called "49ers" because most left home in 1849. Importantly, 49ers were not uniquely American. Quite the contrary, the California Gold Rush was a world event, attracting gold seekers from Mexico, China, Germany, France, Turkey, and nearly every other country in the world.

5 Many people became very rich either by mining gold or by selling the things that the gold-seekers needed. However, it didn't last forever. By mid 1849, the easy gold was gone but the 49ers kept coming. There was still gold in the riverbeds, but it was getting harder to find. In time, frustration and disappointment led to crime. Many gave up the dream and went home.

6 As the gold became more difficult to extract, great changes in California took place. By the early 1850s, miners came together in informal companies to dam the rivers, reroute the water and expose the gold underneath. Later on, groups of miners were replaced by corporations. By the mid 1850s, most of the miners who remained were employees. The mining techniques that the mining corporations developed destroyed the rivers and caused California's first environmental disasters. It took years to stop the destructive techniques, but by then the Gold Rush had changed California in every way.

A. What do the following refer to?

1. they (para. 2) : _____
2. It (para. 2) : _____

B. Mark the following statements True (T) or False (F).

T **F** 1. The California Gold Rush was not like the other ones because the gold was available in large amounts and easy to extract in California.

T **F** 2. As soon as Marshall saw the shiny metal, he understood that it was gold.

T **F** 3. Gold-seekers rushed to California immediately after the gold was discovered in the region.

T **F** 4. Sam Brannan became rich by selling the tools that the gold-seekers needed at high prices.

T **F** 5. Those who chose to travel on Oregon-California Trail arrived in California more quickly than those that took the sea route.

C. Mark the best choice.

1. Which of the following is **NOT** one of the disadvantages of the sea route around the tip of South America?

   a) People following that route suffered from some diseases.
   b) They couldn't find enough drinking water.
   c) They had to pass through the rain forests.
   d) It took a long time, which caused boredom.

2. The main characteristic of 49ers was that _____.

   a) most of them were criminals
   b) they were from nearly all parts of the world
   c) some of them became rich but not by mining gold
   d) all traveled across Panama and Mexico in order to reach California

3. Which of the following is **NOT** one of the effects of the California Gold Rush?

   a) John Sutter became rich and built his empire.
   b) People came together and formed companies and corporations.
   c) The environment was badly damaged.
   d) New mining techniques were found

150 THE GREAT WALL OF CHINA

1 The Great Wall of China is more than 2,000 years old, and is one of the great wonders of the world. It can be seen from Earth orbit but, contrary to legends, is not visible from the moon according to astronauts Neil Armstrong, Jim Lovell, and Jim Irwin. Stretching 4,500 miles from the mountains of Korea to the Gobi Desert, it was first built to protect an ancient Chinese empire from marauding tribes in the north. However, it evolved into something far greater —a boon to trade and prosperity and ultimately a symbol of Chinese genius and will.

2 The Great Wall is actually a series of walls built and rebuilt by different dynasties over 1,000 years and while they often served the same purpose, these walls reflected the worlds —both natural and cultural— in which **they** were erected. For all its seeming timelessness, the Great Wall is an emblem of China's evolution.

3 The Wall was first in the form of individual sections, which were later connected during the Qin dynasty (221-206 BC). Qin Shi Huangdi, the first emperor of Qin, forced peasants, enemies, and anyone else who wasn't tied to the land to go to work on the wall. He garrisoned armies at the Wall to stand guard over the workers as well as to provide early warning of invasion and a first line of defense. The tradition lasted for centuries from one dynasty to another. **Each** added to the height, length and elaborated the design mostly through forced labor.

4 It was during the Ming dynasty (1368-1644 AD) that the Wall took on its present form. It was enlarged and renovated over a 200-year period. The watch towers were redesigned and modern cannons were mounted in strategic areas. The Portuguese had found a ready market for guns and cannons in China, two of the few items of trade that China didn't already have in abundance. The Ming Emperors, having overthrown the Hun dominance and expelled their Mongol rulers of the North, devoted large portions of available material and manpower to making sure that **they** didn't return. The security was strengthened with the construction of small garrison towns and blockhouses.

5 The construction of the walls required great effort. In addition to that, there weren't many farms or trade towns nearby to provide ease, relaxation and food. Supplies were always short and chancy, particularly in winter, which made the conditions more difficult.

6 The Wall served well. Only when a dynasty had weakened from within were invaders from the North able to advance and conquer. Both the Mongols and the Manchurians were able to take power, not because of weakness in the Wall but because of weakness in the government and the poverty of the people. They took advantage of rebellion from within and stepped into the void of power without extended wars.

7 Although some of the sections of the Wall are now in ruins or have disappeared completely, it is still one of the most attractive landmarks of the world.

A. What do the following refer to?

1. they (para. 2) : _____
2. Each (para. 3) : Each _____
3. they (para. 4) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. going from one place to another killing or using violence, stealing and destroying (para. 1) (adj.) : _____
2. benefit, advantage (para. 1) (n.) : _____
3. built (para. 2) (v.) : _____
4. forced to leave (para. 4) (v.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. According to legends, the Great Wall of China can be seen from the moon.

T F 2. The Great Wall of China has always been a sign of Chinese genius and will.

T F 3. During the construction of the Wall, some of the workers were made to serve as guards to provide early warning of invasion.

T F 4. The Wall has survived with all its sections today.

D. Mark the best choice.

1. The Great Wall was built _____ years ago.

   a) 1,000
   b) 200
   c) about 4,500
   d) over 2,000

2. The Great Wall _____.

   a) is now comprised of individual sections built by different dynasties
   b) reflects China's evolution
   c) was built by people who willingly worked in its construction
   d) began to be built during the Qin dynasty

3. During the Ming dynasty, _____.

   a) small garrison towns and blockhouses were built
   b) the Portuguese bought guns and cannons from China
   c) the Empire was dominated by the Huns
   d) watch towers were added to the Wall

4. Which of the following is **NOT** one of the factors that made it possible for both the Mongols and the Manchurians to take power in China?

   a) the void of power
   b) the poverty of the people
   c) extended wars
   d) weakness in the government

151 ENGLISH

1 English is spoken by more than a quarter of the world's population. It is spoken as a mother tongue in the UK, in former colonies such as Australia and New Zealand, and by the vast majority of the North American population. It is a second or official language in most of the former Empire, for example, Ghana and Singapore, and it is studied as a foreign language all over the world. This has made it a truly international language: it is the language of shipping and aviation, of science and technology, and of commerce. But how did the language spoken by the population of a small island in the Northern Hemisphere reach such widespread use?

2 English has not always been the language of the British Isles: until the fifth century AD the British Isles were populated by a race called the Celts, whose language lives on in Celtic languages such as Gaelic and Welsh, the former being spoken in Scotland and the latter in Wales. In 449 AD the British Isles were invaded by Germanic tribes from the coast of what is now North Germany and Denmark. One of these tribes -the Angles- gave their name to the language that was to become English. During the next 150 years, these warriors drove the Celts to the western and northern extremities of the islands and settled in the area now known as England. For nearly three hundred years **their language** spread.

3 Between 750 and 1050 AD, the Vikings, from present-day Norway, colonized the north of England; while it is difficult to evaluate the effect of Norse on Old English because of the similarity of the languages, certain traces remain, such as place names ending in *-wick*, and words starting with *sk-*, such as *sky*. The Norman invasion of 1066 changed the course of the English language by bringing to England both Norman French and Latin, thus dividing the country linguistically between the educated classes with French or Latin and the common people with only English. As a result of this linguistic mix, English has become a language with a huge vocabulary full of nuances, often with three or four ways of expressing the same idea.

4 **Its introduction** to the New World in the 17th century resulted in this language becoming the second oldest version of English—and the most widely spoken—American English. In 1620, the Pilgrim Fathers, escaping to a land of religious freedom, left Plymouth on *The Mayflower* and settled in Massachusetts. Many other migrations followed and more settlements were founded on the north-eastern seaboard. In the 1720s, another large group of immigrants arrived on the New England coast from the northern part of Ireland, fleeing from religious discrimination. These farmers were not well received in New England, and moved further south to Pennsylvania, from where they moved once more to the western frontiers, this time to buy their own farmlands. After this the two Englishes—in the British Isles and in America—developed along their own paths, giving us the two distinct dialects we know today.

5 Early pioneers did not only head west; they also went east and south. In 1770, James Cook sailed *The Endeavour* into what is now called Queensland, Australia. In 1788, the first group of immigrants from England arrived and set up the first colony. In the late 18th and 19th centuries a large number of Irish also immigrated to Australia. Also in the 1700s pioneers traveling south established a colony in the southern lands of Africa, where English remained the dominant imperial language until the late 19th century, when the Boer War established the predominance of Afrikaans in South Africa. English is now considered a second language for the majority of the white population in South Africa.

6 The colonization of America, Australia, New Zealand and South Africa were all very much at the expense, linguistically as well as in other ways, of the indigenous races—American Indians, Aborigines, Maories and Zulus respectively. However, a different type of colonization—based on commerce rather than immigration—took place in other areas, particularly South-East Asia. In India, settlements were first established in 1600 by the East India Company, and by the end of the 18th century it controlled most of the commercial life in India. In the early 19th century the company was dissolved, but by this time India had become the keystone of the British Empire, and the Indian population had begun to learn English in order to find employment in the new order. In India, English now shares the status of official language with Hindi, and it is spoken by over 70 million people—more than the entire population of the British Isles.

A. What do the following refer to?

1. their language (para. 2) : the language of _____
2. Its introduction (para. 4) : the introduction of _____
3. it (para. 6) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. common (para. 1) (adj.) : _____
2. judge (para. 3) (v.) : _____
3. move (para. 5) (v.) : _____
4. native (para. 6) (adj.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. English is spoken as a mother tongue in New Zealand, which was once a colony of the British Empire.

T F 2. Language of the Celts still survives in the languages spoken in Scotland and Wales.

T F 3. The influence of the Vikings, who colonized the north of England between 750 and 1050 AD, can still be seen in all English place names.

T F 4. In 1770, early pioneers sailed east on *The Endeavour* and reached present-day Australia, where they set up the first colony.

D. Fill in each gap using the information in the text.

* In spite of the great linguistic influence of the Norman invasion, (1)_____ did not adopt French or Latin.
* The reason why Pilgrim Fathers escaped to the New World was that they wanted to have (2)_____.
* Farmers who came from the (3)_____ weren't welcomed in New England; therefore, they moved to Pennsylvania.
* After (4)_____, which broke out in the late 19th century, (5)_____ became the dominant language in South Africa.
* The type of colonization in India was different from the ones in New Zealand or South Africa in that it was based on (6)_____.

IMPORTANT PEOPLE

152 J.Y. COUSTEAU

"The reason I love the sea I cannot explain – it's physical. When you dive, you begin to feel like an angel. It's liberation of your weight." J.Y. Cousteau

1 Jacques-Yves Cousteau was born in Saint-Andre-de-Dubzac, France, on June 11, 1910. He always loved the water and spent much of his early childhood near it, swimming and tinkering with gadgets such as underwater cameras and mechanical toys. In his early teens, Cousteau became fascinated with films. He saved his money and bought a home movie camera. In high school, Cousteau became bored with school and began to cause trouble. As a result, his parents sent him to a strict boarding school. After high school, in 1933, he entered the French Armed Forces. It was during this time that he began his underwater explorations and began working on a breathing machine for longer dives. In 1937, Cousteau married Simone Melchoir, and they had two sons. Two years after their marriage, Cousteau fought for the French in World War II. During the war, he still found time to continue his underwater work. In 1943, he and French engineer Emile Gagnan perfected the aqualung, which allowed a diver to stay underwater for several hours. Divers used the aqualung to locate and remove enemy mines after World War II.

2 Cousteau was named a *capitaine de corvette* of the French Navy in 1948, and two years later he bought the boat Calypso, part ocean-going lab and part yacht, **which** would soon become synonymous with Cousteau and his underwater adventures. To finance his trips and increase public awareness of his undersea investigations, Cousteau produced numerous films and published many books. In 1956, with the help of Calypso and her crew, Cousteau's position as the world's most famous marine biologist was cemented when he received an Academy Award for his undersea documentary, The Silent World.

3 Because of his many projects, Cousteau retired from the French Navy. In 1957, he became director of the Oceanographic Museum of Monaco and founded the Undersea Research Group at Toulon. In 1968, Cousteau was asked to make a TV series. Of the 120 documentaries Cousteau completed in his lifetime, this television series, called The Undersea World of Jacques Cousteau, was the most important **one**. This series brought unforgettable images into millions of homes and contributed to a deeper understanding of a part of the world few people ever visit. In 1974, Cousteau started The Cousteau Society to protect ocean life. The membership of this non-profit group has grown to include more than 300,000 members worldwide. On January 11, 1996, the Calypso sank in Singapore harbor. When Jacques-Yves Cousteau died on June 25, 1997, the world lost more than just an esteemed biologist and oceanographer.

A. What do the following refer to?

1. which (para. 2) : _____
2. one (para. 3) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word..

1. small tools or machines (para. 1) (n.) : _____
2. closely connected (para. 2) (adj.) : _____
3. made stronger (para. 2) (v.) : _____
4. admired, respected (para. 3) (adj.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. Cousteau started working on the aqualung before his marriage.

T F 2. Cousteau couldn't work underwater during the Second World War.

T F 3. The aqualung continued to be used after the war was over.

T F 4. The Calypso is still used as an ocean-going lab.

D. Answer the following questions.

1. Why was Cousteau sent to a strict boarding school?

_____

_____.

2. What did Cousteau do in 1939?

_____

_____.

3. Why did Cousteau produce so many films?

_____

_____.

4. What was Cousteau's first project as the director of Oceanographic Museum?

_____

_____.

5. What was the purpose of the Cousteau Society?

_____

_____.

153 ORSON WELLES

1 The Beverly Hills Hotel is one of Hollywood's most celebrated meeting places for people in the film business. It was here that film director Orson Welles met American journalist John Rosenbaum for a long interview. Their six-hour meeting resulted in one of the finest biographies written about Welles. Rosenbaum's book, published in the late 1970s, gives us a lot of information about the life of this complex man.

2 Welles was born into a respectable middle-class family and became famous as a piano virtuoso in his childhood. In his teens, he wanted to be a painter, but while he was in Ireland he had to earn money, so he started acting. Then he became a theatre director and made a name for himself with stage productions such as "Julius Caesar". However, it was only after a successful period on the radio that Welles won a contract with RKO Pictures and began his career in the cinema.

3 Rosenbaum's book suggests that all this may surprise people who think of Welles as the maker of *Citizen Kane*, the famous film which some critics still refer to as the best film ever made. They say that a director can make such a film only at the end of his career. *Citizen Kane* looks as though it was made by somebody with a lifetime of experience in the cinema. Actually, when it was made, Welles was inexperienced in cinema and extremely young – he was only 25.

4 There is no doubt that the film is remarkable, but it owes its success not only to Welles but also a skilled group of people who helped him. Greg Toland, perhaps Hollywood's best cameraman, helped Welles to film it. Welles worked on the screen play with the respected writer Herman Mankiewicz. He knew the editor and all the actors well, and had a good relationship with them. He believed that the director must think of himself as somebody at the service of the actors and the story.

5 None of Welles' later films became more successful than *Citizen Kane*. Critics thought other projects could not match the success of his first film. This made him feel that Americans did not like him. He spent more time in Europe than in Hollywood, where he only made a few films. He had a difficult time collecting money for these few films because his films did not sell well. He became overweight and started to make money by acting in films he hated. However, he continued to bring a certain quality to everything he did. He died of a heart attack at a friend's house in California at the age of seventy.

A. Mark the following statements True (T) or False (F).

T F 1. Welles made *Citizen Kane* at the end of his career in the cinema.

T F 2. *Citizen Kane* was the best film Welles made.

T F 3. It was difficult for Welles to find money for making films after *Citizen Kane*. .

B. Fill in each gap using the information in the SECOND paragraph.

Welles grew up in a / an (1)_____. As a child, he was very good at (2)_____. When he was a teenager, he (3)_____ to earn money although he wanted to be a painter. He became famous as the (4)_____ of many plays like "Julius Caesar". After his successful work on the radio, his (5)_____ started with the contract which he made with RKO Pictures.

C. Mark the best choice.

1. Rosenbaum _____.
   a) wrote a book about Welles' Hollywood years
   b) was in the film business like Welles
   c) finished Welles' biography in six hours
   d) interviewed Welles at the Beverly Hills Hotel
2. While making *Citizen Kane*, Welles _____ .
   a) wrote the screen play alone
   b) worked with Hollywood's best cameraman
   c) had several problems with the actors
   d) had enough experience in the film business

154 ALFRED NOBEL: A MAN OF PEACE

1 The headline in the newspaper announced the death of Alfred Nobel on April 13, 1888. The reporter called him a salesman of death, "The Dynamite King," because he had invented the powerful explosive dynamite. In fact, Alfred Nobel's dynamite business had made him a rich man. The newspaper story continued, giving Alfred Nobel's age, nationality, and other information about his business. However, the words "The Dynamite King" were all that the 55-year-old Swedish man read.

2 Alfred Nobel put the newspaper down. No, he wasn't dead—his brother Ludwig had died the day before, and the French newspaper had made a mistake. All the same, Alfred Nobel was disappointed. Was this the way the world was going to remember **him**? He didn't like that idea at all. He had spent his life working for peace in the world and he had invented dynamite to achieve this aim. He hated violence and war. He believed that if countries had the same powerful weapons, they would see how impossible war was, and wars would end. In fact, this was a popular idea of his day.

3 Alfred Nobel believed that he had invented dynamite at a perfect moment in time. Before the invention of dynamite, a lot of people working in the field of construction lost their lives because other explosives were dangerous to use. They needed a safe, powerful explosive like dynamite to blow up stone in order to construct buildings, dams and roads. The use of dynamite saved the lives of workers and, thus, is considered a turning point in the history of construction.

4 Nobel was very upset about the image that the world had of him, but he did not know what to do about it. He thought about this problem for years. He wanted to think of the best way for people to use his fortune of nine million dollars after his death. Then, in 1895, an adventurer named Salomon August Andrée decided to make a journey to reach the North Pole. People all over the world were excited about Andrée's plans, which continually appeared in newspapers in those days. Nobel read about his plans, too, and had an inspiration. He thought he could use his fortune to encourage people who work for the good of the world. He wrote his Last Will and Testament. In his will, he told people to use all his money for a yearly award to honor leaders of science, literature and world peace. He stated that these leaders could be men or women of any nationality.

5 Alfred Nobel died on December 10, 1896, at the age of 63. He was unmarried, and had no children. People all over the world wondered who was going to get Nobel's money. They were surprised when they learned about Alfred Nobel's plan to give yearly prizes in the fields of physics, chemistry, medicine, literature, and peace. The first Nobel Prizes were given in 1901, and **they** very soon became the greatest honor that a person could receive in these fields. In 1969, an award for economics was added.

6 The report of Alfred Nobel's death had been a mistake, but the decision that he made because of this error gave the world the image he wanted. Alfred Nobel established the Nobel Prizes, and the world thinks of him the way he wanted to be remembered: Alfred Nobel- a man of peace.

A. What do the following refer to?

1. him (para. 2) : _____
2. they (para. 5) : _____

B. Mark the following statements True (T) or False (F).

T F 1. Alfred Nobel earned a lot of money from his dynamite business.

T F 2. Alfred Nobel invented dynamite to stop wars.

T F 3. The first Nobel prizes were given only to the Swedish leaders of science, literature and world peace.

T F 4. Until 1969,a Nobel Prize was not given to people who worked in the field of economics.

C. Answer the following questions.

1. What disappointed Alfred Nobel in the newspaper story?

_____

_____.

2. What was the main difficulty in the field of construction before the invention of dynamite?

_____

_____.

3. Today, how do people remember Alfred Nobel?

_____

_____.

D. Fill in each gap using the information in the text.

After reading the newspaper story, Alfred Nobel thought for a long time how to change (1)_____. He wanted (2)_____ to be used in the best way after he died. One day when he read in the paper about Salomon August Andrée's plans to (3)_____, he decided to use his money to (4)_____. This is how the Nobel Prize was established.

155 A PEACEFUL REVOLUTIONARY

1 Today, when people think about revolutions and their leaders, they think about people like Fidel Castro, Mao Tze-Tung, Ayatollah Khomeini or Nelson Mandela. Some of these leaders were extremely successful, like Mustafa Kemal Atatürk, but others were complete failures, like Danton. One of the most powerful revolutionaries in the history of mankind was Mahatma Gandhi. His ideas influenced both his own country and the world.

2 Gandhi was born in India in 1869. His father was a minister in the government of Gujarat. As his father wished, Gandhi became a lawyer. His mother was a deeply religious Hindu, and her beliefs strongly influenced Gandhi throughout his life. Gandhi was a Hindu, but the religious ideas of the Jains (a small, peaceful religious group) also affected him. **They** were the source of his most important principles: non-violence, religious tolerance and fasting.

3 When Gandhi was a young man, he went to England to study law. His stay in England was very important because he met many prominent British intellectuals there. They introduced him to many new, Western ideas. In 1893, he went to South Africa to practice law. His experiences during his first days in South Africa greatly affected him. The Whites there treated the Indians and Blacks very badly. While he was speaking in court during a trial, he could not wear his turban, a white piece of cloth worn on the head. While he was traveling on a train, he had to leave the first-class compartment because he was not White. He took these as personal insults. In 1894, the government of Natal (one of the states of the Union of South Africa) decided to end the political rights of the Indians. Gandhi started a campaign against this policy. This was the beginning of his political life. He used a special political method of non-violent resistance and civil disobedience. This disobedience had to be peaceful and he should protest against the police non-violently.

4 After living abroad for more than twenty years, Gandhi returned to India and entered politics there. In 1919, the British government of India (India was a British colony then) began to put Indian nationalists in prison without trial. For the same reason, Gandhi was also in prison for two years. While he was **there**, political feelings in India changed. Before he went to England, the Hindus and the Muslims were working together to make the British leave India. However, later, religious differences separated the two groups. Gandhi believed that religious tolerance was very important for the success of India's goal of independence from Britain. In 1924, he fasted for a period of three weeks until the Hindus and Muslims began working together again. In other words, he did not eat anything at all during this time. They stopped fighting because they loved and respected Gandhi and returned to political cooperation.

5 Gandhi not only fought against the British but he also fought against social problems in India. He tried to protect the poorest people – the *untouchables*. These people had no political or social rights before Gandhi's time. He introduced new ideas to them. **They** decided to sell clothes and tools they had made as a means of earning a living. These reforms boosted the economy of the country. He played a major role in introducing a new educational system, which greatly helped the untouchables because they had no schools before this time.

6 Although Gandhi was successful in putting social reforms into effect, he was unable to solve the problem of religious intolerance. Because the Hindus and Muslims could not live together peacefully, the British colony divided into two states, India and Pakistan, in 1947. There was a massive forced migration of people according to religion between the two new countries. During this time, there was much violence, and unfortunately, Gandhi also became a victim of it. A young Hindu fanatic shot and killed him in 1948.

7 The world still remembers Gandhi as a great leader and thinker. He mixed Eastern and Western ideas. People throughout the world are still using his political method of non-violent resistance to gain political rights. Many people think that Gandhi was not only a hero but also a saint, a truly good man.

A. What do the following refer to?

1. They (para. 2) : _____
2. there (para. 4) : _____
3. They (para. 5) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. unsuccessful people (para. 1) (n.) : _____
2. improved (para. 5) (v.) : _____
3. someone that suffers from something or dies as a result of something (n) (para. 6) : _____.

C. Fill in each gap using the information in the text.

Gandhi studied law in England. This was significant in his life because he learnt about (1)_____ from well-known and important British intellectuals. Later, he went to South Africa. The way the Whites treated the Indians and Blacks in South Africa influenced Gandhi a lot. According to him, not being allowed to (2a)_____ and having to (2b)_____ were personal insults. In 1894, Gandhi campaigned against the government of Natal when the (3)_____ _____ there were under threat. He gave a start to his political life with this campaign. Two of the methods he used in his political life were (4a)_____ and (4b)_____.

After his return to India, Gandhi actively entered politics and he achieved success in solving the (5)_____ in India. The poor in India got (6a)_____ and (6b)_____ rights during his time.

D. Answer the following questions.

1. Why did Gandhi fast for three weeks?

_____

_____.

2. Which problem remained unsolved despite Gandhi's efforts?

_____

_____.

156 Sir Ernest Shackleton, The Explorer

1 Two of the most difficult places to explore on Earth are the North and South Poles because of the extreme weather conditions **there**. There are many stories of bravery and endurance in the history of Polar exploration. One of the most extraordinary was Sir Ernest Shackleton's journey to the seas of the Southern Hemisphere.

2 Shackleton, an Irishman, was born in 1874. He worked on merchant ships for some time before he became an officer in the British Navy. In 1901, he joined Captain Robert Scott, another famous explorer, on his first Antarctic expedition. Their final aim was to reach the South Pole, but they couldn't. In fact, this was not possible until 1912. In 1908, Shackleton went on a second expedition and reached Latitude 82° 23' South on January 9, 1909. He was the first man to reach that far south.

3 Finally, in 1914, Shackleton became the leader of his own expedition. He wanted to cross the Antarctic continent from the Atlantic side to the Pacific side. Unfortunately, his ship *Endurance*, got stuck in an ice pack, which carried the ship northwards for ten months before **it** finally crushed the ship.

4 The explorers and seamen on the *Endurance* were able to get into two small whaleboats before the ship sank. They were able to save only a small amount of equipment and food. They drifted northward among the ice pack for five more months until they finally reached Elephant Island. On the island, they had only their boats for shelter. They caught seals and lived on seal meat for many months. No one knew that they were even alive.

5 When the weather improved on Elephant Island, Shackleton decided to go to get help. He chose five of his fittest men and took one of the whaleboats. The other 22 men were not strong enough to make the journey, so Shackleton decided that he would have to leave them behind and rescue them later. Although they had very little food, Shackleton managed to cross one of the world's stormiest seas. He had to sail almost 2,000 kilometres to reach the Island of South Georgia, the nearest island on which people lived.

6 However, Shackleton's problems did not end when they reached South Georgia. They landed on the wrong side of the island, away from the whaling station. They were too weak to go to the other side by boat, so Shackleton decided to cross the island on foot. They crossed over the snowy mountains and reached the whaling station in 24 hours. It was a great success considering the fact that a British army team followed the same route in 1980, and it took them longer to **do this,** despite their modern equipment.

7 The story is still not finished! There were still 22 men on Elephant Island. While they were waiting for Shackleton, they almost lost hope. They had many difficulties. Shackleton attempted to rescue them four times, but he had to give up each time because of bad weather. Finally, he was successful the fifth time – a full two years after the unlucky expedition started.

8 After Shackleton and his men returned to England, he began organizing another expedition. Unfortunately, he never completed the journey. He died while he was trying to get to the Antarctic again in 1922. His men buried him at sea, the proper place for such a courageous man who had so many adventures at sea.

A. What do the following refer to?

1. there (para. 1) : _____
2. it (para. 3) : _____
3. do this (para. 6) : _____

B. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. went down under the water (para. 4) (v.) : _____
2. moved with the current (para. 4) (v.) : _____
3. tried (para. 7) (v.) : _____

C. Mark the following statements True (T) or False (F).

T F 1. It took Shackleton and Captain Robert Scott 11 years to reach the South Pole.

T F 2. Shackleton died while he was preparing for another expedition to the Antarctic.

D. Fill in each gap using the information in paragraph 5 and 6.

When the weather got better, Shackleton left (1)_____ with five of his fittest men on a whaleboat to bring help. He had to leave twenty-two of his men behind because they were too weak (2)_____. Shackleton and his men (3)_____, but they were still able to get to South Georgia. Unfortunately, the side they landed on was (4)_____. Therefore, they spent another day reaching it on foot.

E. Answer the following questions.

1. Why was Shackleton's second expedition important in history?

_____

_____.

2. What did Shackleton hope to do on his 1914 expedition?

_____

_____.

3. Why did Shackleton fail to rescue his 22 men on Elephant Island in his first four attempts?

_____

_____.

RECREATION & LEISURE

157 THE VIRTUAL BEACH BUT REAL FUN

1 From Japan, the country that brought you the virtual pet and the virtual pop star, comes the latest leisure idea: the virtual seaside resort. This is the Ocean Dome at Myazaki, southwest of Tokyo, the biggest artificial indoor beach in the world, where overstressed Japanese office workers can kick off their shoes and walk on the beautiful cool white sand. Yet, it is not real sand—it's fake, made entirely from crushed stone.

2 In fact, everything under the dome is fake, from the 140-meter-long beach to the air temperature—kept at a steady 30°C by an incredible giant, ultra-modern central-heating system. If that's too hot for you, you can order an attractive plastic palm tree to provide shade. With fake waves and fake sunshine, but not fake crowds, the Ocean Dome has become such a craze that the average Japanese office worker usually has to share it with about 10,000 other sun seekers.

3 The fake sea covers about three times the area of the beach and has 15,826 tons of water—that's about the same as ten Olympic swimming pools. It is kept at a constant temperature of 28 °C.

4 But why spend so much money on a man-made beach when the real thing is free? Well, bathing off the Japanese coast isn't much fun because the sea is cold, polluted, and full of sharks.

5 And after that, what could be better than a run on the ski-slope? Just half an hour from downtown Tokyo, there is a huge artificial ski-slope where even more overstressed workers can practice their skiing on perfect, powdery snow—indoors, of course!

A. Find words in the text that mean the following. Write only ONE word on each line, and do not change the form of the word.

1. constant (para. 2) (adj.) : _____
2. fashion, trend (para. 2) (n.) : _____
3. not real (para. 5) (adj.) : _____

B. Mark the following statements True (T) or False (F).

T F 1. From sea to sunshine, everything is man-made in the Ocean Dome at Myazaki.

T F 2. It is difficult to find shade in the Ocean Dome.

T F 3. There are ten Olympic swimming pools inside the Ocean Dome.

C. Answer the following questions.

1. Write down **two** similarities between the Ocean Dome and the ski-slope.

   a) _____

   b) _____.

2. Write **two** reasons why the Japanese needed to build an artificial beach although their country is surrounded by the sea.

   a) _____

   b) _____.

158 NIAGARA

1 Niagara is a perfect holiday destination and it is one of the world's most popular tourist attractions. It means different things to more than 18 million visitors. To families, Niagara is the Niagara Falls State Park. There is so much to see in the park. You can enjoy a walk, visit the huge aquarium, dine at the Top of the Falls Restaurant or bring the children to the new Discovery Center with lots of activities. To sportsmen, Niagara is more than 40 golf courses and 30 private campgrounds. Also, fishermen love Niagara. They can go boat-fishing on Lake Ontario and Lake Erie and ice-fishing in the bays around Port Dalhousie and Jordan Harbor. Niagara is very famous among young couples. Each year, thousands of couples go to Niagara hand-in-hand to start a new life. They can have a beautiful and enjoyable wedding ceremony at a reasonable price. To newlyweds, Niagara is the honeymoon capital of the world.

2 To almost everyone, Niagara is the most dynamic four-season destination in the world. The long winters can be cold, but the trees with lots of snow are wonderful to look at. Christmas is unforgettable there and, of course, in the spring and summer, flowers are everywhere. The autumn season is wonderful. People enjoy the cooler temperatures after a summer of hot weather. They travel to see beautiful autumn leaves.

3 Niagara has more than 14,000 hotel rooms and lots of bed and breakfast homes to suit every need and budget. Visitors can have a view of Niagara Falls from their window and watch ships from around the world.

4 Niagara is also becoming famous as a dining destination. There are about 450 restaurants. They serve locally-grown food products with local wines.

5 If shopping is an important part of their holiday experience, visitors will love Niagara. Shopping in Niagara is a lot of fun. From large shopping centers to attractive boutiques, from factory outlets to small souvenir shops, Niagara Falls is a shopper's dream come true.

A. Mark the following statements True (T) or False (F).

T F 1. There aren't any activities for children at Niagara Falls.

T F 2. Visitors cannot camp in Niagara.

T F 3. Some young people go to Niagara to get married.

T F 4. In general, the restaurants serve food from all over the world.

T F 5. It is possible to buy various kinds of gifts for friends and relatives in Niagara.

B. Answer the following questions.

1. What can fishermen do in Niagara?

_____

_____.

2. Which time of the year is the best to visit Niagara?

_____

_____.

3. Is accommodation a problem in Niagara? Why (not)?

_____

_____.

159 THE HEBRIDES ISLANDS

1 The Hebrides Islands are in the north-west of Scotland. Not many people live there because it is difficult to make a living in the Hebrides. The land is not good for farming–the people on the Hebrides Islands cannot grow fruits or vegetables there. The Hebrides Islands are not for everyone, but if you like unusual places, these islands can be very interesting to visit. The winters are long, cold and wet. On the other hand, the summers are short, and even summer days are not hot and are often too windy. The water is too cold for swimming. There are not many trees but a lot of rocks. Sometimes the view from the top of the hills is like pictures of the moon. Yet, there is beauty in this wild place. From the beach, you can often see all the way to the top. From the top, you can see far out to the other islands and the open sea. The colors, too, are fantastic. Blue is everywhere. It is in the sky and in the sea. It is in the small flowers that grow on the islands. In the spring, there is also green. In the summer and autumn, there is purple, and often the air is soft and gray with clouds and rain.

2 In these islands, you forget about everything. You forget about your work, and city problems like noise, dirt and traffic. The nights are quiet, since the restaurants close early, and there is not much nightlife. There are not even many hotels. Most visitors stay in guest houses, or 'Bed and Breakfast' places as they are called in Scotland. These are really people's homes. They get money from the tourists for the night, and they serve breakfast to their guests. These homes may be simple, but guests are usually comfortable there. You can meet some friendly people of the islands in this way. It is also a way to learn more about life on the islands.

3 You do not feel much like a tourist in the Hebrides. There are not many historic places. There are no museums and only four or five small shops. In fact, there is not much to do on the Hebrides Islands, but people still visit the Hebrides. They come to walk in this peaceful place. They come for the quiet beauty and the scenery.

A. Mark the following statements True (T) or False (F).

T F 1. The population of the island is small because it is not easy to make money there.

T F 2. People that are interested in seeing a very different place can enjoy visiting the Hebrides Islands.

T F 3. You can see only the open sea from the top of the island's hills.

T F 4. On the Hebrides Islands you don't think about your problems.

T F 5. There are a lot of discos and pubs on the Hebrides Islands.

T F 6. You can have breakfast at the guest houses on the Hebrides Islands.

B. Mark the best choice.

1. The weather on the Hebrides Islands is _____.

a) usually warm but windy
b) never warm and sunny
c) cold and wet most of the year
d) nice in the summer

2. According to paragraph 1, visitors can see all the colors below except _____.

a) gray
b) yellow
c) purple
d) green

3. People usually come to the Hebrides Islands because they want to _____.

a) do shopping
b) visit museums
c) meet people from different countries
d) enjoy the views

160 The New Image Of Museums

1 In recent years, there have been many changes in the way museums present their exhibits to the public. The days of large, dusty rooms full of glass cases with 'DO NOT TOUCH' signs on them are long gone, together with free admission. Until recently, most museums in Britain did not charge admission fees. They received a grant from the government that covered the cost of running the museum. However, these grants have been abolished or reduced. Consequently, many museums now charge for admission and need to attract large numbers of visitors in order to produce the income to maintain the building, pay the staff, finance research, and buy new exhibits. In order to persuade people that it is worth paying for a quite expensive admission ticket, museums have tried to make their exhibitions brighter and more appealing. Many museums, especially those devoted to science and technology, now have 'interactive exhibits,' which means that you can, in fact, touch the exhibits. For example, you can learn how a television camera works by actually using one, or how to operate the controls of an airplane and watch the wings and tail move. Such exhibits appeal strongly to children and encourage them to visit the museum. One of the biggest changes to take place in recent years is that large numbers of teachers are now employed by museums. Their task is to prepare material that makes the museum interesting to children and young people and to advise the museum officials on how to create strong links with schools and colleges.

2 Museums have also introduced new features that appeal to adults. For example, you can join, for an annual fee, a society linked to your favorite museum that will enable you to visit the museum without paying or to visit at times when it is normally closed, so that you can then admire the exhibits when the crowds have gone. These societies usually publish regular newsletters to inform the public about the upcoming exhibitions. Indeed, because of their need to increase their income, many museums can be hired for social events ___ a room full of dinosaur skeletons, old locomotives, or mummies makes an interesting setting for a party. Many museums now have impressive cafés and restaurants. In addition to these, they have large gift shops selling books, reproductions, and models. These are often more crowded than the museum itself. Museums also seek commercial sponsorship as another way of increasing their income.

3 Nowadays, some museums create a realistic environment into which the visitor can enter. An example of this kind of museum is Jamestown in New England, where a 17th century village has been re-created. There are actors in 17th century dress performing 17th century tasks. If you speak to them as you wander around, they will reply using 17th century English accents and vocabulary. At Blists Hill Open Air Museum in England, an entire street from the early 19th century has been re-created, and the visitor can enter commercial and industrial sites from the time of the Industrial Revolution and observe working machinery and old methods of production.

A. Mark the following statements True (T) or False (F).

T F 1. Most museums in Britain used to charge admission fees.

T F 2. The teachers employed at museums are also responsible for making recommendations on how to cooperate with schools.

T F 3. The Jamestown Museum in New England was set up in the 17th century.

T F 4. It's now possible in a museum to observe how things were produced at the time of the Industrial Revolution.

B. Answer the following questions.

1. How do museums make use of the admission fees?

_____

_____.

2. Why is it a good idea to become a member of a museum society?

_____

_____.

3. Besides making exhibitions, for what other purpose can museums be used?

_____

_____.

C. Complete the sentences below using the information in the text.

1. Interactive exhibits appeal strongly to children because, by visiting such exhibitions, they can learn:

   a) _____

   b) _____.

2. It can be inferred from the text that the section that is often more appealing than the museum itself is the _____.

161 THE MAGIC OF THE SILVER SCREEN

1 On 28 December 1895, in a cafe in Paris, the Lumiere brothers, Louis and Auguste, gave a public show. They showed a motion picture for the first time. This event, hardly noticed at the time, marks the beginning of one of the world's major entertainment industries. The earliest films were very short, just snippets in fact, but the audiences were easily impressed. They were very pleased to watch them. Early film makers liked the scenes of wild animals attacking the audience and **those** which showed cowboys shooting straight at them. One film by the Lumiere brothers showed a train arriving at a station. It caused some of the audience to **flee**, that is, to escape in terror, believing that the train would hit **them**.

2 Technical development was very **rapid**, i.e., quick, which made films even more attractive. By 1914, feature films were up to two hours long and most of the techniques used by modern film makers had been discovered. Color films were made in the early 1900s, although they did not become common until the 1940s. Experiments with sound began as early as 1896, but the first film with synchronized sound was 'The Jazz Singer' (1927). Until **that time,** live piano music accompanied performances of silent films. One of the disadvantages of 'talkies' is that if you can't understand the language, you can't understand the film if it is not sub-titled or dubbed. Back projection was being used by 1913 and is still used very effectively in modern films such as 'Superman' (1978). Back projection involves shooting a background scene, projecting **that scene** onto a screen and then filming the actors in front of the screen. In this way, the viewers get the impression that Superman is flying over a landscape that has, of course, previously been filmed from an aircraft. Special effects of various kinds, including the use of models, were introduced by Georges Melies in his fantasy film 'Voyage to the Moon' (1902). Another film that used models effectively was 'King Kong' (1933). The gorilla, which seemed to be as tall as a house, was in fact a 40 cm model. With the technique of stop action (in which the film is started again), first used by Georges Melies, King Kong was made to move fairly realistically. Sometimes models are life-size, like the shark in 'Jaws' (1975).

3 During the first half of the 20th century, going to the cinema was a very popular activity, and audiences were huge. In other words, a great number of people watched movies. From the 1950s onwards, however, audiences **declined** and many cinemas were forced to close as more and more people bought television sets. The film industry introduced several technological innovations against television, such as ultra-wide screens, stereophonic sound, and, less successfully, films that could be seen in three dimensions if special glasses were worn. Nowadays, films are technically **advanced,** and this developed technology is advantageous, since it provides an experience that television cannot match.

A. What do the following refer to?

1. those (para. 1) : _____
2. them (para. 1) : _____
3. that time (para. 2) : _____
4. that scene (para. 2) : _____

B. Guess the meanings of the following words using the clues in the text.

1. flee (para. 1) : _____
2. rapid (para. 2) : _____
3. declined (para. 3) : _____
4. advanced (para. 3) : _____

C. Mark the following statements True (T) or False (F).

T F 1. The film industry began with the Lumiere brothers' public show in 1895.

T F 2. Color films became popular in the early 1900s.

T F 3. Georges Melies was the first person to use models in the filming industry.

T F 4. Film makers used a life-size model of a gorilla very effectively in 'King Kong.'

T F 5. The technological innovation of three-dimension films was very successful.

D. Answer the following questions.

1. Which problem do film makers solve by dubbing or writing sub-titles for talkies?

_____

_____

2. Why was it necessary to use the back-projection technique in 'Superman'?

_____

_____

3. Which technique made King Kong move realistically?

_____

_____

162 CINEMA

1 The origins of cinema as we know it lie in a machine patented in 1891 by Thomas Edison __ the kinetoscope. This machine rotated rapidly showing different frames, thus giving the impression of a moving picture. Early films were produced solely to show off the ingeniousness of the machines that projected them, and were only one or two minutes long, but by the early 1900s films started to tell stories. During the years of the First World War, American cinema flourished, and technical innovations were made. By 1927, the use of sound on film became commercially **viable,** and the film *The Jazz Singer,* which was recognized as the first successful sound movie, was released.

2 It was in the late 1920s that the Hollywood golden era really began. With the advent of commercial film-making in the early 1900s, various film production companies had started up in the United States in fierce competition with each other. Many of these companies became associated with stars still popular and famous today, for example, Charlie Chaplin, who became a founder in 1919 of United Artists. By the 1930s, most of these studios were in financial difficulties because of the Depression. They had to make certain compromises to survive, which in part led to the development of film genres. A genre is a number of films, all containing characteristics in common, including sets and stars. Certain studios started producing a number of films from one genre in order to use the same sets, and to use contracted stars who were becoming popular with audiences. For example, Warner Brothers was associated with a large number of gangster films and Universal with horror films, while **others** were associated with melodramas or musicals. It was this studio system that typified the golden age of Hollywood, but by the 1950s it was somewhat in decline, with a stronger European film industry and the rising popularity of television hitting their box-office takings.

3 One continuing feature of the studio system is that of the film star. Studios **vied** with each other to find and contract popular film stars as a way of increasing audience share. Some of the biggest stars of the 1930s and '40s were closely associated with particular studios, for example, Rita Hayworth with Columbia. Through the 1940s and '50s the popularity of stars such as Humphrey Bogart, Marilyn Monroe, and John Wayne continued to grow. Film stars became part of people's everyday lives and began to take an interest in other areas, for example, politics. As everyone knows, Ronald Reagan, a movie actor of the '40s and '50s, was voted President of the US in 1980!

4 Actors are not the only stars of the film industry. Certain film directors have achieved star status in the past, such as Orson Welles, whose innovative *Citizen Kane* is the only film to appear consistently in the critics' top tens, and Alfred Hitchcock, who really gave the thriller genre its name with films such as *Psycho* and *Frenzy.* Contemporary directors are equally as popular, and are finding success in areas other than feature films, for example, television and pop promotional videos.

5 Not all cinema comes from Hollywood. Much early European cinema has, in fact, had a lasting influence on Hollywood with, for example, the low-key lighting and strange camera angles of German Expressionism being transferred to Hollywood 'film noir.' Apart from Hollywood cinema, over the last 40 years we have seen very strong film industries emerge from many countries. In some cases, these herald new movements, for example, the French New Wave and Italian Neo-Realism; in others, they feature particular directors, such as Ingmar Bergman in Sweden and Akira Kurosawa in Japan. In fact, while most people believe Los Angeles to be the biggest 'production village,' that honor goes to Bombay, India, which has the most prolific film industry of any country in the world.

6 In many countries, film-makers take their role in society more seriously than they do in Hollywood. European cinema focuses on contemporary issues, such as the sociology of the inner city, violence, poverty, the psychology of marriage, and racism. Possibly the most striking developments in the film industry over the years, however, have been **those** in technology and special effects, bringing us images of space travel and strange creatures in films such as *Star Wars,* and the mixture of reality and animation in *Who Framed Roger Rabbit?* This film did little more than to carry on the tradition of the greatest cartoon film-maker of all time—Walt Disney, who was one of the most financially successful producers ever.

A. Mark the best choice.

1. 'others' (para. 2) refers to other _____.

   a) stars
   b) genres
   c) films
   d) studios

2. 'those' (para. 6) refers to _____.

   a) contemporary issues
   b) developments
   c) film-makers
   d) images of space travel

3. 'viable' (para. 1) probably means _____.

   a) valuable
   b) willing
   c) possible
   d) scarce

4. 'vied' (para. 3) probably means _____.

   a) competed
   b) discussed
   c) agreed
   d) contacted

5. The very first films that formed the basis of cinema _____.

   a) were shown using a machine called a kinetoscope
   b) were telling stories
   c) showed the genius of the film producers
   d) were at least one or two minutes long

6. Many film production companies became associated with popular and famous stars _____.

   a) in the late 1800s
   b) in the early 1900s
   c) in the 1950s
   d) in the 1980s

7. What made film production companies produce films from one genre only?

   a) The advent of commercial film-making.
   b) The competition among the film production companies.
   c) The financial difficulties due to the Depression.
   d) The association of some popular and stars with certain companies.

8. Which of the following is **FALSE** about a film genre?

   a) It consists of a number of films with common characteristics.
   b) The same sets are used.
   c) It was a notion developed by the European film industry in the 1950s.
   d) Contracted stars popular with audiences act in the films.

9. What was one of the effects of the rising popularity of television and a strong European film industry in the mid-20th century?

   a) Some film directors gained success and popularity.
   b) The low-key lighting and strange camera angles were no longer used.
   c) Some film stars began to be interested in other areas.
   d) The Hollywood golden era went into decline.

10. European cinema _____.

   a) deals with modern-day topics
   b) has the most prolific film industry
   c) has been greatly influenced by Hollywood
   d) flourished during the First World War

B. Answer the following questions.

1. Why did the writer mention the presidency of Ronald Reagan?

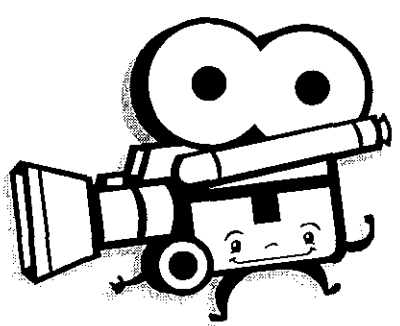
   _____

   _____.

2. How are contemporary film directors different from those in the past?

   _____

   _____.



APPENDICES

APPENDIX A.
LOGICAL SEQUENCE

1. Although Karen is not very good at using the computer, she _____.

   a) can't use it to perform complicated operations
   b) she makes her secretary do all the computer work
   c) knows the basics of computer use
   d) she avoids using it as much as she can

2. _____. However, most had to leave before the end.

   a) The audience was bored as the talk was too theoretical
   b) The students were quite interested in the talk
   c) Some of the participants couldn't hear the speaker
   d) The speakers were upset with the audience

3. It's been ten days since the accident but there is still no news of the missing sailor. Therefore, _____.

   a) the rescuers have given up all hope of finding him alive
   b) it is quite possible that he survived
   c) his boat was found three miles off the coast
   d) the rescue team did a good job searching for him

4. One advantage of being the oldest daughter in the family is that it has trained me for my own family in the future. For example, _____.

   a) my brothers always make me do their homework
   b) I do not have to do any of the boring housework at home
   c) I never argue with my little brothers
   d) I know how to cook and iron

5. Although Kathleen is not very good at writing letters, _____.

   a) I have no idea where she's living nowadays
   b) we haven't been in contact since about 1997
   c) she's used them to keep in touch with her best friend over ten years
   d) I never have much to say to her on the phone either

6. _____; however, hardly any of them stayed until the end.

   a) There weren't many students in the class
   b) Quite a few people attended the meeting
   c) The topic of the lecture was not very interesting
   d) Not many people attended the conference

7. No news concerning the fact that he had been rescued after the storm reached the village. Therefore, _____.

   a) it was quite a shame that he had never learnt to swim very well
   b) his wife refused to remarry within a year of the accident
   c) everyone assumed the sailor had drowned at sea
   d) the coast guard maintained that he was wearing a life jacket.

8. _____ because it was so windy and noisy.

   a) This hurricane did not cause significant damage
   b) The storm caused high winds and a lot of rain
   c) Visibility was very low during the blizzard
   d) I had great difficulty staying asleep last night

9. A doctor's prescription is required in order to purchase most medicines in this country. That is, _____.

   a) most medicines cannot be sold without a prescription in this country
   b) in this country most of the doctors prescribe some medicines
   c) in this country medicine can be purchased with prescriptions instead of money
   d) most of the medicines in this country can be prescribed without money

10. Setting up your own business could have many advantages. First, you are your own boss; that is, nobody gives you orders. Moreover, the money that you make depends on how hard you work. In addition, _____.

   a) you have steady and guaranteed income
   b) there is no one to tell you what to do
   c) you are able to choose who you work with and when you work
   d) you may have to work longer hours to meet a deadline

11. Married women should also work outside the home because of economic and psychological reasons. First of all, with today's living conditions, it is not possible to meet the family expenses with only one person's salary. If a wife also works, she can contribute to the family budget as well. Apart from this, married women _____.

   a) who always stay at home may get bored with the monotony of life, which badly affects their psychology
   b) can busy themselves at home by doing some handicrafts such as knitting and sewing
   c) may find a job which they can do at home
   d) spend more time with their children unless they work in a job

12. Many people claim that they have been abducted by aliens. They also say that those aliens have performed some experiments on them. Yet, _____.

   a) they all give almost the same details about what they have seen or what has happened
   b) there is no scientific evidence proving the existence of other life forms
   c) ufologists state that they have a lot of evidence which confirms these people's claims
   d) aliens are believed to visit the Earth in order to investigate human behavior

13. Despite its bad reputation, it is not advisable to completely eliminate fat from our diets. On the contrary, _____.

   a) too much fat can lead to a variety of health problems
   b) it is difficult to give up fat as it provides 40% of the food energy in our diet
   c) 10% of the total calories that a person needs to take in a day should come from fat
   d) if you eat fat free foods, you will lose weight

14. Earthquakes are natural events which we have no control over. On the other hand, _____.

   a) many lives are lost due to the poor construction material used in making buildings
   b) most earthquakes go unnoticed if they are not measured on a seismograph
   c) there are some measures that can be taken to minimize death and damage
   d) some animals like birds are believed to sense the approaching earthquake

15. The guitar is a popular musical instrument because it is easy to learn. Moreover, _____.

   a) it requires a certain amount of talent
   b) a beginner needs lessons in order to master the notes
   c) it is a string instrument which usually has six strings
   d) it can be used to play a wide range of music

16. In the last two centuries, the world has experienced a population explosion. Fortunately, _____.

a) life expectancy has increased thanks to improvements in medicine
b) the agricultural revolution made it possible for the world to feed its people
c) the most heavily populated areas are in the developing countries of the world
d) growing more food for the increasing population has become an important concern

17. A standard dictionary is the most practical and least expensive reference book a person can buy. On the other hand, _____.

a) any person can learn to use a dictionary and increase his word power
b) the way a word is pronounced can be the result of many historical reasons
c) the information it contains is limited to the meanings and pronunciations of words
d) frequent use of a dictionary will make a person aware of all the information it includes

18. Intelligence tests do not show a student's educational potential. Consequently, _____.

a) these tests show great differences and can bring about various results
b) the results of such tests often reveal future possibilities to students and families
c) a student's marks in school and his emotional health can give more guidance
d) they should not be solely relied upon by educationists or parents

19. When they go to a foreign country for educational purposes, some students experience severe culture shock. In fact, _____.

a) the successful ones decide to stay until they have finished their studies
b) almost one third of the students studying abroad decide to return home after the first semester
c) most of these students get over their shock once they have made some friends
d) mild culture shock is a universal experience while deep depression is not

20. Today, the advantages of computers are well-known. However, _____.

a) you should buy the cheapest software available
b) they help children think and act more quickly and concentrate longer
c) one should be aware that computers can be misused
d) the computer games that children play can be educational

21. There is a lot of carbon monoxide in the air where there is a lot of traffic. Since carbon monoxide prevents red blood cells from carrying oxygen all over the body, _____.

a) most people try to avoid driving during rush hours in order not to get stuck in traffic
b) governments have to introduce new laws so as to prevent air pollution
c) people in traffic jams may get headaches or feel dizzy
d) the exhaust fumes that cars emit are one of the main causes of air pollution in big cities

22. The use of laser beams for a variety of purposes is growing constantly. For instance, _____.

a) the use of lasers in medicine is still distrusted by a great majority of doctors
b) surgeons perform delicate operations by means of laser beams and military scientists use them for defense
c) today laser technology is still in its elementary and theoretical stage
d) as lasers can help solve many problems, scientists call it a 'life-saving' device

23. Most people in the world today are desperately poor. In fact, _____.

a) the government of every country is trying to raise the standard of living of its citizens
b) even the poorest people in the United States are rich compared to most of the people in India
c) almost 75% of the more than six billion people living today suffer from poverty
d) for hundreds of millions of people in the world, poverty means more than not having a car or a TV set

24. The need for surgical operations almost always comes as a severe shock to the patient and his family. In spite of the advances in modern surgery, which make it easier to carry out even the most complicated operations, _____.

a) most people still have an irrational fear of hospitals and anesthetics
b) most patients accept that they need surgical operations
c) scientists have not yet found cures for certain illnesses such as cancer or AIDS
d) today surgeons may even save the lives of people suffering from fatal illnesses

25. The subject of animal testing causes disagreement among people. Those who think animal testing should not be banned claim that products must be tested on animals first to make sure that they are safe for use by humans. In addition, _____.

a) diabetics would not be able to use insulin to keep their illness under control if it hadn't been developed by being tested on animals
b) the discovery of the polio vaccine has given good results and the disease has become very rare in especially developed countries
c) the effects of certain chemicals can be observed more easily on animals, and the results are achieved faster since laboratory animals have a much shorter life span than humans
d) it causes great suffering for animals which are subjected to these tests, and is in fact a cruel practice

26. According to medical opinion, tobacco is an unhealthy product because it is a major cause of lung cancer and is often responsible for heart attacks. However, _____.

a) cigarette advertising should be discouraged because it mainly targets teenagers by showing young beautiful people smoking and having fun
b) the average teenager does not consider the harmful effects of smoking nor the fact that it causes addiction
c) the role of media in informing people about the harmful effects of smoking cannot be denied
d) smoking can have harmful effects on non-smokers who continuously breathe the smoke when they are with smokers

27. Newspapers and magazines play an important role in today's society and are capable of influencing people's lives in many ways. Nevertheless, _____.

a) reading about the lifestyles of the rich and famous is amusing and can help us forget our own problems
b) most of the news that appears in the papers and magazines seems to be just 'organized gossip' rather than valuable information
c) journalists frequently intrude on the privacy of celebrities, photographing them in their most intimate moments
d) as far as politics is concerned, the free press often reveals the truth behind all speeches and accusations

28. Many developing countries have taken measures to reduce their populations by controlling birth rates, and these measures have proved to be successful as birth rates in many of the countries have started to decline. On the other hand, _____.

a) the reduction in population also has economic benefits which help to raise living standards
b) in the past 30 years, the average number of children born to a woman has dropped from 3.1 to just 2.5
c) the first great decline in population growth came in the early 60s, with the development of the birth-control pill
d) in China, the government's one-child policy, which has done a good job of slowing population growth, has created some new problems

29. Imagine a world with no drinking water and no water to wash or cook with. It's hard to imagine this because we use water everyday without even thinking about it, yet there are terrible water shortages all over the world. In fact, _____

a) half of the people in the world don't even have clean water to drink
b) governments can improve this situation by passing laws to stop factories from wasting and polluting water
c) saving the water from our baths and using it for the garden could be one solution
d) if water could be recycled at a low cost, there would be a lot more clean water around

30. Jacques-Yves Cousteau, who was very concerned about the pollution of the seas, established the nonprofit Cousteau Society in order to _____.

a) encourage the protection of marine life
b) develop an interest in diving and undersea photography
c) investigate and understand the mysteries of the oceans
d) help an undersea research team to find sunken boats

31. The pollution of the Mediterranean Sea is creating a real danger for the plant and animal life living there. In addition, _____.

a) thousands of factories dump their chemical wastes into the Mediterranean
b) it is the most popular of all the holiday destinations
c) it threatens the people who inhabit and visit its coasts
d) the worst parts of the sea are the Israeli and Lebanese coast

32. The countries of the Mediterranean have been coming together to save their common sea. However, _____.

a) the people of the Mediterranean have always used the sea for their purposes
b) it will take a long time for any measures to have a real effect
c) scientists say there is still a chance for the quality of the sea to be restored
d) the population has increased around the coasts of the Mediterranean

33. There has been a serious decrease in the population sizes of seabirds on the Pacific Islands as a result of _____.

a) human colonization in the region, causing habitat destruction
b) the programs which encourage the protection of seabird colonies
c) the efforts of authorities and civil organizations to protect seas
d) the increased food availability on the coasts of the Pacific region

34. Although man has been traveling over the surface of seas and oceans for millennia, _____.

a) he managed to built technologically well-equipped ships
b) recent studies have shown remarkable facts
c) petroleum and minerals can be found under the ocean
d) his knowledge of them is very limited

35. At the beginning of the 20th century, many people thought it was impossible for humans to fly, but _____.

a) the Wright brothers worked hard to invent an airplane throughout their lives
b) in 1880, the Wright brothers published their first project in a newspaper
c) no serious work on aviation was done before the Wright Brothers
d) Orville and Wilbur Wright were two brothers who thought differently

36. Doctors think flying for long hours might lead to certain health problems. For example, _____.

a) there is less oxygen inside a plane than there is on the ground
b) sitting on a plane during long journeys can cause blood clots
c) even healthy people often find it difficult to travel by plane
d) people should take some exercise, especially on long flights

37. The surprising thing about ballooning is that it is a hobby people follow for relaxation rather than for excitement. In other words, _____.

a) people prefer this sport because it helps them to relax
b) ballooning is a popular sport as it is exciting and relaxing
c) the popularity of ballooning is increasing nowadays
d) relaxed people prefer ballooning more than other activities

38. To become a private balloon pilot, you have to have completed sixteen flying hours with an instructor. Furthermore, _____.

a) without a ballooning license you cannot fly a balloon
b) more people want to have a ballooning license nowadays
c) you need to pass a written exam and do one solo flight
d) ballooning is less expensive than you might think

39. Pregnant women shouldn't take a flight which lasts more than four hours after their thirty-fifth week since _____.

a) some doctors think long distance flying is not harmful at all
b) they have to use other types of vehicle when necessary
c) crowded airports cause stress and high blood pressure
d) the changes in pressure might cause them to give birth earlier than expected

40. Managers of big companies are not against the idea of business ethics. On the contrary, _____.

a) they show very little concern for the morality of the people they work with
b) business ethics is an essential part of the curriculum at most business schools
c) the majority of big companies are actively trying to train their managers about ethics
d) the ethical culture of a company is best set by the behavior of these managers

41. Credit cards are still regarded with suspicion by many people as being a major part of the 'live now pay later ' syndrome. However, _____.

a) all credit card organizations charge interest on a monthly basis
b) if used wisely, credit cards make life easier
c) credit cards encourage people to spend more money
d) one should be careful before deciding on a credit card

42. The performance of electric cars is not as good as the performance of cars with conventional internal combustion engines. Consequently, _____.

a) electric cars are reliable, economical and environment-friendly
b) they are known to cost less to operate than the ones that use gasoline
c) they are unlikely to be used widely unless some improvements are made in them
d) engineers have improved the technology used in combustion engines

43. Despite the problems of poverty, overpopulation and political instability, _____.

a) the growth record of developing countries in the past three decades shows some positive achievements
b) economic prosperity in developed countries depends on the growth in developing countries
c) slow growth, unemployment and the increase in the inflation rate in Western nations have affected developing countries
d) it has become apparent that the growth record in developing countries has also had an important social dimension

44. The island of Bali has long had the reputation of being one of the most perfect places on Earth. In fact, _____.

a) this paradise has been threatened over the last two decades by the arrival of tourists
b) it has got a very pleasant climate and a remarkably beautiful and varied landscape
c) the local population has been able to adapt to tourism without destroying their environment
d) the local people have accepted tourism and the money it brings without letting it affect their lives

45. Media ethics demands that companies and organizations that sponsor news programs not determine, restrict or manipulate the news content for their own benefit. In other words, _____.

a) sponsors should make sure that news offers a diversity of expressions and opinions
b) sponsors should not be allowed to influence the news content for their own interest
c) news should not be gathered or reported to inflict harm on sponsors
d) the news content should be chosen with the help of sponsors and special interest groups

46. As the science of genetics evolves and the technology becomes more accessible, _____.

a) understanding how genes control tumor growth is the major goal of cancer research
b) it seems that the mysteries of our genetic code will remain unsolved
c) preventing the misuse of genetic information will become more important
d) people appear to have lost their faith in new branches of science and technology

47. Genetics and molecular biology have provided significant information about inherited disorders. _____.

a) Moreover, the processes that disrupt brain function are not yet clear
b) For example, an extra chromosome associated with Down's syndrome has been discovered
c) As a result, behaviors change in response to alterations in biological processes
d) Similarly, these new branches of science will raise certain ethical questions in society

48. Scientists have used genetic modification to produce animals with conditions similar to human diseases so that _____.

a) they can test new drugs on them and develop effective treatments
b) they can protect themselves against the diseases caused by animals
c) these animals can be treated using more effective drugs
d) they can use the animal organs in transplants

49. Many people are hopeful that successful achievements will be made in genetics. Nevertheless, _____.

a) there are also question marks over whether other sciences will cause ethical problems
b) others are of the opinion that genetics is the science of the 21st century
c) most of them still believe that it will find a way to treat many incurable diseases
d) others are concerned about the ethical issues raised by this branch of science

50. Although a person cannot control which genes he inherits, he can control other factors affecting his health. This view has led to the growth of holistic medicine, one of the modern approaches to health. Holistic medicine stresses the individual's responsibility in achieving and maintaining his or her health by establishing good health habits. In other words, holistic medicine _____.

a) focuses on the importance of self-care which is the key to a healthy life
b) informs the individual about the many factors which affect his health such as genetics
c) maintains that the body will take care of itself for a long healthy life if we only let it do so
d) believes that the individual can maintain a healthy life as long as he or she has healthy genes

51. Until the eighteenth century, most doctors had no clear idea of how the parts of the body worked, and the treatment they gave their patients was usually ineffective. _____.

a) Doctors in the past learnt a lot by operating on the bodies of criminals while they were still alive
b) It actually made the patient's condition worse and sometimes even killed him
c) The Greek doctors thought that it was wrong to cut open the human body, so they really had no idea of what happened inside
d) One of the first diseases which doctors recognized and named was leprosy

52. In the early twentieth century, cancer was always fatal; by the 1940s, one out of seven cancer patients was cured; by 1980, treatments were successful in one out of every five cancer patients._____.

a) Indeed, everyone knows that cancer has hundreds of different types and, therefore, it is difficult to diagnose.
b) New evidence suggests that smokers are in the highest risk group for lung cancer.
c) Today, physicians believe half of all cancer patients can be saved if present knowledge is applied promptly in every case.
d) Some cancer patients need psychological therapy during their treatment in order to lead as normal a life as possible.

53. There are several factors involved in the increase in the number of malaria cases in several places. Firstly, both medical and insecticide programs are only effective if they are used properly, which is difficult for economic reasons. Secondly, some types of mosquito have become resistant to insecticides. Nevertheless, _____.

a) the major factor for the spread of the disease is people traveling from one part of the world to another
b) anti-malaria programs have been unsuccessful in many areas
c) the widespread use of insecticides such as DDT still continues
d) an anti-malaria vaccine has not yet been developed to eradicate the disease

54. However useful garlic is, eating too much garlic has some unpleasant side effects. For example, some people develop allergic reactions, diarrhea or indigestion. Moreover, _____.

a) Egyptian priests did not allow people with garlic on their breath to enter holy temples
b) taken in high doses, it may cause anemia or liver damage
c) research shows that garlic plays an important role in treating some diseases
d) garlic blocks the action of agents that cause breast and skin cancer

55. Genetically engineered foods have received a great deal of attention within the last decade and many people recognize that they offer lots of benefits to our lives. To illustrate, _____.

a) nowadays, many of these food products are now available on the market
b) they could solve the problem of hunger all over the world
c) some people are concerned that these foods may cause people to develop allergies
d) they have caused disputes among restaurant owners as well as others who work with food

56. Although it is widely believed that genetically engineered foods will improve our lives, _____.

a) such products could also improve the taste and the quality of the food we consume
b) they could provide an expansion in the food industry, which will help the general economy
c) we need to weigh the advantages against the disadvantages and consider the possible dangers
d) most people seem to be enthusiastic about consuming them, regadless of the risks

57. The methods of harvesting corn in the United States have changed dramatically in the past century. _____.

a) All these changes mean that corn will feed more people around the world.
b) Corn is also used in the production of all kinds of things, from glue to hand lotion.
c) Farmers used to pick corn by hand, whereas they now use huge machines for this purpose.
d) Genetic engineering has brought about some important changes in the production of corn.

58. During the Middle Ages, Venice built up a considerable empire on the mainland of Italy and down the Adriatic Coast, including parts of Greece. At that time, its trade had expanded greatly. In fact, _____.

a) trading with the East created an interest in Eastern culture among Venetians
b) it controlled the main trade route between the East and the West
c) it came into conflict with the other sea-trading power, Genoa
d) with the discovery of new trading routes, its power and wealth began to decline

59. Sir Isaac Newton worked on many of the important scientific theories of his day. _____.

a) The law of universal gravitation and the law of motion are two of the best known ones.
b) Present-day physicists have discovered limits to the mechanical universe which Newton described.
c) His other books included experiments and writings on astronomy, chemistry and logic.
d) Popular belief says that a falling apple gave Newton the idea for the law of universal gravitation.

60. The best children's books keep a balance between complexity and simplicity, and satisfy both the child who hears the story and the adult who reads it. Unfortunately, there are comparatively few books like this._____.

a) In contrast, children and adults are so different that it is unlikely they will appreciate the same books
b) Yet, many of the books regarded as the classics of children's literature were in fact originally written for adults
c) On the contrary, most parents are aware of the fact that it is difficult to write a good children's book
d) Therefore, the problem of finding a suitable bedtime story is not easy to solve

61. UNESCO's declaration on the Human Genome Project is the most significant step taken so far in terms of the human rights implications of the recent advances in genetics. Yet, it neglects a number of human rights concerns, including how technological developments may lead to discrimination on the basis of gender, ethnic origin and family background. _____.

a) For instance, it considers the possible negative effects of such developments on the society
b) Nevertheless, it fails to offer help for those discriminated against on the basis of race and ethnicity
c) As a result, most nations lack legislation on the social implications of technological developments
d) Moreover, it disregards significant national and international public health considerations

62. The chaotic world of Jurassic Park with dangerous dinosaurs roaming the Earth may be the first picture that comes to one's mind when thinking of cloning. Cloning may have its roots in science fiction, but today it is more than a fantasy. Scientists performing experiments on cloning claim that it offers many practical applications. They point out that provided cloning is never used for unethical purposes, _____.

a) it will continue to be one of the greatest advances in science
b) they will be able to assess the potential risks of this method
c) there will be many groups who are against cloning
d) the discussions on this issue will probably last for a long time

APPENDIX B.
PARAGRAPH COMPLETION

1. Man's continued existence depends on two basic activities; agriculture and mining. In the case of agriculture, the soil can be managed so that year after year it will produce a better harvest. _____. Once a mineral or fossil fuel has been removed from the ground, it has gone forever.

   a) That is the reason why many people are going for farming
   b) With mining, however, the situation is very different
   c) Today, in many countries, industry has replaced agriculture
   d) Many people are not aware of the importance of mining for their existence

2. Recent studies at sleep clinics have revealed significant facts about the causes of insomnia, i.e. inability to sleep. _____. Also, insomnia may be caused by physical illnesses such as asthma, arthritis and heart problems.

   a) Getting exercise during the day helps a person sleep well at night
   b) Most people believe that in order to be healthy they must have eight hours of sleep every night
   c) Doctors claim that taking sleeping pills is not an effective way to deal with insomnia
   d) It is no surprise that stress and depression are linked to insomnia

3. Astronomy is the science that deals with the celestial bodies — the Sun, the Moon, the planets and other members of the solar system, the stars and the galaxies. _____. The first true astronomers, however, were the Greeks such as Thales, Pythagoras and Hipparchus.

   a) The Greeks knew that the Earth is spherical, and not flat as earlier people had believed it to be
   b) Records from Egypt and China show that astronomy was popular in these countries thousands of years ago
   c) It is concerned with the positions and motions of these bodies and the explanation of their distances and sizes
   d) The work of the Greek philosophers was summarized by Ptolemy in a great book which has survived in its Arabic translation

4. Cataracts is the leading cause of blindness worldwide, and Himalayan nations may suffer most. In Nepal, the condition causes more than 80% of curable blindness. The reason why this region is so affected is unknown, but researchers suspect genetics, diet and the intense ultraviolet radiation at high altitudes. _____. Nepal has one ophthalmologist for every 300,000 people. Dr. Ruit, a well-known eye surgeon is working hard to eliminate this obstacle and change the situation for the better.

   a) 85,000 Nepalese are treated each year at Eye Centres in Kathmandu and remote field clinics, which is in fact a great improvement compared to the past
   b) Until recently, eye operations in Nepal were carried out using very old methods, leaving people dependent on thick glasses
   c) The insufficient number of eye-specialists is another factor which makes the loss of sight due to cataracts so common among the Nepalese
   d) It's a well-known fact that people who live in high altitudes, like the Himalayan nations, are exposed to intense ultraviolet rays, which may cause blindness

5. _____. People who advocate fasting claim that it is a way of not only losing weight but also getting rid of the toxins in the body. Fasting burns off old and diseased tissue, and in general, helps a person feel better. It is, they say, a form of 'spring cleaning' the body, a 'burning of body rubbish.'

a) In recent years, especially in the Western world, there has been a movement toward fasting, that is, not eating for a given period of time
b) Although the body can tolerate fasting for about 30 days, beginners are advised to fast for no more than 3 to 5 days, during which it is essential to drink water
c) Fasting means not eating anything for a certain period of time, usually for religious reasons rather than for losing weight or getting rid of the chemicals in the body
d) Fasting is different from starving in that in fasting, the body uses its own tissue reserves in order of importance—with fat being used before muscle

6. The main nutritional substance of the brain is glucose. _____. If a diabetic patient receives an overdose of insulin, there is a fall in the glucose level in the brain. This may cause serious problems.

a) The glucose level in blood can only be measured by doctors
b) The glucose is absorbed by the brain within minutes
c) A certain amount of glucose is vital for the brain to work properly
d) Changes in the level of glucose in the blood affects the brain severely

7. The Minister of Education mentioned two important points at the meeting. Firstly, 130 more mathematics teachers will be employed for next year. _____. Secondly, the ministry will increase the number of scholarships that are given to social science students to study abroad.

a) These teachers will be expected to work in high schools in big cities
b) About half of the graduates of Mathematics Departments want to be teachers
c) Mathematics teachers have always been disappointed with their salaries
d) Mathematics teachers are expected to give elective courses in most high schools

8. People from abroad visit Cappadocia for different reasons. Mainly, they come for the exotic scenery and the archaeological interest. _____. Moreover, in the vicinity, that is in the surroundings, there are many places of remarkable beauty and historical significance.

a) The rock monasteries in particular attract large crowds
b) Few people have realized that Cappadocia is a developing tourist centre
c) However, it hasn't been sufficiently advertised
d) It is only recently that the number of tourists in Cappadocia has decreased

9. Bridges are among the most significant, and often the most spectacular of all civil engineering works. _____. Without them, it would be impossible to imagine how traffic in Istanbul could circulate. Furthermore, they are the symbolic links between two continents.

a) The bridges across the Bosphorus are good examples of them
b) Another aspect of civil engineering is the choice of a suitable site
c) The most important problem of long bridges is their maintenance
d) It used to be a dream to construct a bridge across the Bosphorus

10. _____. The first is called a reservoir. The water stored in it can be used for irrigation or power generation. It can also be used to supply water to industry. Therefore, it is essential for production.

a) A dam is a long, high wall, which is constructed across a valley to store water
b) A dam is a complex structure which consists of various parts
c) The zone for any dam is chosen with great care by engineers
d) The area where dams are built provide that region with great benefits

11. Stonehenge, which is situated on Salisbury Plain, is the most important ancient ruin in the British Isles. The monument is made up of two large circles of huge stones, in the centre of which are tall columns and a 15-foot blue stone block. The origins of the monument are unknown. _____. However, no scientific data have been uncovered to support this theory.

    a) It is known that the stone were brought to Salisbury from Wales
    b) There are a lot of myths about the possible origins of the structure
    c) Legend tells us that it was used for sun-worship by the Druids
    d) Stonehenge was presented to the nation by Sir Cecil Chubb in 1918

12. One of the advances in modern medicine is the technique known as transplant surgery. It is the replacement of a diseased or damaged part of the body by a healthy one from another person. _____. This is because our bodies' natural defense against any invader, as with a transplanted organ, is to attempt to destroy it.

    a) Only a few years ago, no one would have imagined such a thing would be possible.
    b) The main disadvantage of this new technique, however, comes from the body itself.
    c) There are even transplants from certain animals to humans.
    d) However, an organ transplant cannot be performed without the prior permission of a donor.

13. Lakes can be defined as hollows in the Earth's surface in which water collects. _____. Some of the largest are formed by earth movements such as earthquakes and volcanic eruptions. For example, many of the deep lakes in the Azores and Iceland are the water-filled craters of extinct volcanoes.

    a) The chemical and biological condition of a lake depends on many factors
    b) Other lakes are formed by the actions of rivers, wind and sea
    c) They come into being due to a variety of natural occurrences
    d) They are beneficial to man in many different ways

14. _____. Every day we throw away tin cans, bottles, old clothes, paper — in short, rubbish. As the world runs out of raw material, we should be more careful about the disposal of waste. For example, we can reduce the amount of packaging used and recycle whenever possible.

    a) Rubbish is recycled in many different ways
    b) Modern societies have found ways to recycle rubbish
    c) Rubbish dumps have become a threat for the developed countries
    d) Today, most countries are unaware of the importance of recycling

15. When one is traveling by plane, the changes of in pressure during an ascent may seriously damage the ears by causing the eardrum to burst or by making the inner ear prone to a painful infection. _____. The air pressure outside the ear drops and the air pressure inside it causes the drum swell outwards. If the difference in pressure becomes great, the drum will burst.

    a) As one ascends, the change in the atmospheric pressure in the ears begins to be felt
    b) Swallowing hard several times can relieve the pressure difference
    c) One should know how to balance the air pressure in order to fly safely
    d) Ear infections can have detrimental effects

16. Even though mothers are frequently forced to work for economic reasons, they soon discover that there are added expenses. _____. Another is transportation, which may include purchasing and maintaining a car.

a) The major problems a working mother faces concern her children
b) After taking all the problems into account, she must decide if a job is worth it
c) One of her biggest expenses is a day care centre for her children
d) Still another problem is that she may not be able to take the children to after-school activities

17. Medical ethics has, without doubt, gained much wider recognition, especially in the past few decades. Almost all hospitals now have ethics committees. _____ . What is more, medical professionals share these complicated and critical discussions with lawyers, social scientists, theologians and philosophers.

a) The moral implications of biomedical advances are discussed thoroughly in the meetings held by these committees .
b) These committees avoid debating over the future implications of biomedicine
c) Bioethics has a deep impact on our social and private lives
d) The advances in technology have led to several ethical controversies

18. If it were possible to clone non-human primates, some of our closest relatives, _____. Two teams, led by Professor Gerald Schatten of the Oregon Regional Primate Research Center, have created cloned rhesus monkey embryos, the first stage in successful cloning. However, no subsequent pregnancy has been achieved yet.

a) human cloning would still be regarded as a dream of tomorrow
b) scientists would never assess the potential risks of cloning
c) then human cloning would seem like an achievable goal
d) cloning could be an ideal way of mass-producing farm animals

19. It is now recognized that diseases are influenced by genetic factors only to a certain extent. Not every illness that you get is predetermined by inheritance as _____. In other words, what actually determines whether we become ill depends on environmental factors as well as genetic traits.

a) genetics has revolutionized our understanding of diseases and their treatment
b) you are less likely to become ill if you have a healthy life style
c) there are various environmental factors contributing to the onset of a disease
d) we are likely to develop a particular illness under certain circumstances

APPENDIX C.
TEXT COMPLETION

Read the text below and fill in the blanks using the sentences A-G provided below. There are more sentences than you need.

Balloons Away!

(e.g) **F**. I was told to be ready at 6.30 the next morning at the Black Horse pub wearing Wellington boots and warm clothes. After weeks of uncertainty, a life-long ambition was about to be realized at last. (1)_____. I was full of excitement and looking forward to it. At 7.15 a.m. we took off. It was absolutely different from flying in a plane or helicopter. (2)_____. The only way I knew the balloon was moving upwards was that the ground was going away from us! The people and cars were rapidly beginning to look like toys. (3)_____. Apart from the noise of gas and flames, it was so quiet that I could hear dogs barking below. I could easily call out to people in one of the other balloons, which happened to be quite near us.

As I had imagined, it was quite cold up there, but, fortunately, the burner near my head kept my body warm. (4)_____, and then I recalled what the pilot had explained: we are the wind; we travel with it. There is no air resistance because we are not powered. Hence, there is no feeling of movement or progress.

During the flight, once or twice I felt quite nervous, thinking that there was only a basket and eight hundred meters of nothing below us! (5)_____. All in all, this was a unique experience – a peaceful and beautiful journey, totally in tune with the environment.

A) I was surprised how incredibly peaceful it was up there

B) However, I soon put these panicky feelings away and concentrated on enjoying myself

C) I was going to fly in a hot air balloon

D) It was rising gently up into the morning air

E) Thankfully, it was not windy at all

F) It was ten o'clock in the morning when I received the phone call

G) There was no feeling of movement at all

APPENDIX D.
ACADEMIC WORD LIST

Headwords	Other words in the family.
abandon	abandoned, abandoning
abolish	abolishes, abolished, abolishing, abolition
abstract	abstraction, abstractions, abstractly, abstracts
abuse	abuser, abusive, abusing, abused, abuses
accelerate	acceleration, accelerating, accelerated, accelerates
access	accessed, accesses, accessibility, accessible, accessing, inaccessible
accommodate	accommodated, accommodates, accommodating, accommodation
accompany	accompanied, accompanies, accompaniment, accompanying, unaccompanied
accomplish	accomplishment, accomplishing, accomplished, accomplishes
account for	accounts for, accounted for, accounting for
accumulate	accumulated, accumulating, accumulation, accumulates
accurate	accuracy, accurately, inaccuracy, inaccuracies, inaccurate
achieve	achievable, achieved, achievement, achievements, achieves, achieving
acknowledge	acknowledged, acknowledges, acknowledging, acknowledgement
acquire	acquired, acquires, acquiring, acquisition, acquisitions
adapt	adaptability, adaptable, adaptation, adaptations, adapted, adapting, adaptive, adapts
addict	addicts, addicted, addiction, addictive
adequate	adequacy, adequately, inadequacies, inadequacy, inadequate, inadequately
adjust	adjusted, adjusting, adjustment, adjustments, adjusts, readjust, readjusted, readjusting, readjustment, readjustments, readjusts
administrate	administrates, administration, administrations, administrative, administratively, administrator, administrators
admire	admiration, admirable, admirably, admirer, admiring, admiringly, admired, admires
adopt	adopts, adopted, adopting, adoption, adoptive
advance	advancing, advanced, advancement, advances
advantage	advantageous, advantageously, disadvantages, disadvantage, advantages, disadvantaged, disadvantageous
advent	
adverse	adversely

advertise	advertisement, advertisements, advertiser, advertising, advertised
advice	advise, advised, advisable, advisability, advisor, advisory, advises
advocate	advocacy, advocated, advocates, advocating
affect	affected, affecting, affective, affectively, affects, unaffected
aid	aided, aiding, aids, unaided
allege	alleged, allegedly, allegation
alienate	alienation, alienated, alienates, alienating
allocate	allocated, allocates, allocating, allocation, allocations
allow	allowed, allowance, allowable, allows
alter	alterable, alteration, alterations, altered, altering, alternate, alternating, alters, unalterable, unaltered
alternative	alternatively, alternatives
ambiguous	ambiguities, ambiguity, unambiguous, unambiguously
amend	amended, amending, amendment, amendments, amends
analogy	analogies, analogous
annual	annually
anticipate	anticipated, anticipates, anticipating, anticipation, unanticipated
apparent	apparently
appreciate	appreciable, appreciably, appreciated, appreciates, appreciating, appreciation, unappreciated
apprehend	apprehended, apprehends, apprehending, apprehension
approach	approachable, approached, approaches, approaching, unapproachable
appropriate	appropriately, inappropriate, inappropriately
approximate	approximated, approximately, approximates, approximating, approximation, approximations
arbitrary	arbitrariness, arbitrarily
architecture	architect, architectural, architecturally
aspect	aspects
assault	assaulted, assaulting, assaults
assemble	assembled, assembles, assemblies, assembling, assembly
assert	asserted, assertive, assertively, assertiveness, asserts

assess	assessable, assessed, assesses, assessing, assessment, assessments, reassess, reassessed, reassessing, reassessment, unassessed
assign	assigned, assigning, assignment, assignments, assigns, reassign, reassigned, reassigning, reassigns, unassigned
assist	assistance, assistant, assistants, assisted, assisting, assists, unassisted
associate	associated, associating, associates
assume	assumed, assumes, assuming, assumption, assumptions
assure	assurance, assurances, assured, assuredly, assures, assuring
attach	attached, attaches, attaching, attachment, attachments, unattached
attain	attainable, attained, attaining, attainment, attainments, attains, unattainable
attend	attended, attending, attendance, attends
attitude	attitudes
attribute	attributable, attributed, attributes, attributing, attribution
available	availability, unavailable
avoid	avoidance, avoidable, unavoidable, unavoidably, avoided, avoids, avoiding
aware	awareness, unaware
behalf	
believe	believed, belief, believable, unbelievable, unbelievably, believer, believes, believing
benefit	beneficial, benefited, benefiting, benefits
bias	biased, biases, biasing, unbiased
border	bordering, cross-border, borders
bribe	bribery, bribed, bribes
brief	briefed, briefing, briefly
calculate	calculation, calculator, calculates, calculations, calculating
capable	capabilities, capability, incapable
capacity	capacities
capture	captures, captured, capturing
category	categories, categorization, categorize, categorized, categorizes, categorizing
cause	causal, causality, causes
cautious	cautiously, caution, cautions, cautiousness
cease	ceased, ceaseless, ceases, ceasing

challenge	challenged, challenger, challengers, challenges, challenging
channel	channeled, channeling, channels
chase	chases, chased, chasing
circumstance	circumstances
cite	citation, citations, cited, citing, cites
civilize	civilization, civilized, uncivilized
claim	claims, claimed, claiming
clarify	clarification, clarified, clarifies, clarifying, clarity
classify	classification, classifiable, classifies, classifications, classifying
code	coded, codes, coding
coherent	coherence, coherently, incoherent, incoherently
coincide	coincided, coincides, coinciding, coincidence, coincidences, coincident, coincidental
collapse	collapsed, collapses, collapsible, collapsing
colleague	colleagues
collide	collision, collides, collided, colliding
comment	commentaries, commentary, commentator, commentators, commented, commenting, comments
commercial	commerce, commercialize, commercialized, commercialization, commercialism, commercials, commercially
commission	commissioned, commissioner, commissioners, commissioning, commissions
commit	commitment, commitments, commits, committed, committing
commodity	commodities
communicate	communicable, communicated, communicates, communicating, communication, communications, communicative, communicatively, uncommunicative
community	communities
compatible	compatibility, incompatibility, incompatible
compensate	compensated, compensates, compensating, compensation, compensations, compensatory
compete	competition, competitor, competitive, competitively, competitiveness, competes, competing, competed
compile	compilation, compilations, compiled, compiles, compiling

complement	complementary, complemented, complementing, complements
component	components
comprehensive	comprehensively
comprise	comprised, comprises, comprising
compulsory	compulsion, compulsorily
compute	computation, computations, computable, computer, computed, computerized, computers, computing
conceive	conceivable, conceivably, conceived, conceives, conceiving, inconceivable, inconceivably
concentrate	concentrated, concentrates, concentrating, concentration
concept	conception, concepts, conceptual, conceptualization, conceptualize, conceptualized, conceptualizes, conceptualizing, conceptually
concern	concerned, concernedly, concerning, concerns
conclude	concluded, concludes, concluding, conclusion, conclusions, conclusive, conclusively, inconclusive, inconclusively
condemn	condemnation, condemned, condemns, condemning
condense	condensed, condensation, condenses, condensing
conduct	conducted, conducting, conducts
confer	conference, conferences, conferred, conferring, confers
confidence	confident, confidently
confine	confined, confines, confining, unconfined
confirm	confirmation, confirmed, confirming, confirms
conflict	conflicted, conflicting, conflicts
conform	conformable, conformability, conformance, conformation, conformed, conforming, conformist, conformists, conformity, conforms, nonconformist, nonconformists, nonconformity, non-conformist, non-conformists, non-conformity
confront	confrontation, confrontational, confronts, confronted, confronting
conscious	consciousness, consciously, unconscious, unconsciously, unconsciousness
consensus	
consent	consensus, consented, consenting, consents
consequent	consequence, consequences, consequently
conserve	conserves, conserved, conserving, conservation,

considerable	considerably
consist	consisted, consistency, consistent, consistently, consisting, consists, inconsistencies, inconsistency, inconsistent
constant	constancy, constantly, constants, inconstancy, inconstantly
constitute	constituencies, constituency, constituent, constituents, constituted, constitutes, constituting, constitution, constitutions, constitutional, constitutionally, constitutive, unconstitutional
constrain	constrained, constraining, constrains, constraint, constraints, unconstrained
construct	constructed, constructing, construction, constructions, constructive, constructs, reconstruct, reconstructed, reconstructing, reconstruction, reconstructs
consult	consultancy, consultant, consultants, consultation, consultations, consultative, consulted, consults, consulting
consume	consumed, consumer, consumers, consumes, consuming, consumption
constitute	constitution, constitutes, constituted, constituents, constituting
contact	contactable, contacted, contacting, contacts
contagious	contagion
contain	container, contains, contained, containing
contemporary	contemporaries
context	contexts, contextual, contextualize, contextualized, contextualizing
contract	contracted, contracting, contractor, contractors, contracts
contradict	contradicted, contradicting, contradiction, contradictions, contradictory, contradicts
contrary to	contrarily
contribute	contributed, contributes, contributing, contribution, contributions, contributor, contributors
controversy	controversies, controversial, controversially, uncontroversial
convene	convention, convenes, convened, convening, conventional, conventionally, conventions, unconventional
convenient	inconvenient, convenience, inconvenience, conveniently, inconveniently
converse	conversely
convert	conversion, conversions, converted, convertible, converting, converts
convict	convicted, conviction, convicts

convince	convinced, convinces, convincing, convincingly, unconvinced
cooperate	cooperated, cooperates, cooperating, cooperation, cooperative, cooperatively, co-operate, co-operated, co-operates, co-operation, co-operative, co-operatively
cope with	
corporate	corporates, corporation, corporations
correspond	corresponded, correspondence, corresponding, correspondingly, corresponds
courage	courageous, courageously, encourage, encourages, encouraged, encouraging, encouragingly, encouragement, discourage, discourages, discouraged, discouraging, discouragement
create	created, creates, creating, creation, creations, creative, creatively, creativity, creator, creators, recreate, recreated, recreates, recreating
crime	criminal, criminalize, criminally, crimes
criteria	criterion
crucial	crucially
curb	curbing, curbs, curbed
cure	curable, curability, incurable, cures, curing, cured
currency	currencies
custom	customary, customarily, customs
cycle	cycled, cycles, cyclic, cyclical, cycling
damage	damaged, damaging
debate	debatable, debated, debates, debating
decade	decades
decide	decision, decisive, decisively, indecisive, indecisively, indecision, decides, decided, decisions, deciding
deceive	deception, deceptive, deceptively, deceiver, deceives, deceived, deceiving
decline	declined, declines, declining
deduce	deduced, deduces, deducing, deduction, deductions
deep	depth, deepen, deeply, deepens, deepened, deepening
deficiency	deficient, deficiently
deficit	deficits
definite	definitely, definitive, indefinite, indefinitely
deliberate	deliberately, deliberation

demand	demanding, demands, demanded
demonstrate	demonstrated, demonstrates, demonstrating, demonstration, demonstrations, demonstrative, demonstratively, demonstrator, demonstrators
denote	denotation, denotations, denoted, denotes, denoting
deny	deniable, denial, denials, denied, denies, denying, undeniable
depend	independent, dependent, independently, independence, dependence, depending, depended, depends
deplete	deplete, depleted, depletion, depleting, depletes
depress	depressed, depresses, depressing, depression
deprive	deprived, deprivation, deprives, depriving
derive	derivation, derivations, derivative, derivatives, derived, derives, deriving
design	designed, designer, designers, designing, designs
desperate	desperately, desperation
destroy	destruction, destructive, destructively, destructiveness, destroys, destroyed, destroying
detect	detectable, detected, detecting, detection, detective, detectives, detector, detectors, detects
deter	deterrent, deters, deterred, deterring
deteriorate	deterioration, deteriorates, deteriorated
determined	determine, determination, determinedly
detriment	detrimental
devastate	devastated, devastating, devastatingly, devastation
develop	developed, developing, developer, development, developmental, develops
deviate	deviated, deviates, deviating, deviation, deviations
device	devices
devise	devises, devised, devising
devote	devoted, devotedly, devotes, devoting, devotion, devotions
differentiate	differentiated, differentiates, differentiating, differentiation
diffuse	diffusely, diffuses, diffused
dimension	dimensional, dimensions, multidimensional
diminish	diminished, diminishes, diminishing, undiminished

disaster	disastrous, disastrously
discard	discards, discarded, discarding
discharge	discharges, discharged, discharging
discrete	discretely, discretion, indiscrete, indiscretion
discriminate	discriminated, discriminates, discriminating, discrimination
displace	displaced, displacement, displaces, displacing
display	displayed, displaying, displays
dispose	disposable, disposal, disposed, disposes, disposing
dispute	disputed, disputable, indisputable, disputes
disrupt	disruption, disruptive, disruptively, disrupts, disrupting, disrupted
dissuade	dissuades, dissuaded
distinct	distinction, distinctions, distinctive, distinctively, distinctly, indistinct, indistinctly
distort	distorted, distorting, distortion, distortions, distorts
distract	distracting, distraction, distracts, distracted
distribute	distributed, distributing, distribution, distributional, distributions, distributive, distributor, distributors, redistribute, redistributed, redistributes, redistributing, redistribution
diverse	diversely, diversification, diversified, diversifies, diversify, diversifying, diversity
divide	division, divisible, divisor, divides, divided, dividing
domain	domains
domestic	domestically, domesticate, domesticated, domesticating, domestics
dominate	dominance, dominant, dominated, dominates, dominating, domination
donate	donor, donation, donates, donors, donated, donations, donating
doubt	doubtful, doubtfully, doubtless, doubts, doubted
draft	drafted, drafting, drafts, redraft, redrafted, redrafting, redrafts
dump	dumping, dumps, dumped
durable	durability
duration	
dynamic	dynamically, dynamics
ease	easiness, eases, eased, easing

economy	economic, economical, economically, economics, economies, economist, economists, uneconomical, economize
edit	edited, editing, edition, editions, editor, editorial, editorials, editors, edits
educate	education, educational, educationally, educated, uneducated, educative, educator, educationist, educates, educating
effect	effective, effectively, effectiveness, effects
efficient	efficiently, efficiency, inefficient, inefficiently, inefficiency
elaborate	elaboration, elaborately, elaborates, elaborated, elaborating
eliminate	eliminated, eliminates, eliminating, elimination
emerge	emerged, emergence, emergent, emerges, emerging
emigrate	emigration, emigrant, emigrated, emigrates, emigrants, emigrating
emphasis	emphasize, emphasized, emphasizing
empirical	empirically
enable	enabled, enables, enabling
encounter	encountered, encountering, encounters
endanger	endangered, endangers
endure	endurable, endurance, enduring, endures, endured
enforce	enforced, enforcement, enforces, enforcing
enhance	enhanced, enhancement, enhances, enhancing
enormous	enormity, enormously
enroll	enrolls, enrolled, enrolling, enrollment
ensure	ensured, ensures, ensuring
entire	entirely
entitle	entitled, entitlement, entitles, entitling
entity	entities
environment	environmental, environmentalist, environmentalists, environmentally, environments
envision	envisions, envisioned, envisioning
equip	equipment, equipped, equipping, equips
equivalent	equivalence
eradicate	eradicates, eradicated, eradication, eradicating

erode	eroded, erodes, eroding, erosion
error	erroneous, erroneously, errors
essential	essentially
establish	disestablish, disestablished, disestablishes, disestablishing, disestablishment, established, establishes, establishing, establishment, establishments
estimate	estimated, estimates, estimating, estimation, estimations, over-estimate, overestimate, overestimated, overestimates, overestimating, underestimate, underestimated, underestimates, underestimating
ethic	ethical, ethically, ethics, unethical
ethnic	ethnicity
evaluate	evaluated, evaluates, evaluating, evaluation, evaluations, evaluative, re-evaluate, re-evaluated, re-evaluates, re-evaluating, re-evaluation
evaporate	evaporation, evaporates, evaporated, evaporating
eventual	eventuality, eventually
evident	evidenced, evidence, evidential, evidently
evolve	evolution, evolved, evolving, evolves, evolutionary, evolutionist, evolutionists
exaggerate	exaggerates, exaggerated, exaggerating, exaggeration, exaggeratedly
exceed	exceeded, exceeding, exceeds
excessive	excessively, excess
exchange	exchangeable, exchanges, exchanged, exchanging
exclude	excluded, excludes, excluding, exclusion, exclusionary, exclusionist, exclusions, exclusive, exclusively
exhaust	exhaustible, exhaustive, exhaustively, exhausted, exhausting, exhausts
exhibit	exhibited, exhibiting, exhibition, exhibitions, exhibits
exist	existence, existent, existing, exists, existed
expand	expanded, expanding, expands, expansion, expansive
expect	expected, expectancy, expectation, unexpected, unexpectedly, expects, expectations, expecting
expel	expels, expelled, expelling
expend	expendable, expenditure, expends, expended, expending
expense	expenses
expert	expertise, expertly, experts

experience	experienced, inexperienced, inexperience, experiences, experiencing
explicit	explicitly
exploit	exploitation, exploited, exploiting, exploits
explore	exploration, explorer, exploratory, explores, explored, exploring
export	exported, exporter, exporters, exporting, exports
expose	exposed, exposes, exposing, exposure, exposures
extend	extendable, extended, extension, extends, extending
external	externalization, externalize, externalized, externalizes, externalizing
extinct	extinction
extract	extracted, extracting, extraction, extracts
extreme	extremely
facilitate	facilitated, facilitates, facilities, facilitating, facilitation, facilitator, facilitators, facility
familiar	familiarize, familiarity, familiarly, unfamiliar, familiarizes, familiarized
fault	faulty, faultless, faultlessly, faults
feature	featured, features, featuring
fee	fees
file	filed, files, filing
finance	financed, finances, financial, financially, financier, financiers, financing
fined	fine, fines
finite	infinite, infinitely
flexible	flexibility, inflexible, inflexibility
flourish	flourishing, flourishes, flourished
fluctuate	fluctuated, fluctuates, fluctuating, fluctuation, fluctuations
forecast	forecaster, forecasts, forecasted
foresee	foreseeable, unforeseen, foresees, foresaw, foreseeing, foreseen
former	formerly
formidable	formidably
formula	formulae, formulas, formulate, formulated, formulating, formulation, formulations, reformulate, reformulated, reformulating, reformulation, reformulations
found	founded, founder, founders, founding, unfounded

foundation	foundations
framework	frameworks
free	frees, freed, freeing, freedom
frustrate	frustrated, frustrating, frustration, frustrates
fund	funded, funder, funders, funding, funds
fundamental	fundamentally
gather	gathering, gathers, gathered
gender	genders
generate	generated, generates, generating
generation	generations
globe	global, globally, globalization, globalization
goal	goals
grade	graded, grades, grading
grant	granted, granting, grants
guideline	guidelines
guilty	guilt, guiltily, guiltiness, guiltless
handicap	handicapped
hazard	hazardous, hazards
heredity	heredity, hereditary
hierarchy	hierarchical, hierarchies
highlight	highlighted, highlighting, highlights
hostile	hostility, hostilities
identical	identically
identify	identifiable, identification, identified, identifies, identifying, identities, identity, unidentifiable
ideology	ideological, ideologically, ideologies
ignorant	ignorance, ignore, ignored, ignoring
illustrate	illustrated, illustrates, illustrating, illustration, illustrations, illustrative
image	imagery, images
immense	immensely, immensity

immigrate	immigrant, immigrants, immigrated, immigrates, immigrating, immigration
impact	impacted, impacting, impacts
implement	implementation, implemented, implementing, implements
implicate	implicated, implicates, implicating, implication, implications
implicit	implicitly
imply	implied, implies, implying
import	importer, importation, imports, imported, importing
impose	imposed, imposes, imposing, imposition
impress	impressed, impressive, impressing, impressively, impresses, impression
imprison	imprisonment, imprisoned, imprisoning
improve	improvement, improves, improved, improving
incentive	incentives
incidence	incident, incidentally, incidents
incline	inclination, inclinations, inclined, inclines, inclining
include	inclusive, included, including, inclusion, includes
income	incomes
incorporate	incorporated, incorporates, incorporating, incorporation
incredible	incredibly, credible, credibly, credibility
indicate	indicated, indicates, indicating, indication, indications, indicative, indicator, indicators
indifferent	indifferently, indifference
individual	individualized, individuality, individualism, individualist, individualists, individualistic, individually, individuals
induce	induced, induces, inducing, induction
industry	industrial, industrious, industrially, industrialism, industrialist, industrialize, industrialized, industrializing, industrialization, industries
inevitable	inevitability, inevitably
infer	inference, inferences, inferred, inferring, infers
inflate	inflated, inflates, inflating
inflict	infliction, inflicted, inflicting
influence	influential, influences, influenced, influencing

infrastructure	infrastructures
ingenious	ingeniously, ingenuity
inhabitant	inhabit, inhabitable, uninhabitable, inhabits, inhabited, inhabiting
inherent	inherently
inhibit	inhibited, inhibiting, inhibition, inhibitions, inhibits
initial	initially
initiate	initiated, initiates, initiating, initiation, initiations, initiative, initiatives, initiator, initiators
injure	injured, injures, injuries, injuring, injury, uninjured
inmate	inmates
innate	innately
innocent	innocence, innocently
innovate	innovation, innovated, innovates, innovating, innovations, innovative, innovator, innovators
input	inputs
insert	inserted, inserting, insertion, inserts
insight	insightful, insights
inspect	inspected, inspecting, inspection, inspections, inspector, inspectors, inspects
inspire	inspiration, inspirational, inspired, inspiring, inspires
instance	instances
insulate	insulation, insulator, insulates, insulated, insulating
integral	
integrate	integrated, integrates, integrating, integration
intelligent	intelligence, intelligently, unintelligent
intense	intensely, intenseness, intensification, intensified, intensifies, intensify, intensifying, intension, intensity, intensive, intensively
interact	interacted, interacting, interaction, interactions, interactive, interactively, interacts
interfere	interference, interfering
internal	internalize, internalized, internalizes, internalizing, internally

interpret	interpretation, interpretations, interpretative, interpreted, interpreting, interpretive, interprets, misinterpret, misinterpretation, misinterpretations, misinterpreted, misinterpreting, misinterprets, reinterpret, reinterpreted, reinterprets, reinterpreting, reinterpretation, reinterpretations
interrupt	interruption, interrupts, interrupted, interrupting
interval	intervals
intervene	intervened, intervenes, intervening, intervention, interventions
interview	interviewer, interviewee, interviewed, interviews
intrude	intruder, intrusion, intrusive, intrudes, intruded, intruding
intuition	intuit, intuitive, intuitively
invade	invader, invasion, invasive, invades, invaded, invading
invent	invention, inventor, inventive, inventively, inventiveness, invents, invented, inventing
invest	invested, investing, investment, investments, investor, investors, invests, reinvest, reinvested, reinvesting, reinvestment, reinvests
investigate	investigated, investigates, investigating, investigation, investigations, investigative, investigator, investigators
invoke	invoked, invokes, invoking
involve	involved, involvement, involves, involving, uninvolved
isolate	isolated, isolates, isolating, isolation, isolationism
issue	issued, issues, issuing
journal	journals
judge	judgment, judgmental, judgmentally, judges, judged, judging
justify	justifiable, justifiably, justification, justifications, justified, justifies, justifying, unjustified
label	labeled, labeling, labels
labor	labored, laboring, labors
launch	launcher
layer	layered, layering, layers
legal	illegal, illegality, illegally, legality, legally
legislate	legislated, legislates, legislating, legislation, legislative, legislator, legislators, legislature
legitimate	legitimately, legitimacy, legitimize, legitimized, legitimizes

liberal	liberalize, liberalism, liberalization, liberalized, liberalizes, liberalizing, liberalization, liberate, liberated, liberates, liberation, liberations, liberating, liberator, liberators, liberally, liberals
license	licenses, license, licensed, licensing, licenses, unlicensed
literate	illiterate, literacy, illiteracy,
loan	loans
local	localize, localized, localizes, localizing
locate	located, locating, location, locations, relocate, relocated, relocates, relocating, relocation
logic	illogical, illogically, logical, logically, logician, logicians
maintain	maintained, maintaining, maintains, maintenance
major	majorities, majority
manipulate	manipulated, manipulates, manipulating, manipulation, manipulations, manipulative
manual	manually, manuals
manufacture	manufacturer, manufactured, manufactures, manufacturing
margin	marginal, marginally, margins
mass	massive, massively, massiveness
mature	immature, immaturity, maturation, maturational, matured, matures, maturing, maturity
mediate	mediated, mediates, mediating, mediation
medium	
menace	menacing, menacingly
mental	mentality, mentally
migrate	migrant, migrants, migrated, migrates, migrating, migration, migrations, migratory
military	
minimize	minimized, minimizes, minimizing
ministry	ministered, ministering, ministerial, ministries
minor	minorities, minority, minors
mislead	misleading, misleadingly, misleads, misled
moderate	moderation, moderates, moderated, moderating, moderator, moderately
modernize	modern, modernist, modernistic, modernity, modernization, modernizes, modernized, modernizing

modify	modification, modifications, modified, modifies, modifying, unmodified
monitor	monitored, monitoring, monitors, unmonitored
moral	immoral, morality, immorality, morally, immorally, moralize, moralistic, moralist
motive	motivate, motivated, motivates, motivating, motivation, motivations, motives, unmotivated
mutual	mutually
native	natives
necessary	necessarily, necessity, unnecessary, unnecessarily, necessitates, necessitate, necessitating necessitated
neglect	negligible, neglectful, neglected, neglects, neglecting
negotiate	negotiable, negotiation, negotiates, negotiated, negotiating, negotiator
network	networked, networking, networks
neutral	neutralization, neutralize, neutralized, neutralizes, neutralizing, neutrality
norm	norms
normal	abnormal, abnormally, normalization, normalize, normalized, normalizes, normalizing, normality, normally
notion	notions
nourish	nourishing, nourishment, nourishes, nourished
objective	objectively, objectivity
observe	observation, observer, observatory, observee, observed, observes, observing
obtain	obtainable, obtained, obtaining, obtains, unobtainable
obvious	obviously
occupy	occupancy, occupant, occupants, occupation, occupational, occupations, occupied, occupier, occupiers, occupies, occupying
occur	occurred, occurrence, occurrences, occurring, occurs, reoccur, reoccurred, reoccurring, reoccurs
offend	offense, offensive, offensively, inoffensive, offensiveness, offender, offends, offended
offset	offsets, offsetting
ongoing	
opportunity	opportunist, opportunistically, opportunists

option	optional, options
orbit	orbital, orbits, orbiting
ordinary	ordinarily, ordinariness, extraordinary, extraordinarily
organize	organization, organized, organizer, disorganized, disorganization, organizes, organizing, organizations, organizers
orient	orientate, orientated, orientates, orientation, orientating, oriented, orienting, orients, reorient, reorientation
origin	original, originally, originate, originator, origins, originates, originated, originating
outcome	outcomes
outnumber	outnumbers, outnumbered, outnumbering
output	outputs
overall	
overcome	overcame, overcoming, overcomes
overlap	overlapped, overlapping, overlaps
paradigm	paradigms
parameter	parameters
participate	participant, participants, participated, participates, participating, participation, participatory
penalty	penal, penalize, penalties, penalizes, penalized, penalizing
perceive	perceived, perceives, perceiving, perception, perceptions
perform	performance, performer, performs, performed, performing
period	periodic, periodical, periodically, periodicals, periods
permit	permit, permits, permitting, permitted, permission, permissive, permissiveness, permissible
persist	persisted, persistence, persistent, persistently, persisting, persists
perspective	perspectives
phase	phased, phases, phasing
phenomenon	phenomena, phenomenal
plentiful	plenty, plentifully
policy	policies
pollute	pollution, pollutant, polluter, pollutes, polluting, polluted
population	populate, populous, populated, populates

portion	Portions
pose	posed, poses, posing
potential	Potentially
practitioner	Practitioners
praise	praiseworthy, praising, praises, praised
precede	preceded, precedence, precedent, precedes, preceding, unprecedented
precise	imprecise, precisely, precision
predict	predictability, predictable, predictably, predicted, predicting, prediction, predictions, predicts, unpredictability, unpredictable
predominant	predominance, predominantly, predominate, predominated, predominates, predominating
prejudice	prejudiced, prejudices, prejudicing
preliminary	preliminaries
presume	presumably, presumed, presumes, presuming, presumption, presumptions, presumptuous
pretend	pretends, pretended, pretending
prevail	prevailing, prevails, prevailed
prevent	prevention, preventive, preventable, prevents, prevented, preventing
previous	previously
primary	primarily
prime	primacy
principal	principally
prior	priority, priorities, prioritization, prioritize, prioritized, prioritizes, prioritizing
private	privately, privacy, privatize, privatization
privilege	privileged, privileges
proceed	procedural, procedure, procedures, proceeded, proceeding, proceedings, proceeds
process	processed, processes, processing
produce	product, production, producer, productive, productively, productivity, produces, produced, producing
progress	progression, progressive, progressively, progresses, progressed, progressing

profit	profitable, profitably, profitability, profiteer, profiteering, unprofitable, profits
prohibit	prohibited, prohibiting, prohibition, prohibitions, prohibitive, prohibits
prolong	prolonged, prolongation, prolongs, prolonging
promote	promoted, promoter, promoters, promotes, promoting, promotion, promotions
proportion	disproportion, disproportionate, disproportionately, proportional, proportionally, proportionate, proportionately, proportions
prospect	prospective, prospects
prosperity	prosper, prospers, prospered, prosperous, prosperously, prospering
protect	protection, protected, protective, protectively, protectiveness, protector, protects, protecting, protectors
provide	provider, provision, provided, provides, providing
publication	publications
publicity	publicize, publicizes, publicizing, publicized, publicist
publish	published, publisher, publishers, publishes, publishing, unpublished
punish	punishment, punishable, punishes, punished, punishing
purchase	purchased, purchaser, purchasers, purchases, purchasing
pursue	pursued, pursues, pursuing, pursuit, pursuits
quote	quotation, quotations, quoted, quotes, quoting
radical	radically, radicals
raise	raised, raises, raising
random	randomly, randomness
range	ranged, ranges, ranging
ratio	ratios
rational	irrational, rationalization, rationalizations, rationalize, rationalized, rationalizes, rationalizing, rationalism, rationality, rationally
react	reacted, reacts, reacting, reaction, reactionary, reactions, reactive, reactivate, reactivation, reactor, reactors
real	realism, realist, realistic, realistically, reality, realize, realizable, realization, realizes, realizing, realized
reasonable	unreasonable, reason, reasonably, reasons, reasoning
rebel	rebellious, rebelliously, rebelliousness, rebellion, rebelled, rebelling
recall	recalls, recalled, recalling

receive	receipt, receives, receiver, received, receiving
recognize	recognizable, recognizably, recognition, recognized, recognizing, recognizes
recover	recoverable, recovered, recovering, recovers, recovery
reduce	reduction, reduces, reduced, reducing
refine	refined, refinement, refinements, refines, refining
reflect	reflection, reflective, reflector, reflects, reflecting, reflected
refute	refutation, refutes, refuted, refuting
regard	regarding, regardless, disregard, disregards, regarded, disregarded, disregarding
region	regional, regionally, regions
reinforce	reinforced, reinforcement, reinforcements, reinforces, reinforcing
reject	rejected, rejecting, rejection, rejects, rejections
release	released, releases, releasing
relevant	irrelevance, irrelevant, relevance
relieve	relief, relieved, relieves, relieving
reluctance	reluctant, reluctantly
rely	reliability, reliable, reliably, reliance, reliant, relied, relies, relying, unreliable
remain	remains, remainder, remaining, remained
remark	remarkable, remarkably, remarks, remarked
remote	remotely, remoteness
remove	removable, removal, removals, removed, removes, removing
replace	replacement, replaceable, irreplaceable, replaces, replaced, replacing
require	required, requirement, requirements, requires, requiring
research	researched, researcher, researchers, researches, researching
resemble	resemblance, resembles, resembled, resembling
reside	resided, residence, resident, residential, residents, resides, residing
resist	resistance, resistant, resists, resisted, resisting
resolve	resolution, resolved, resolves, resolving, unresolved
resource	resourced, resourceful, resources, resourcing, unresourceful, under-resourced

respond	responded, respondent, respondents, responding, responds, response, responses, responsive, responsiveness, unresponsive
responsible	responsibility, responsibly, irresponsible, irresponsibility, irresponsibly, responsibilities
restore	restoration, restored, restores, restoring
restrain	restrained, restraining, restrains, restraint, restraints, unrestrained
restrict	restricted, restricting, restriction, restrictions, restrictive, restrictively, restricts, unrestricted, unrestrictive
retain	retained, retaining, retainer, retainers, retains, retention, retentive
retaliate	retaliation, retaliatory, retaliates, retaliated, retaliating
reveal	revealed, revealing, reveals, revelation, revelations
revenue	revenues
reverse	reversal, reversed, reverses, reversible, reversing, reversals, irreversible
revise	revised, revises, revising, revision, revisions
revive	revival, revives, revived, reviving
revolt	revolts, revolting, revolted
revolution	revolutionary, revolutionaries, revolutionize, revolutionized, revolutionizes, revolutionizing, revolutionist, revolutionists, revolutions
rigid	rigidity, rigidly
route	routed, routes, routing
ruin	ruins, ruined, ruining
rural	
satisfy	satisfied, satisfying, satisfactory, satisfactorily, satisfaction, dissatisfaction, dissatisfied, unsatisfactory, satisfies, satisfying
save	saver, savings, saves, saved, saving
schedule	reschedule, rescheduled, reschedules, rescheduling, scheduled, schedules, scheduling, unscheduled
scheme	schematic, schemed, schemes, scheming
scope	
section	sectioned, sectioning, sections
sector	sectors
secure	insecure, insecurities, insecurity, secured, securely, secures, securing, securities, security
seek	seeking, seeks, sought

select	selected, selecting, selection, selections, selective, selectively, selector, selectors, selects
sequence	sequenced, sequences, sequencing, sequential, sequentially
series	
serve	server, serving, servant, served, serves
settle	settlement, settler, settled, settled, settles
shift	shifted, shifting, shifts
shortage	shortages
significant	insignificant, insignificantly, significance, significantly, signified, signifies, signify, signifying
similar	dissimilar, similarities, similarity, similarly
simulate	simulated, simulates, simulating, simulation
so-called	
source	sourced, sources, sourcing
species	
specific	specifically, specification, specifications, specificity, specifics
specify	specifiable, specified, specifies, specifying, unspecified
speculate	speculation, speculative, speculatively, speculator, speculates, speculated, speculating, speculations
stable	instability, stabilization, stabilize, stabilized, stabilizes, stabilizing, stability, unstable
status	
steady	steadily, steadiness
store	storage, stored, stores, storing
straightforward	
strategy	strategic, strategies, strategically, strategist, strategists
stress	stressed, stresses, stressful, stressing, unstressed
structure	restructure, restructured, restructures, restructuring, structural, structurally, structured, structures, structuring, unstructured
submit	submission, submissions, submits, submitted, submitting
subordinate	subordinates, subordination
subscribe	subscribed, subscribes, subscription, subscriber

subsequent	subsequently
subsidy	subsidiary, subsidies, subsidize, subsidized, subsidizes, subsidizing
substantial	substantially
substitute	substituted, substitutes, substituting, substitution
suburbs	suburban, suburbanite
succeed	success, successful, successfully, unsuccessful, unsuccessfully, succeeds, succeeded, succeeding
successor	succession, successions, successive, successively, successors
suffer	suffering, sufferer, suffers, suffered, sufferers
sufficient	sufficiency, insufficient, insufficiently, sufficiently
sum	summation, summed, summing, sums
summary	summaries, summarize, summarized, summarizes, summarizing, summarization, summarizations
supplement	supplementary, supplemented, supplementing, supplements
supply	supplier, supplies, supplied, suppliers, supplying
suppress	suppression, suppressor, suppressing, suppressed, suppresses
survey	surveyed, surveying, surveys
survive	survival, survived, survives, surviving, survivor, survivors
suspect	suspicious, suspiciously, suspicion, suspected, suspects, suspecting
suspend	suspended, suspending, suspends, suspension
sustain	sustainable, sustainability, sustained, sustaining, sustains, sustenance, unsustainable
tackle	tackled, tackles, tackling
target	targeted, targeting, targets
task	tasks
team	teamed, teaming, teams
temporary	temporarily
tend to	tendency, tends to, tending to, tended to
tense	tension, tensely, tensions
terminate	terminal, terminals, terminated, terminates, terminating, termination, terminations
territory	territorial, territories

theme	themes, thematic, thematically
theory	theoretical, theoretically, theories, theorist, theorists
thesis	theses
threat	threaten, threatening, threateningly, threatens, threatened, threats
thrive	thrives, thrived, thriving
tolerate	tolerant, tolerates, tolerated, tolerating, intolerant, tolerance, intolerance
topic	topical, topics
trace	traceable, traced, traces, tracing
trade	trader, trading, traded, trades, traders
tradition	non-traditional, traditional, traditionalist, traditionally, traditions
trainer	trains, training, trained, trainee, trainers, trainees
transform	transformation, transformations, transformed, transforming, transforms
transit	transited, transiting, transition, transitional, transitions, transitory, transits
transmit	transmission, transmissions, transmitted, transmitting, transmits
transplant	transplantation, transplants, transplanted, transplanting
trap	trapped, trapper, traps, trapping
treat	treatment, treats, treated, treating, treatments
trend	trends
trigger	triggered, triggering, triggers
trust	trustful, trustworthy, trustworthiness, trusts, trusting, trusted
ultimate	ultimately
underestimate	underestimates, underestimated, underestimating
undergo	undergoes, undergoing, undergone, underwent
underlie	underlay, underlies, underlying
undertake	undertaken, undertakes, undertaking, undertook
uniform	uniformity, uniformly
unify	unification, unified, unifies, unifying
unique	uniquely, uniqueness
universal	universally, universality, universe
urban	urbanize, urbanized, urbanization

urge	urging, urges, urged
utilize	utilization, utilized, utilizes, utilizing, utilizer, utilizers, utility, utilities
valid	invalidate, invalidity, validate, validated, validating, validation, validity, validly
vary	invariable, invariably, variability, variable, variables, variably, variance, variant, variants, variation, variations, varied, varies, varying, various
vast	vastly
verify	verification, verifiable, verifies, verified, verifying
version	versions
via	
violate	violated, violates, violating, violation, violations
violent	violence, violently
virtual	virtually
visible	visibility, visibly, invisible, invisibility
vision	visions
visual	visualize, visualized, visualized, visualizing, visualization, visually
volume	volumes
voluntary	voluntarily, volunteer, volunteering, volunteered, volunteers
vulnerable	vulnerability
welfare	
widespread	
willing	willingly, willingness, unwilling, unwillingly, unwillingness
withdraw	draw, withdrawal, withdrawn, withdraws, withdrew, withdrawing
worth	worthy, worthily, worthless, worthlessness