

.. محاضرات في

# English for Scientific Specialization (A Compiled Course-book)

باللغة الإنجليزية برنامج الاحياء

**Program of English in Department of Biology** 

أستاذ المقرر

أ. .م.د. وفاء حمدي سرور ۱۶۶۶ - ه ۱۶۶۶

بيانات أساسية

كلية: التربية Education كلية:

الفرقة: الاولى First year

باللغة الانجليزية التخصص: احياء

١٥٤ : عدد الصفحات

القسم التابع له المقرر: قسم الاحياء

## Contents

p.

Comprehension	p.
Boost your Vocabulary	p.

**Grammar and Exercise** 

## Part One

Comprehension

Botany, the study of plants, occupies a peculiar position in the history of human knowledge. For many thousands of years it was the one field of awareness about which humans had anything more than the vaguest of insights. It is impossible to know today just what our Stone Age ancestors knew about plants, but from what we can observe of pre-industrial societies that still exist, a detailed learning of plants and their properties must be extremely ancient. This is logical. Plants are the basis of the food pyramid for all living things, even for other plants. They have always been enormously important to the welfare of peoples, not only for food, but also for clothing, weapons, tools, dyes: medicines, shelter, and a great many other purposes. Tribes living today in the jungles of the Amazon recognize literally hundreds of plants and know many properties of each. To them botany, as such, has no name and is probably not even recognized as a special branch of "Knowledge at all.

Unfortunately, the more industrialized we become the farther away we move from direct contact with plants, and the less distinct our knowledge of botany grows. Yet everyone comes unconsciously on an amazing amount of botanical knowledge, and few people will

fail to recognize a rose, an apple, or an orchid. When our Neolithic ancestors, living in the Middle East about 10,000 years ago, discovered that certain grasses could be harvested and their seeds planted for richer yields the next season, the first great step in a new association of plants and humans was taken. Grains were discovered and from them flowed the marvel of agriculture: cultivated crops. From then on, humans would increasingly take their living from the controlled production of a few plants, rather than getting a little here and a little there from many varieties that grew wild – and the accumulated knowledge' of tens of thousands of years of experience and intimacy with plants in the wild would begin to fade away.

- **1.** Which of the following assumptions about early humans is expressed in the passage?
- (A) They probably had extensive knowledge of plants.
- (B) They thought there was no need to cultivate crops.
- (C) They did not enjoy the study of botany.
- (D) They placed great importance on the ownership of property.
- 2. What does the comment "This is logical" in line 6 mean?

- (A) There is no clear way to determine the extent of our ancestor's knowledge of plants.
- (B) It is not surprising that early humans had a detailed knowledge of plants.
- (C) It is reasonable to assume that our ancestors behaved very much like people in preindustrial societies.
- (D) Human knowledge of plants is well organized and very detailed.
- **3.** According to the passage, why has general knowledge of botany begun to fade?
- (A) People no longer value plants as a useful resource.
- (B) Botany is not recognized as a special branch of science.
- (C) Research is unable to keep up with the increasing numbers of plants.
- (D) Direct contact with a variety of plants has decreased.
- **4.** In line 16, what is the author's purpose in mentioning "a rose, an apple, or an orchid"?
- (A) To make the passage more poetic
- (B) To cite examples of plants that are attractive
- (C) To give botanical examples that all readers will recognize
- (D) To illustrate the diversity of botanical life

- **5.** According to the passage, what was the first great step toward the practice of agriculture?
- (A) The invention of agricultural implements and machinery
- (B) The development of a system of names for plants
- (C) The discovery of grasses that could be harvested and replanted
- (D) The changing diets of early humans
- **6.** The relationship between botany and agriculture is similar to the relationship between zoology (the study of animals) and
- (A) deer hunting (B) bird watching
- (C) sheep raising (D) horseback riding
- **7.** In which lines in the passage does the author describe the beneficial properties that plants have for humans?
- (A) Lines 1-2 (B) Lines 7-9
- (C) Lines 11-12 (D) Lines 14-16

The temperature of the Sun is over 5,000 degrees Fahrenheit at the surface. but it rises to perhaps more than 16 million degrees at the center. The Sun is so much hotter than the Earth that matter can exist only as a gas, except at the core. In the core of the Sun, the pressures are so great against the gases that, despite the high temperature, there may be a small solid core. However, no one really knows, since the center of the Sun can never be directly observed.

Solar astronomers do know that the Sun is divided into five layers or zones. Starting at the outside and going down into the Sun, the zones are the corona, chromosphere, photosphere, convection zone, and finally the core. The first three zones are the regarded as the Sun's atmosphere. But since the Sun has no solid surface, it is hard to tell where the atmosphere ends and the main body of the Sun begins.

The Sun's outermost layer begins about 10,000 miles above the visible surface and can be seen during an eclipse such as the one in February 1979. At any goes outward for millions of miles. This is the only part of the Sun that other time, the corona can be seen only when special instruments are used on cameras and telescopes to shut out the glare of the Sun's rays.

The corona is a brilliant, pearly white, filmy light about as bright as the full Moon. Its beautiful rays are a sensational sight during an eclipse. The corona's rays flash out in a brilliant fan that has wispy spike-like rays near the Sun's north and south poles. The corona is thickest at the sun's equator.

The corona rays are made up of gases streaming outward at tremendous speeds and reaching a temperature of more than 2 million degrees Fahrenheit. The rays of gas thin out as they reach the space around the planets. By the time the Sun's corona rays reach the Earth, they are weak and invisible.

- Matter on the Sun can exist only in the form of gas because of the Sun' S
- (A) size (B) age (C) location (D) temperature
- 2. With what topic is the second paragraph mainly concerned?
- (A) How the Sun evolved(B) The structure of the Sun
- (C) Why scientists study the Sun
- (D) The distance of the Sun from the planets

<b>3.</b> All of the following are parts of the Sun's atmosphere EXCEPT					
the					
(A) corona	(B) chromospheres				
(C) photosphere	(D) core				
4. According to the par	ssage as the corona rays reach the planets,				
they become					
(A) hotter (B) clearer	(C) thinner (D) stronger				
5. The paragraphs following the passage most likely discuss which					
of the following?					
(A) The remaining layers of the Sun					
(B) The evolution of th	e Sun to its present form				
(C) The eclipse of February 1979					
(D) The scientists who study astronomy					
6. Where in the passage does the author compare the light of the					
Sun's outermost layer	to that of another astronomical body?				
(A) Lines 2-3	(B) Lines 9-10				
(C) Line 16	(D) Lines 22-23				
Passage 3					

The agricultural revolution in the nineteenth century involved two things: the invention of labor-saving machinery and. the development of scientific agriculture. Labor-saving machinery, naturally appeared, first where labor was 8carce. "In Europe," said, Thomas Jefferson, the object is to make the most of: their land, labor being abundant; here it, is to make the most of our labor, land being abundant. It was in America, therefore, that the great advances in nineteenth - century agricultural machinery first came.

At the opening of the century, with the exception of a crude plow farmers could have carried practically all of the existing agricultural implement on their backs; by 1860, most of the machinery in use today had been designed in an early form. The most important of the early inventions was the iron plow. As early as 1790 Charies Newbold of New Jersey had been working on the of a cast – iron plow and spent his entire fortune in introducing his invention. The farmers, however, would have none of it, claiming that the iron poisoned the soil and made the weeds grow. Nevertheless, many people devoted their attention to the plow, until in 1869 James Oliver of South Bend, Indiana, turned out the first chilled-steel plow.

#### 1. What is the main topic of the passage?

- (A) The need for agricultural advances to help feed a growing population
- (B) The development of safer machines demanded by the labor movement
- (C) Machinery that contributed to the agricultural revolution
- (D) New Jersey as a leader in the agricultural revolution
- **2.** The word "naturally" as used in line 3 is closest in meaning to which of the following?
- (A) Gradually (B) Unsurprisingly(C) Apparently (D) Safely
- **3.** The expression "make the most of" in line 4 is closest in meaning to which of the following?
- (A) Get the best yield from
- (B) Raise the price of
- (C) Exaggerate the worth of
- (D) Earn a living on
- **4.** Which of the following can be inferred from what Thomas Jefferson said?
- (A) Europe was changing more quickly than America.

- (B) Europe had greater need of farm machinery than America did.
- (C) America was finally running out of good farmland.
- (D) There was a shortage of workers on American farms.
- **5.** It can be inferred that the word "here' in line 4 refers to
- (A) Europe
- (B) America
- (C) New Jersey
- (D) Indiana
- **6.** What point is the author making by stating that farmers could carry nearly all their tools On their backs?
- (A) Farmers had few tools before the agricultural revolution.
- (B) Americans were traditionally self reliant.
- (C) Life on the farm was extremely difficult.
- (D) New tools were designed to be portable.
- **7.** Why did farmers reject Newbold's plow?
- (A) Their horses were frightened by it.
- (B) They preferred lighter tools.
- (C) It was too expensive.
- (D) They thought it would ruin the land.

The origins of the horse go back to eohippus the "dawn horse" of me Eocene only 10 to 20 inches tall. Like its relatives the ancient

tapir and rhinoceros, eohippus had four toes on its front feet, three on the rear, and teeth adapted to a forest diet of soft leaves. Eohippus died out about 5.1 million years ago in both North America and Europe.

Late ancestral horse types moved from their forest niche out onto the grassy plains. Their teeth ac to accommodate to hard siliceous grass. No longer could these protohorses slip away through thick forest when dancer threatened. Escape now demanded speed and endurance Limbs crew longer. Extra toes became vestiges that were not visible externally

- 1. The passage mainly discusses the
- (A) evolution of the horse (B) size of eohippus
- (C) animals of the Eocene
- (D) plight of endangered species
- 2. The author states that eohippus was related to the
- (A) horsefly (B) tapeworm
- (C) hippopotamus (D) rhinoceros
  - 3. What did the eohippus eat?

- (A) Rhinoceros meat (B) Soft leaves
- (C) Hard siliceous grass (D) Other horses
- **4.** In what way did predators present less of a threat to eohippus than to later proto horses.
- (A) Eohippus was hidden by the forest.
- (B) Eohippus could run farther.
- (C) Eohippus was not edible.
- (D) Eohippus was larger and stronger
- 5. The paragraph following the passage most probably discusses
- (A) other changes that the rhinoceros has undergone
- (B) more reasons for the extinction of eohippus
- (C) further development of early horse types.
- (D) the diet of eohippus.

In the past oysters were raised in much the same way as dirt farmers raised tomatoes – by transplanting them. First, farmers

selected the oyster bed, cleared the bottom of old shells and other debris, then scattered clean shells about. Next, they" planted" fertilized oyster eggs, which within two or three weeks hatched into larvae. The larvae drifted until they attached themselves to the clean shells on the bottom. There they remained and in time grew into baby oysters called seed or spat. The spat grew larger by drawing in seawater from which they derived microscopic particles of food. Before long farmers gathered the baby oysters transplanted them in other waters to speed up their growth, then transplanted them once more into another body of water to fatten them up.

Until recently; the supply of wild oysters and those crudely farmed were more than enough to satisfy people's needs. But today the delectable seafood is no longer available in abundance. The problem has become so serious that some oyster beds have vanished entirely.

Fortunately, as far back as the early 1900's marine biologists realized that if new measures were not taken, oysters would become extinct or at best a luxury food. So they set up well equipped hatcheries and went to work. But they did not have the proper equipment or the skill to handle the eggs. They did not know when, what, and how to feed the larvae. And they knew little about the

predators that attack and eat baby oysters by the millions. They failed, but they doggedly kept at it. Finally.in the 1940's a significant breakthrough was made.

The marine biologists discovered that by raising the temperature of the water, they could induce oysters to spawn not only in the summer but also in the fall, winter, and spring. Later they developed a technique for feeding the larvae and rearing them to spat. Going still further, they succeeded in breeding new strains that were resistant to diseases, grew faster and larger, and flourished in water of different salinities and temperatures. In addition, the cultivated oysters tasted better.

- **1.** Which of the following would be the best title for the passage?
- (A) The Threatened Extinction of Marine Life
- (B) The Cultivation of Oysters
- (C) The Discoveries Made by Marine Biologists
- (D) The Varieties of Wild Oysters
- 2. In the first paragraph, the production of oysters is compared to what other industry?
- (A) Mining B) Fishing C) Banking D) Farming

<b>3.</b> In the	passage, which	n of the following is	s NOT mentioned as a		
stage c	f an oyster's lif	e?			
(A) Debris	B) Egg	C) Larvae	D) Spat		
4. When did scientists discover that oysters were in danger?					
(A) In the early part of the 19th century					
(B) At the	beginning of th	nis century			
(C) In the	1940's	(D) Just recently			
5. Accord	ling to the pass	sage, which of the	following words best		
describ	es the efforts o	of the marine biolog	gists working with oysters?		
(A) Persis	tent (B) Interm	nittent			
(C) Traditi	onal (D) Fruitle	ess			
6. In the passage, the author mentions that the new strains of oyster					
are					
(A) cheap	er	(B) shaped differen	ently		
(C) better	textured	(D) healthier			
7. In what paragraph does the author describe successful methods					
for increasing the oyster population?					
	0	• •			

- **8.** Which of the following best describes the organization of the passage?
- (A) Step by step description of the evolution of marine biology
- (B) Discussion of chronological events concerning oyster production
- (C) Random presentation of facts about oysters
- (D) Description of oyster production at different geographic locations

Scientists estimate that about 35,000 other objects, too small to detect with radar but detectable with powerful Earth-based telescopes, are also circling the Earth at an altitude of 200 to 700

miles. This debris poses little danger to us on the Earth, but since it is traveling at average relative speeds of six miles per second, it can severely damage expensive equipment in a collision. This threat was dramatized by a cavity one-eighth of an inch in diameter created in a window of a United States space shuttle in 1983. The pit was determined to have been caused by a collision with a speck of paint traveling at a speed of about two to four miles per second. The window had to be replaced.

As more and more nations put satellites into space, the risk of collision can only increase. Measures are already being taken to control the growth of orbital debris. The United States has always required its astronauts to bag their wastes and return them to .Earth. The United States Air Force has agreed to conduct low-altitude rather than high-altitude tests of objects it puts into space so debris from tests will reenter the Earth's atmosphere and burn up. Extra shielding will also reduce the risk of damage. For example, 2,000 pounds of additional shielding is being considered for each of six space-station crew modules. Further, the European Space Agency, an international consortium is also looking into preventive measures.

## 1. Which of the following would be the best title for the passage?

(A) The Problem of Space	e Debris			
(B) The Space Shuttle of	1983			
(C) The Work of the European Space Agency				
(D) A Collision in Space				
2. It can be inferred from the passage that debris was harmful to one				
of the space shuttles b	pecause the debris was			
(A) large	(B) moving very fast			
(C) radioactive	(D) burning uncontrollably			
3. What effect did orbita	I debris have on one of the space shuttles?			
(A) It removed some of the paint				
(B) It damaged one of the windows				
(C) It caused a loss of altitude				
(D) It led to a collision with a space station				
4. The word "them" in line 11 refers to which of the following?				
(A) Astronauts (B) Wastes (C) Tests (D) Crew modules				
5. Which of the following	g questions is NOT answered by the			
information in the pass	sage?			
(A) How can small objects orbiting the Earth be seen?				

- (B) What is being done to prevent orbital debris from increasing?
- (C) Why is the risk of damage to space equipment likely to increase?
- (D) When did the United States Air Force begin making tests in space?

Scattered through the seas of the world are billions of tons of small plants and animals called *plankton*. Most of these plants and animals are too small for the human eye to see. They drift about lazily with the currents, providing a basic food for many larger animals,

Plankton has been described as the equivalent of the grasses that grow on the dry land continents, and the comparison is an appropriate one. In potential food value, however, plankton far outweighs that of the land grasses. One scientist has estimated that white grasses of the world produce about 49 billion tons of valuable carbohydrates each year, the sea's plankton generates more than twice as much.

Despite its enormous food potential, little effort was made until recently to farm plankton as we farm grasses on land. Now, marine scientists have at last begun to study this possibility. especially as the sea's resources loom even more important as a means of feeding an expanding world population.

No one yet has seriously suggested that "planktonburgers" may soon become popular around the world. As a possible farmed supplementary food source, however, plankton is gaining considerable interest among marine scientists.

One type of plankton that seems to have great harvest possibilities is a tiny shrimplike creature called *krill*. Growing to two

or three inches long, krill provide the major food for the giant blue whale, the largest animal ever to inhabit the Earth, flealizing that this whale may grow to 100 feet and weigh 150 tons at maturity, it is not surprising that each one devours more than one ton of krill daily.

Krill swim about just below the surface in huge schools sometimes miles wide, mainly in the cold Antarctic. Because of their pink color, they often appear as a solid reddish mass when viewed from a ship or from the air. Krill are very high in food value A pound of these crustaceans contains about 460 calories-about the same as shrimp or lobster to which they are related.

If the krill can feed such huge creatures as whales, many scientists reason, they must certainly be contenders as a new food source for humans.

- 1. Which of the following statements best describes the organization of the passage?
- (A) The author presents the advantages and disadvantages of plankton as a food source.
- (B) The author quotes public opinion to support the argument for farming plankton.

(C) The author classifies the different foo	d sources according to
amount of carbohydrate.	
(D) The author makes a general statement	nt about plankton as a food
source and then moves to a specific ex	xample.
2. According to the passage, why is plan	akton considered to be more
valuable than land grasses?	
(A) It is easier to cultivate	
(B) It produces more carbohydrates	
(C) It does not require soil (D) It is mor	e palatable
3. Why does the author mention "plankto	onburgers" in line 13 ?
(A) To describe the appearance of one ty	pe of plankton
(B) To illustrate how much plankton a who	ale consumes
(C) To suggest plankton as a possible for	od source
(D) To compare the food values of beef a	nd plankton
4. Blue whales have been known to weigh	gh how much at maturity?
(A) One ton (B) Forty tons	

(C) One hundred and fifty tons

(D) Four hundred and sixty tons

- **5.** What is mentioned as one distinguishing feature of krill?
- (A) They are the smallest marine animals
- (B) They are pink in color.
- (C) They are similar in size to lobsters.
- (D) They have grass-like bodies.

The Preservation of food

Food contains the proteins, fats, carbohydrates and vitamins which are vital to life. It should be fresh when we eat it. If it is bad, it can make us ill. There are two main agents which turn food bad, fungi (such as yeast and various moulds), and bacteria. These are micro-organisms which can not make their own food and which live and grow on our food. Moulds, for example, are often seen on old bread. Yeast, can spoil fresh food but it also has some very useful properties.

For hundreds of years it has been used by man in the making of bread and wine. It acts as a catalyst in the process of fermentation. In order to grow and multiply, all these micro-organisms need food, water, warmth, and in some cases, air. The methods used to preserve our food are intended to make conditions dry and very cold, unsuitable for the growth and

multiplication of micro-organisms. The great distances which often separate the producer of food from the consumer in the 20th century make effective food preservation vital. But in most preservation processes, many important vitamins and proteins are wholly or partially destroyed. One of the tasks of food technologists today is to find ways of preserving without losing these vital substances.

How is food dried?

In hot countries, food is dried simply by the heat of the sun. The moisture level in most fruits can be reduced to between 5% and 15% which is low enough to inhibit the growth of micro-organism. Some of other foods are subjected to a process known as dehydration. In this process, a current of hot, dry air is passed over food to absorb as much moisture as possible. Tea and coffee are often dried in this way.

0

What happens to foods when they are canned or bottled?

High temperatures kill micro-organisms in food and

most micro-organisms need air. That's why food is vaccum-sealed in cans and bottles and then heated up to a temperature of 100C (acidic foods) or 120 C (non acidic foods) for about 10 minutes. The food will then deep for a long time provided that the can or bottle remains airtight. There are several other ways of preserving food. One of them, freezing. Two very old methods, salting and smoking, are still used today. A concentration of 5% or more of salt in food inhibits the growth of most micro-organisms. Smoking causes partial dehydration. Certain acids and chemicals are useful preservers as they stop the action of the enzymes produced by micro-organisms. Vinegar, for instance, is used to preserve onions and other

vegetables. One of the newest methods is radiation. It is especially effective because it kills not only microorganisms, but it also their spores, thus stopping their reproduction.

Choose the best answer to complete the following:

- 1- The temperature of a fridge is controlled by a a-A thermometer.
- b-Thermostat.
- c-Thermos flask.
- d-Thesaurus.
- 2-Water is taken out of food by:
- a-distillation.
- b-detoxification.
- c-dehydration.

- d-dislocation.
- 3-An injection is given using a:
- a- disinfectant.
- b- Spray.
- c- Coductor.
- d- Syringe.

٨

- 4-For good health, vitamins are:
- a- important.
- b- Desirable.
- c- Essential.
- d- Partial.
- 5- A piece of fresh meat consists mainly of
- a-water.
- b-protein.
- c-fat.
- d-carbohydrate.
- 6- A membrane which allows only pure liquid to pass through it is:
- a-non-permeable.
- b-trans-permeable.
- c-trans-potential.
- d-semi permeable.

Refrigeration and refrigerators

Why is quick-frozen food almost as good as fresh food? The micro-organisms which spoil food can not grow or multiply at sub-zero temperatures. Most of our food consists of animal or plant cells containing a high proportion of water. If the food is frozen gradually, the water expands and forms large crystals of ice. These crystals burst the cell membranes and destroy the structure of the food. When the ice melts, the air runs out and most of the essential vitamins and proteins are lost. If the food is frozen quickly, smaller ice crystals are formed and the cell membranes are not broken. The greater the water content of food, the more difficult it is to freeze successfully. There are three ways of freezing food quickly. It can be done by placing the food on metal

plates which have been cooled below 30 C. It can be frozen by placing it in an insulated container and blasting it at high speed with air cooled below 30C. Or it can be cooled in a salted liquid such as brine at a temperature between 30 C and 40 C. It must then be stored at a temperature below freezing point until

it is needed. This is why insulated containers must always be used for the transport of frozen food. Most packets of frozen food carry information about maximum safe storage periods. Most refrigerators and freezers have stars on them to show the minimum temperature they can reach. Food should never be refrozen after it has been thawed out as it can never be quick-frozen in a home refrigerator.

How does a refrigerator work?

Many modern homes have refrigerators and freezer. They work on a principle of heat absorption. Certain gases, such as ammonia, condense and re-evaporate quickly when the pressure on them varies. These gases can be used as cooling agents in refrigerators. They are contained in a partial vaccum inside the evaporator. Compression causes the cooling agent to evaporate, to boil and to absorb the heat of the food in the refrigerator. The air and the metal walls of the evaporator act as conductors of heat in the course of

the absorption. The cycle of evaporation and condensation continues as long as the refrigerator is

switched on. The temperature is controlled automatically by a thermostat switch.

Choose the best answer from a-d to complete the following:

١٢

1-The temperature of a fridge is controlled by

a-thermometer.

b-thermostat.

c-thermos flask.

d-thesaurus.

2-Water is taken out of food by

a-distillation.

b-detoxification.

c-dehydration.

d-dislocation.

3-An injection is given using a

a-disinfectant.

b-spray.

c-conductor.

d-syringe.

4-For good health, vitamins are

a-important.

١٣

b-desirable.

c-essential.

d-partial.

5-A piece of fresh meat consists mainly of

a-water.

```
b-protein.
```

c-fat.

d-carbohydrate.

6-A membrane which allows only pure liquid to pass through it is

a-non-permeable.

b-trans-permeable.

c-trans-potential.

d-semi-permeable.

7-a patient can get a new heart by having a heart a-implant.

b-machine.

١٤

c-transplant.

d-ventilator.

8-when cotton takes up water, it is

a-adhered.

b-absolved.

c-absorbed.

d-adsorbed.

9-Salted beef deeps longer because salt

a-stops air reacting with meat.

b-prevents the fermentation of meat.

c-is poisonous to insects.

d-inhibits the growth of micro-organisms.

10-A kidney machine

a-is an artificial kidney implanted in the patient's body.

b-removes waste product from the patients blood.

c-enables blood to flow through the kidneys.

10

d-allows the patient's blood to absorb oxygen.

11-Find pairs of similar meaning

1-melt a-vaporize.

2-boil b-toxin

3-condense c-dehydrate

4-poison d-thaw out

5-dry e-liquefy

12-Match the definitions a-d, with the words, 1-4

1-pickle 2-protein 3-brine 4-

catalyst

a- a complete organic compound necessary for life

b- a chemical which alters the rate of a reaction

c- a food preserved in vinegar

d- a solution of salt in water

13- An insecticide is

a- a plant which looks like an insect.

b- An insect which looks like another insect.

c- A plant parasite.

d- A chemical which kills insects.

#### Refrigeration and refrigerators

Why is quick-frozen food almost as good as fresh food? The micro-organisms which spoil food can not grow or multiply at sub-zero temperatures. Most of our food consists of animal or plant cells containing a high proportion of water. If the food is frozen gradually, the water expands and forms large crystals of ice. These crystals burst the cell membranes and destroy the structure of the food. When the ice melts, the air runs out and most of the essential vitamins and proteins are lost. If the food is frozen quickly, smaller ice crystals are formed and the cell membranes are not broken. The greater the water content of food, the more difficult it is to freeze successfully. There are three ways of freezing food quickly. It can be done by placing the food on metal plates which have been cooled below 30 C. It can be frozen by placing it in an insulated container and blasting it at high speed with air cooled below 30C. Or it can be cooled in a salted liquid such as brine at a temperature between 30 C and 40 C. It must then be stored at a temperature below freezing point until ١.

it is needed. This is why insulated containers must

always be used for the transport of frozen food. Most packets of frozen food carry information about maximum safe storage periods. Most refrigerators and freezers have stars on them to show the minimum temperature they can reach. Food should never be refrozen after it has been thawed out as it can never be quick-frozen in a home refrigerator.

How does a refrigerator work?

Many modern homes have refrigerators and freezer. They work on a principle of heat absorption. Certain gases, such as ammonia, condense and re-evaporate quickly when the pressure on them varies. These gases can be used as cooling agents in refrigerators. They are contained in a partial vaccum inside the evaporator. Compression causes the cooling agent to evaporate, to boil and to absorb the heat of the food in the refrigerator. The air and the metal walls of the evaporator act as conductors of heat in the course of

the absorption. The cycle of evaporation and condensation continues as long as the refrigerator is switched on. The temperature is controlled

Choose the best answer from a-d to complete the

automatically by a thermostat switch.

following:

17

1-The temperature of a fridge is controlled by a-thermometer.

b-thermostat.

- c-thermos flask.
- d-thesaurus.
- 2-Water is taken out of food by
- a-distillation.
- b-detoxification.
- c-dehydration.
- d-dislocation.
- 3-An injection is given using a
- a-disinfectant.
- b-spray.
- c-conductor.
- d-syringe.
- 4-For good health, vitamins are
- a-important.
- ۱۳
- b-desirable.
- c-essential.
- d-partial.
- 5-A piece of fresh meat consists mainly of
- a-water.
- b-protein.
- c-fat.
- d-carbohydrate.
- 6-A membrane which allows only pure liquid to pass
- through it is
- a-non-permeable.
- b-trans-permeable.
- c-trans-potential.
- d-semi-permeable.

7-a patient can get a new heart by having a heart a-implant.

b-machine.

1 2

c-transplant.

d-ventilator.

8-when cotton takes up water, it is

a-adhered.

b-absolved.

c-absorbed.

d-adsorbed.

9-Salted beef deeps longer because salt

a-stops air reacting with meat.

b-prevents the fermentation of meat.

c-is poisonous to insects.

d-inhibits the growth of micro-organisms.

10-A kidney machine

a-is an artificial kidney implanted in the patient's body.

b-removes waste product from the patients blood.

c-enables blood to flow through the kidneys.

10

d-allows the patient's blood to absorb oxygen.

11-Find pairs of similar meaning

1-melt a-vaporize.

2-boil b-toxin

3-condense c-dehydrate

4-poison d-thaw out

5-dry e-liquefy

- 12-Match the definitions a-d, with the words, 1-4 1-pickle 2-protein 3-brine 4-
- catalyst
- a- a complete organic compound necessary for life
- b- a chemical which alters the rate of a reaction
- c- a food preserved in vinegar
- d- a solution of salt in water
- 13- An insecticide is
- a- a plant which looks like an insect.
- b- An insect which looks like another insect.
- c- A plant parasite.
- d- A chemical which kills insects.

### Passage 10

The development of Aircraft Engines
The liquid fuel burned in a jet engine
produces a huge volume of gas. This gas is
forced through the outlet at the rear of the
engine. As this enormous amount of gas is
forced out, it makes the aeroplane move
forwards. Conduct a simple experiment. Get a
child's balloon is forced out again. As this
happens, the balloon pushes it forward as it is
released at the back.

The idea of jet engines is very old. The ancient Greeks, who lived about 20000 years ago, understood the principle. One of their scientist heated water in a small container to turn it into steam. The gas pressure became high and the gas was released from a small nozzle. This gas produced enough force to spin vr

the container. Although they understood the principle, they were not able to use it for any practical application.

When aeroplane flight became possible, engineers were not at first able to use the jet principle. Wilbur and Orville Wright made the first plane in 1903. They used a lightweight car engine. It turned a propeller which made the aeroplane move forwards. Piston engines similar to car engines were used in all

aeroplanes until the end of the 1930s. They are still used in small planes today.

In the years from 1903 to 1930, aeroplanes were developed quite quickly. Aircraft designers learned a lot about aerodynamics, and so they designed aeroplanes which could travel through the air very easily. The new, more

aerodynamic, aeroplanes could fly faster and reach greater heights than aircraft using piston engines and propellers.

It was not until the 1930s that some engineers found a practical application of the principle which the Ancient Greeks had known. They burned liquid fuel in order to produce a large volume of gas. Instead of heating water to produce steam. They released the gas through a nozzle, and the pressure of the gas provided the thrust to give the aeroplane forward motion. In exactly the same way as the steam jet had moved the Ancient Greek scientist's container. The first jet engine was made in the 1930s, and the first jet aeroplane flew in 1939. After that, jet engines were developed very quickly.

Y0

The jet engine is more suitable than the piston engine for fast, high-altitude planes. It is lighter than a piston engine of the same power, because it has fewer moving parts. It has a very

powerful compressor. This forces a lot of air into the engine, so it can get enough oxygen for efficient combustion even at very high altitudes. The thrust caused by the conversion of liquid fuel to gas can be used to power the aircraft directly. As a result, its top speed and maximum power do not depend on the strength of a propeller.

The first jet aircraft were fighter aeroplanes, which had to fly very fast and high. Later, the use of the jet engine spread to almost all other aeroplanes except for the smallest ones, which still use piston engines. Now all large

passenger and transport aircraft, including helicopter, use some form of jet engine. As you can see, it took 2,000 years for the principle to be put into practice.

# Scanning:

Look quickly at the passage and find answers to these questions:

- 1-Who first understood the idea of jet engines?
- a- Wilbur and Orville Wright.
- b- Aircraft designers in the 1930s.
- c- Aeroplane engineers in the 1930s.
- d- The ancient Greeks.
- 2-When was the first aeroplane made/

٧٨

a- 2000 years ago.

```
b- In 1903.
```

c- In 1930.

d- In 1939.

3-When was the first flight made by a jet-engined aeroplane?

a-1903.

b-The 1930s.

c-1939.

d-The 1940s.

4-What type of aeroplanes were the first jet aircraft?

a-Fighter.

b-Passengers.

c-Aerodynamic.

d-Low-altitude.

III\_Vocabularly in Context:

٧9

1- You have seen aeroplane engine. Ayou know where the hot gases come out. Rear (line 3) must mean:

a-Front.

b-Side.

d- Top.

e- Back.

2- Read the first 2 sentences of paragraph 3, Principle means has approximately same meaning as:

a- the idea of jet engines.

b- The power of jet engines.

c- How to make jet engines.

d- How to use jet engines.

- 3- A piston engine (line 29) is a type of engine which
- a- is used now in all aeroplanes.
- b- Is used in cars.
- c- Was unsuitable for use in aeroplanes.

٨

- d- Was not powerful enough to turn a propeller.
- 4- Read sentence 2 and 3 in paragraph. Aerodynamic mans able to:
- a-fly very fast.
- b- fly very high.
- c- travel through the air easily.
- e- fly using jet engines.
- 5-Thrust (line 51) means
- a-release.
- b- Heat.
- c- Pull.
- d- Power.
- 6-Read the last sentence of paragraph 5, and the first sentence of paragraph 7. High altitude means very a-fast.
- b-high.
- c-powerful.

۸١

- d-advanced.
- 7\_A compressor (line 62)
- a- supplies pure oxygen to an engine.
- b- Is part of a piston engine.
- c- Forces a lot of gas into a small volume.
- d- Is used at high altitudes.

# Passage 11

# Biology

Biology, the science of life. The term was introduced in Germany in 1800 and populated by the French naturalist Jean Bapiste Lamarck as a means of encompassing the growing number of disciplines

involved with the study of living forms. The unifying concept of biology received its greatest stimulus from the English zoologist Thomas Henry Huxley, who was also an important educator. Huxley insisted the conventional segregation of zoology and botany was intellectually meaningless and that all living things should be studied in an integrated way, Huxley's approach to the study of biology is even more cogent today because scientist now realize that many lower organisms are neither plants nor animals. The limits of the science, however, have always been difficult to determine, and as the scope of biology has shifted

over the years, its subject areas have been changed and reorganized. Today biology is divided into hierarchies based on the molecule, the cell, the organism, and the population.

Comprehension

Choose the correct answer:

1-Where was the term biology introduced?

A Germany b-France. C-Italy.

2-When was it introduced?

a- in the 18th century. b-in the 19th century. c-in the 20thcentury.

3-What is the nationality of the naturalist Jean Bapiste de Lamrack?

a-German. b-French. c-

English.

4-Who rejected the segregation of zoology and

Botany?

Λź

a-Jean Baptiste. b-Thomas Henry Huxley.

II-Vocabulary:

AB

Popularized uniting

Encompassing made popular

Unifying combined

Stimulus containing

Integrated correct

Cogent widened

Shifted something that caused a

reaction

# Passage 11

The Early Foundations of Mathematics
The mathematical methods we use today
are based on those invented by the Ancient
Babylonians. One of the first fo the ancient
civilizations grew up around Babylon. This city
was on the banks of the River Euphrates, in the
country that is now called Iraq. Starting with

simple arithmetic about 5000 years ago, the Babylonians developed a complex system of mathematics. After 1000 years, it included advanced methods of arithmetic and geometry. Why did the Babylonians developed these skills? The area where they lived was frequently flooded. The mud which the floods deposited made the land very fertile. As a result, the farmers could grow good crops, so there was enough food for other people as well as the

farmers. Cities grew up where traders, astronomers lived. Although these people did not produce any food, they helped to organize the life of the farmers, and they needed mathematics to do this.

The traders bought and sold food grown by the farmers. They needed arithmetic to calculate weights and prices. The government officials needed mathematical skills to re-divide the land and re-draw the land boundaries after the regular floods. The officials also distributed irrigation water. Engineers built irrigation and drainage channels and constructed complex public buildings. Astronomers observed the movements of the stars throughout the year. Thus, they were able to determine the number of days in a year. They predicted the times when

the yearly floods would start, and they determined the times for planting crops. Instead of using 10 as the base for their numbers, as we do, the Babylonians used 60. They had multiplication tables going up to 60x60. When you read the time in minutes from your watch, you are using Babylonian units. When an aeroplane pilot uses his compass to set course to a certain number of degrees from North, he is doing the same. Over 4.000 years ago, the Babylonians divided an hour into 60 minutes, and they divided a circle into 360 (60x6) degrees.

They used a place system, as we do, and so could express all numbers, from the smallest to the largest, easily. (In our place system, we use a column for tens, a column for hundreds,

etc.) They invented the use of a symbol for zero. By 4.000 years ago they could carry out the four basic mathematical operations of addition, subtraction, multiplication, and division. They had tables for square, cubes, square roots and cube roots, and they could solve complex problems involving area, volume, triangles and circles.

The mathematics of the Ancient Greeks was based on that of the Ancient Babylonians, and started to develop about 2.500 years ago.

The Greeks extended the system greatly. They used mathematics to solved problems in geometry and astronomy, and discovered a lot of facts about the earth and about the movement of planets.

19

Surprisingly, the mathematical systems of the ancient Egyptians and the Romans were very simple, although they both had very advanced civilizations.

After the fall of Greek civilization, knowledge of mathematics was not lost. By the ninth century, Islamic mathematicians had learned of the Greek ideas, and also learned of new ideas from India. The Indians, for example, had introduced the use of 10 as a base for their numbers, instead of 60. For several centuries, the Islamic scientists, like Al-Kwarizmi, Al-Biruni and Al-Haitham, calculated trigonometrical tables and developed and advanced system of algebra.

By the fifteenth century, Islamic scientists had spread their knowledge to the southern 9.

European countries of Spain and Italy. A new wave of mathematical developments, like the introduction of algebraic geometry and the invention of calculus, allowed the growth of modern science from that time to the present day.

Vocabulary in Contest:

1-How long ago did the Ancient Babylonians live? What does ancient probably mean? a-modern.

b-Complex.

c-Simple

d-Very old.

2-Which of these dictionary definitions gives the correct meaning of Bank in line 6?

a-A small hill.

b-The ground at the edge of a river.

91

c-A raised area of land under the sea.

d-A place where money is put for safety.

3-Crops in line 16 means:

a-farms.

b-plants.

c-mud.

d-animals.

4-Find determine in lines 35 and 38. The dictionary gives 2 meanings for determine:1-to decide and 2- to find out exactly. Which fits best into line 38?

5-A compass (line 44) is used to show

a- the time.

b- B- an aeroplane's speed.

c- Directions.

d- The number fo degrees in a circle.

6-If you extend something (line 66) you make it:

97

a-smaller.

b-easier.

c-more difficult.

e- longer.

7-To introduce (line 80) means to:

a-star something new.

b-copy something from someone else.

c-stop using something.

d-calculate.

8-Why did the life of the farmers in Ancient Babylon have to be organized? Because:

a-there were sometimes floods which washed away the soil.

b- individual farmers could not re-divide the land after floods.

c-the people in the cities needed food, so they made the farmers worked harder.

93

d- the traders needed to buy food, so they made the farmers work harder.

9-Which of the people mentioned in paragraph 3 needed to know how to calculate areas and volumes? a-traders.

b-farmers.

c-Government officials.

d-Astronomers.

10-Read the sentence in line 44 to 46. He is doing the

same means:

a-reading the time.

b-using a multiplication table.

c-using a compass to set his course.

d-using Babylonian units.

11-According to paragraph 7, why is it surprising that the Ancient Egyptians and Romans only had simple mathematical systems?

9 8

a-their civilizations came later than the Babylonian civilization.

b-they both had regular floods on their fertile land. c-their civilizations were the same as the Babylonian civilization.

d-they both had advanced civilizations.

12-The Islamic mathematicians wer very important in the development fo mathematical knowledge because they:

a-introduced western ideas to India.

b-extended the mathematics fo both the Greeks and the Indians.

c-calculated algebra tables.

d-preserved Egyptian and Roman knowledge

# Passage 12

Health Issues

Health related products have increased in number of dramatically over the last two decades. Many of the maladies that affect us on a day-to-day basis can be treated effectively on our own without medical attention. Also, in our ever-increasing desire to present ourselves in a more positive light, use of cosmetics, hair care items, etc. has multiplied the variety of those products of those products that are now available.

There are a few things to remember, though, when buying any health care and related products, whether it be aspirin, shampoo or deodorant. Read the label carefully, even if the product is something you've used before. Manufactures reformulate

their products to different strengths, higher or lower, or there may be new information about side effects. Allergies can result from anything that we ingest or put on our skin, be aware of what, fi any, possible side effects can occur when using the product, and what to do. An alarming statistic indicates that 60% of Americans do not exercise regularly and 80% 90% are not involved in a regular exercise program. This is specially surprising because exercise can provide numerous benefits: it can improve cardiovascular fitness, it can improve muscular endurance, it can increase energy, it can dramatically reduce the risk of coronary artery disease, it can aid weight control, it hilps lower cholesterol levels, and it can improve one's sense of well-being and raise self-esteem. 91

And in addition, risk factors associated with certain kinds fo cancer can be modified by exercise and regular physical exercise can reduce mildly elevated blood pressure over the long term. Before starting on an exercise program, check with your doctor.

-----

I\_Choose the correct answer:

1-what has multiplied such products as cosemetics?

a-governments have decided to mltiply such products.

b-our desire to look good.

c-our salaries have increased.

2-What should we remember when buying any medicine?

a-take the medicine immediately.

99

b-keep in an icebox.

c-read the label carefully.

3-How many Americans do not exercise regularly?

a-90% b-80% c-60%

4-What should we do before starting on an exercise?

a-go on a diet program.

b-check with a doctor.

c-eat a rich meal.

\_\_\_\_\_

- II\_Put yes if the statement is correct and no if it is false:
- 1-Health related products have decreased in number dramatically.
- 2-Many of the diseases that affect us cannot be effectively treated.

1 . .

- 3-Our disuse of cosmetics, hair care items etc. has multiplied the variety of those products.
- 4-Allergies cannot result from anything we eat or drink.
- 5-Exercise can cause cardiovascular disease.
- 6-Exercise can lower cholesterol and raise selfesteem.

\_\_\_\_\_

### III\_Vocabularly:

Choose the item (s) that express (es) the meaning of the italicized word:

- 1- increased: a-grew b-expressed c-lowered.
- 2-maladies a-fruits b-diseases cfloods.
- 3-manufacturers a-producers b-salesmen c-customers.
- 4-cancer a-dangerous disease b-an insect c-a sort of food.

# Passage 13

Health Issues

Health related products have increased in number of dramatically over the last two decades. Many of the maladies that affect us on a day-to-day basis can be treated effectively on our own without medical attention. Also, in our ever-increasing desire to present ourselves in a more positive light, use of cosmetics, hair care items, etc. has multiplied the variety of those products of those products that are now available.

There are a few things to remember, though, when buying any health care and related products, whether it be aspirin, shampoo or deodorant. Read the label carefully, even if the product is something you've used before. Manufactures reformulate

their products to different strengths, higher or lower, or there may be new information about side effects. Allergies can result from anything that we ingest or put on our skin, be aware of what, fi any, possible side effects can occur when using the product, and what to do. An alarming statistic indicates that 60% of Americans do not exercise regularly and 80% 90% are not involved in a regular exercise program. This is specially surprising because exercise can provide numerous benefits: it can improve cardiovascular fitness, it can improve muscular endurance, it can increase energy, it can dramatically reduce the risk of coronary artery disease, it can aid weight control, it hilps lower cholesterol levels, and it can improve one's sense of well-being and raise self-esteem. 91

And in addition, risk factors associated with certain kinds fo cancer can be modified by exercise and regular physical exercise can reduce mildly elevated blood pressure over the long term. Before starting on an exercise program, check with your doctor.

\_\_\_\_\_\_

### I Choose the correct answer:

1-what has multiplied such products as cosemetics?

a-governments have decided to mltiply such products.

b-our desire to look good.

c-our salaries have increased.

2-What should we remember when buying any medicine?

a-take the medicine immediately.

99

b-keep in an icebox.

c-read the label carefully.

3-How many Americans do not exercise regularly?

a-90% b-80% c-60%

4-What should we do before starting on an exercise?

a-go on a diet program.

b-check with a doctor.

c-eat a rich meal.

-----

- II\_Put yes if the statement is correct and no if it is false:
- 1-Health related products have decreased in number dramatically.
- 2-Many of the diseases that affect us cannot be effectively treated.

1 . .

- 3-Our disuse of cosmetics, hair care items etc. has multiplied the variety of those products.
- 4-Allergies cannot result from anything we eat or

#### drink.

5-Exercise can cause cardiovascular disease.

6-Exercise can lower cholesterol and raise selfesteem.

\_\_\_\_\_

# III\_Vocabularly:

Choose the item (s) that express (es) the meaning of the italicized word:

1- increased: a-grew b-expressed

c-lowered.

2-maladies a-fruits b-diseases cfloods.

3-manufacturers a-producers b-salesmen

c-customers.

4-cancer a-dangerous disease b-an insect c-a sort of food.

### Passage 14

### Natural Community

All the different plants and animals in a natural community are in a state of balance. The balance is achieved by the plants and animals interacting with each other and with their non-living surroundings. An example of a natural community is a woodland, and a woodland is usually dominated by a particular species of plant, such as the oak tree in an oak wood. The oak tree in this example is therefore called the dominant species, but there are also many other types of plants, from brambles, bushes and small trees to mosses, lichens and algae growing on tree trunks and rocks.

The plants of a community are the producers: the use carbon dioxide, water and nitrogen to build up their tissues using energy in the form of

sunlight. The plant tissues form food for the plant-eating animals (herbivores) which are in turn eaten by the flesh-eating animals

(carnivores). Thus plants produce the basic food supply for all the animals of a community. The animals themselves are the consumers, and are either herbivores or carnivores.

Examples of herbivores in a woodland community are rabbits, deer, mice and snails, and insects such as beetles and lacewings to animals such as owls, shrews and foxes. Some carnivores feed on herbivores, some feed on the smaller carnivores, while some feed on both: a tawny owl will eat beetles and shrews as well as voles and mice. These food relationships between the different members of the community are known as food chains or food webs. All food chains start with plants. The links of the chain are formed by the herbivores that eat the plants and the carnivores that feed on the herbivores. There are more organisms at the base of a food chain than at the top; for example, there are many more green plants than carnivores in a community.

A\_Decide whether the following statements are true (T) or false (F), according to the text:

<sup>1</sup>\_How can a balance be achieved in a natural community?

<sup>2-</sup>How can the plants of a natural community be producers?

<sup>3-</sup>In what form do plants get the energy needed to build up their tissues?

4\_In what sense are animals of the natural community described as consumers?

- 5-Give examples of both the herbivores and carnivores in a natural community.
- 6\_What is the beginning of all food chains?
- 7-Which species are at the base of a food chain?
- II\_Check out the following sentence and decide which is false and which is true:
- 1-All the animals in a wood depend on plants for their food supply.
- 2-All the plants in a wood are eaten by animals.
- 3-Some animals eat other animals.
- 4-Plants depend on the gases in the atmosphere to grow.
- 5-Not every food chain starts with plants.
- 6-Some animals eat plant-eating animals and also flesh-eating animals.

175

D

### Passage 14

#### Mental Disorder

The division of mental disorders into classes is still inexact and classification varies from country to country. For official record-keeping purposes, most countries follow the International Classification of Diseases of the World Health Organization (WHO). For clinical use in the U.S., the American Psychiatric Association in 1980 adopted a third edition of its Diagnostic and Statistical manual (DSM\_III); an extensive revision (DSM\_III R) was issued in 1987. Most classification system recognize childhood disorders (including mental retardation) as separate categories from adult disorders. Most distinguish between organic, somatically caused by states and nonorganic (sometimes referred to as functional) conditions. Psychotic disorders are 171

also commonly separated from neurotic ones.

Psychotic means, roughly, a state in which a patient has lost touch with reality, whereas neurotic refers to a relatively less impaired state.

Schizophrenia, many organic mental disorders, and some forms of depression (such as manicneurotic disorders are those in which anxiety is

the major symptom, hypochondriasis (morbid concern about health), and multiple personality.

\_\_\_\_\_

I\_ Choose A or B to answer the all of the following:

What do most classification systems recognize? a-that childhood disorders as separate categories from adult disorders.

b-that adulthood disorders are not separate categories from adult disorders.

177

2-what does psychotic means? a-a state in which a patient has lost touch with reality.

b-refers to a relatively less impaired state.

3-What does neurotic means? a-a state in which a patient has lost touch with

reality.

b-refers to a relatively less impaired state.

4-How is schizophrenia categorized?

a- a neurotic condition.

b- A psychotic condition.

5-How is hypochondriasis characterized?

a-a neurotic condition.

b-a psychotic condition.

177

Exercise:

What does the bold word mean?

The jet-boat roared swiftly up the river.

It was an extremely powerful boat.

- 1. She plays the piano splendidly.
- a. like a beginner
- b. very well
- c. loudly
- 2. The cat was obviously hungry.
- a. clearly b. very c. not
- 3. Gina walked gingerly over the rocks.
- a. quickly b. happily c. carefully
- 4. Sometimes Tom drives recklessly.
- a. with great care
- b. without the proper care
- c. very slowly
- 5. Please finish the job completely.

172

- a. entirely b. correctly c. today
- 6. The plane landed safely.
- a. unharmed
- b. on time
- c. with damage
- 7. Maggie sobbed mournfully.
- a. with joy
- b. with great sorrow
- c. out loud
- 8. The building was eerily dark and quiet.
- a. very
- b. not very
- c. strangely

Question 1

For the little boy, a lolly was tangible, whereas a promise was not. The word tangible in this sentence means:

100

A: basic B: untouchable C: actual D: edible E: none of these

Question 2

Please read the following sentence. Once Jane lifted her pen and made a start, writing the essay became easy.

If we change the start of the sentence to: Writing the essay became easy...... What will the ending be?

A: after starting.

B: after lifting her pen.

C: once Jane lifted her pen and made a start.

D: once she lifted her pen and made a start. E: None of these.

Question 3

The boy's incorrigible behaviour puzzled his sister.

The word incorrigible in this sentence means:

A: appalling

177

B: reformed

C: incurable

D: frustrated

E: none of these

Question 4

Genealogy is fun. Just as a piece of furniture or a picture takes on much more interest if you know its

history, so does an individual become more real once the ancestral elements that shaped him are known. An in-depth family history is a tapestry of all those to whom we owe our existence. Which statement best conveys the theme of this paragraph?

A: Finding out about our ancestors is more interesting than researching the history of objects.

B: Genealogy is a study of people and their belongings in the past.

C: Genealogy is a study of family history.

D: Genealogical research can bring meaning and life to a family's history.

E: Most genealogies are a waste of effort.

Question 5

Choose the option which will best replace the underlined words in the sentence to make it correct. She done it to quick, so it came out looking rough.

A: done it too quickly

B: did it too quick

C: did it too quickly

D: did it to quickly

E: none of these

#### Part Two

# Vocabulary

# Vocabulary Review 1:

- 1- A synonym for *certainly* is (may be if course frequently perhaps).
- 2- To *figure interest on an account* is to (deposit it withdraw it calculate it mathematically to draw it).
- 3- In banking terms, the opposite of *a charge* is a (saving credit, statement debt).
- 4- Which of the following words may be used as both a noun and a verb without any change in the form?(withdraw issue receive continue assume).

- 5- To *record a check* is to (film it write it into a register mail it file it).
- 6- To be *active* is the opposite of to be (open closed insufficient delinquent).
- 7- *There's no need* means there is no (necessity fun charge trouble bother).
- 8- To write a check is to make (over for in out) a check.
- 9- A *pamphlet* is a (news bulletin large book booklet magazine article).
- 10-To *weight* something, one usually uses a (meter stamping machine scale stamp).

## Vocabulary Review 2:

- 1- Foreign is the opposite of (modern domestic exaggerated alien).
- 2- If the *postal rate* is going down, it (decreases increase stays the same ends).
- 3- A *rate* is a (direction for cooking written acknowledgement lie money).
- 4- I'm sure means I'm (safe okay better certain).
- 5- What are the verb forms of the nouns (declaration receipt arrival insurance delivery explanation).

- 6- *Incidentally* means (of course by the way certainly pleasantly).
- 7- An example of *a fresh* product is (canned beans frozen spinach eggs limes).
- 8- A *butcher* would deal with all of these except one (chicken veal bread steak).
- 9- Even though means (in spite because since without).
- 10- The opposite of expensive is (costly dear small cheap).

### Vocabulary Review 3:

- 1- To be *good at* something means to (excel leap smile look).
- 2- The adjective form of the noun independence is (independing independuous independable independent).
- 3- A *container* that chills something and keeps it cold is called a ( chiller colder a keeper).
- 4- The *covering* or skin of any fruit is generally referred to as the (heart crust top peel).
- 5- If you *stepped* on the peel of a banana, you would find it 9hard slippery breakable rough).

- 6- When speaking of fruit, the opposite of *ripe* is (red green juicy –sour).
- 7- To be *delighted* is to be (enthusiast indifferent bitter angry).
- 8- When a person *goes off* duty it means that he is about to (start working stop working work hard get a promotion).
- 9- The opposite of *fresh* is (ripe stale new modern).
- 10-A *matinee* is always presented (at night in the afternoon in the morning).

## Vocabulary Review 4:

- 1-In the sentence "It's the makeup he's wearing," makeup means (cosmetics, pretense fabrication construction).
- 2-*Nothing left* means (nothing in addition nothing to the left nothing new nothing remaining).
- 3-The opposite of being *bored* is being (casual drilled designed excited).
- 4-If a show is *sold out*, then tickets ate obtainable elsewhere completely sold partly sold sold only by reservation).
- 5-A member of the *cast* is a person who works in the stage production as a (stagehand, a technician an actor an actress an usher a box office attendant).

- 6-Give the opposite of the words (late closes wrong agree-married constant serious).
- 7-A mustache is something a man grows on his (upper lip head chin arm).
- 8-When a store is open twenty-four hours, it is open (everyday all day all day and all night three days a week).
- 9-*Frozen* food such as ice cream is kept in a cooler icer rack freezer).

#### Vocabulary Review 5:

- 1-To *browse* is to (shed inspect leisurely buy read thoroughly).
- 2-The noun form of the verb form *compete* is (competity competison competability competition).
- 3-Another way to say *thirty seconds* is (half a minute a minute a few minutes several minutes a long time).
- 4-Which of the following items is not *dairy* products? (milk butter yogurt hamburgers cheese cones).
- 5-A common synonym for the adjective *convenient* is (cheap handy selected competitive).
- 6-Give the opposites of the words (south west wrong above difficult left last lost).

- 7-The cost of riding a bus is called a (fare transfer change map).
- 8-If a person wants to see the sights, then that person is interested in (having a vision visiting places buying glasses).
- 9-To catch a bus is to (get off it miss it board it).
- 10-*If it's been ages*, then it's been a long time a short while a few minutes a reasonable amount of time).

#### Vocabulary Review 6

- 1- A *tip* given to t a driver at the end of a ride is (advice a push nod of the head a small sum of money).
- 2-Another word for taxi is (meter truck cab desk).
- 3-The expression *behind a desk* means (driving a taxi working in an office being out in the air working at a train station).
- 4-A voice that *whispers*, speaks (quiety loudly not at all kindly).
- 5-In the phrase to understand what's *going on*, going on means(traveling talking a lot continuing happening).
- 6-what preposition is used as penalty in baseball (out up over under in).
- 7-A wrong number is (a late ambiguous a left an incorrect).
- 8- To bother is to (amuse cause annoyance applaud suspect).

- 9-When you finish talking on the phone, you *hang* it (on down to up).
- 10-Something which requires immediate action is (unimportant urgent leisurely wrong).

# Vocabulary Review 7:

- 1-What are the opposites of these words (wrong helpful anything hang up private thoughtful no one).
- 2- A *partner* or *colleague* in business may be called (a boss an employee a consultant an associate).
- 3- To be *worn* out is to be (fired rested old warm).
- 4-The *House of Representatives is in session*, then they (on vacation campaigning in their offices meeting).
- 5-*On foot* means (running walking riding with shoes on).
- 6-*What does it matter*? means (it's very important I'm too old it's not important).
- 7-To *give it a try*, means (to give it up lose it to attempt it to forget it).

- 8-Which of the following words is not an acceptable adjectival form of the verb vary? (variable varying various varied variful).
- 9-The opposite of *continuos* is (continued intermittent perfect crowded).
- 10-A *multivitamin* has (only vitamin C, many vitamins no vitamins an appetizer).

### Vocabulary Review 8:

- 1- When you *fill a prescription*, you (pour water into it take a pill with water have a pharmacist prepare it).
- 2- An *assistant* is (an aide a hindrance a competitor a pharmacist).
- 3- To have a look means to (stare check put on your glasses).
- 4- A person who *overdoes* it will probably be (rested refreshed weary relaxed).
- 5- What is the noun form of the words (alter admire decide occur mark).
- 6- What is the adjective form of the words(allergy behave substance recognize race).
- 7- What is the noun form of the words (transport constancy present reveal identify).
- 8- To *ignore* it to (overlook look over pay attention to talk to).

9- The opposite of <i>value</i> is (worthy – worthless – valued – valiant)
10- A <i>lease</i> is (a room – an apartment – a tenant – a rental agreement).
Vocabulary Review 9:
1-If someone <i>goes somewhere for good</i> , he or she goes there (on a vacation, for health reasons, for a change, permanently).
2-On account of has the same meaning as (instead of, in front of, in need of, because).
3-Once in a while means (sometimes, for a long time, seldom, forever).
4- <i>Pretty good</i> means (very good, rather good, awfully good, not at all good).
5-The opposite of <i>tough</i> is (shiny, lean, smooth, easy).
6-What is the plural form of <i>sheep</i> ?

7-Barely means (without covering – simply – only just).

\_\_\_\_

8-O*verhear* means (when one means to hear – when someone does not mean to hear).

9-Overcome means (come over - defeat).

10- To drop someone a line is to (telephone, write, visit).

Vocabulary Review 10:

1- Someone who is hard of hearing is (difficult to hear, difficult to locate, partially deaf).

2-If someone gives himself up; he (faints, falls down, gains courage, surrender).

3-A person who can not hear is (blind, dumb, sick, deaf).

4\_What is the corresponding adjective form of the noun silence?

5\_What is the corresponding adjective form of the noun *truth*?

6-In vain, means (rapidly, often, without effective result, continuously).

7-We are old friends of (them, their, theirs).

8-How long (do you study, have you studied) English?

9-When you telephoned I (slept, I was sleeping).

10-The merchandise was supposed (to deliver \_ to be delivered) yesterday.

#### Vocabulary Review 11:

- 1-The opposite of *sharp* is (broad, dull, frequent).
- 2-Someone who is *punctual*, always (arrives late, arrives on time, comes empty-handed, needs money).
- 3-Joan speaks English (good \_ well).
- 4-To call up someone is to (admire, telephone, visit, study).
- 5\_To *call off* something is to (tear, need, cancel, postpone),
- 6-What is the superlative form of the adjective *interesting*?
- 7-You would probably put your dirty dishes in the (disposal stove dishwasher refrigerator).
- 8-If something is private, it is (physically comfortable ugly luxurious secluded).
- 9- What is the adjective form of the words(space earth planet disguise recognize).
- 10-What is the noun form of the words (initiate condemn observe extend adapt).

#### Vocabulary Review 12:

- 1- What are the opposite meaning of the following words:(impress end fortunate appointment credible).
- 2- An anniversary celebration often commemorates a (birthday a wedding death graduation).
- 3- Which of the following is considered seafood?(veal lobster steak duck).
- 4- Pastries are usually (sour salty spicy sweet).
- 5- The opposite of thrifty is (sparing wasteful forty solid).
- 6- A common synonym of the word trash is (treasure merchandize junk).
- 7- To put something off is to (welcome it to postpone it want it reject it).
- 9- What is the adjective form of the words(vegetate fortune sleep bear define).
- 10-What is the verb form of the words (large wide general regular similar).

# Choose the correct word in these sentences:

- 1-During the (journey-travel) I shall write to you on ship's (stationery stationary).
- 2-Who (discovered invented) the camera?
- 3-some people never (leave live) home, others (travel–trip) all the time.
- 4-The inspector (checked controlled) my ticket.
- 5-Nothing can grow in this poor (soil ground).
- 6-Beethoven was a (big great) composer.
- 7-The teacher (agreed accepted) the boy's apology and let him (off down).
- 8-I never (amuse enjoy) (practicing practising) the piano.
- 9-We were all (amused enjoyed) by the jokes he told us.
- 10-He (advised adviced) me to get a license.
- 11-He works (hard hardly).
- 12-The waitress (fell dropped) her tray.
- 13-A baby's (skin leather) is very soft.
- 14-It is pleasant to have a meal by (candle wax)light).
- 16-You had better (bring fetch) some food with you, in case you get hungry.
- 17-This is not my own bicycle; I have (lent –borrowed) it from a friend.
- 18-He had lived (abroad in the abroad) for a good many years.
- 19-I am going to (lie lay) down for half an hour.
- 20-His uncle sells second-hand (furniture furnitures).

Part Three

Exercise

Write the letter of the choice that is most nearly the *same* in meaning as the word on the left.

- a fiction
   falsehood (B) fact (C) books (D) words
   a theory
   research (B) thought (C) question (D) explanation
   to overwhelm
   climb (B) overpower (C) finish (D) rebuild
- 4. security
- (A) courage (B) danger (C) protection (D) happiness
- 5. to determine
- (A) go around (B) find out (C) delay (D) work

6. an emotion
(A) movement (B) reason (C) feeling (D) goal
7. an impression
(A) opinion (B) result (C) income (D) example
Q to investigate
8. to investigate
(A) examine (B) hire (C) accuse (D) admire
9. to convince
(A) find guilty (B) annoy (C)join (D) persuade
10. to preserve
(A) protect (B) serve (C) get ready (D) destroy
11. dramatic
11. dramatic
(A) noisy (B) hidden (C) very noticeable (D) very famous
12. economical
(A) funny (B) thrifty (C) wasteful (D) simple

- 13. a burden
- (A) sound (B) package (C) detail (D) hardship

Write the letter of the choice that is most nearly the *opposite* in meaning to the word on the left.

- 14. thorough
- (A) blocked (B) gentle (C) famous (D) careless
- 15. to bewilder
- (A) confuse (B) make clear to (C) curse (D) bless
- 16. legible
- (A) not logical (B) slow (C) unclear (D) brief
- 17. to comprehend
- (A) misunderstand (B) go alone (C) be alike (D) fail
- 18. frank
- (A) dishonest (B) unknown (C) not reliable (D) unfriendly
- 19. earnest

(A) likable (B) insincere (C) unable to earn (D) messy
20. to dispose of
(A) keep (B) throw away (C) lose (D) find
24 to restore
21. to restore
(A) remember (B) destroy (C) shop (D) awaken
22 avident
22. evident
(A) rare (B) hidden (C) wrong (D) everywhere
23. extravagant
(A) indoors (B) spending too much
(C) thrifty (D) friendly
24. inferior
(A) outer (B) courageous (C) possible (D) better
25. to deceive
(A) build (B) tell the truth to (C) cheat (D) go up

Write the letter of the choice that is most nearly the *same* in meaning as the word on the left.

1. unanimous

(A) in full agreement (B) not together
(C) unhappy (D) pleased
2. to possess
(A) be lawful (B) lose (C) have (D) disobey
3. to exhaust
(A) leave (B) use up (C) put out (D) do
4. a procedure
(A) method (B) protection (C) example (D) reward
5. to assume
(A) collect (B) deny (C) attend (D) suppose
6. reliable
(A) well-known (B) related (C) trustworthy (D) trusting
( ) ( )

7. the stress
(A) location (B) tension (C) rule (D) time
8. to deprive of
(A) suggest to (B) believe
(C) disapprove of (D) take away from
9. the vicinity
(A) sight (B) neighborhood (C) energy (D) possibility
10. an objection to
(A) goal (B) thing (C) reason against (D) reason
11. a resource
(A) supply (B) reason (C) goal (D) method
12. to hesitate
(A) wonder (B) cause (C) delay (D) break
13. an objective
(A) reason against (B) purpose (C) puzzle (D) supply

Write the letter of the choice that is most nearly the *opposite* in meaning to the word on the left.

14.a conflict
(A) agreement (B) argument (C) gift (D) idea
15.to originate
(A) end (B) begin (C) remember (D) forget
16. external
(A) outer (B) inner (C) upper (D) lower
17.to penalize
(A) admire (B) free (C) reward (D) entertain
18.to vary
(A) keep the same (B) warm (C) change (D) attack
19. a remedy
(A) need (B) cure (C) extra (D) poison

20.sufficient

(A) comfortable (B) organized
(C) not enough (D) unimportant
21. current
(A) electrical B) by hand
(C) not attractive (D) out-of-date
22. incredible
(A) amazing (B) believable (C) not natural (D) asleep
23.to maintain
(A) stop (B) believe (C) doubt (D) ignore
24.maximum
(A) biggest (B) most (C) least (D) hardest
25.to protest
(A) broadcast (B) hide (C) notice (D) approve of

Write the letter of the choice that is most nearly the *same* in meaning as the word on the left.

1. to exaggerate
(A) leave (B) overstate (C) worsen (D) ignore
2. to aggravate
(A) get together (B) worsen (C) win (D) expect
3. to demonstrate
(A) sell (B) give (C) harm (D) show
4. to analyze
(A) study (B) use (C) show (D) entertain
5. a category
(A) kindness (B) horror (C) type (D) assortment
6. distinct
(A) clear (B) far (C) helpful (D) loud
7. to represent
(A) give (B) expect (C) answer (D) be a symbol for

8. a frustration
(A) wish (B) disappointment (C) decrease (D) charity
9. to coincide
(A) pay (B) overstate
(C) get in the way (D) happen together
10. to anticipate
(A) battle (B) worsen (C) expect (D) free
11. the frequency
(A) power (B) visit (C) victory (D) oftenest
12. to utilize
(A) study (B) overstate
(C) make use of (D) be a symbol for
13. a triumph
(A) effort (B) success (C) battle (D) loss

Write the letter of the choice that is most nearly the *opposite* in meaning to the word on the left.

14. miserable
(A) able (B) comfortable (C) expensive (D) small
15. abundant
(A) found (B) rare (C) faraway (D) unimportant
16. to cease
(A) lose (B) leave (C) continue (D) find
17. humane
(A) dead (B) wild (C) cruel (D) alive
18. reluctant
(A) willing (B) angry (C) active (D) not active
19. considerable
(A) unkind (B) comfortable (C) small (D) accidental
20. unstable
(A) steady (B) outdoors (C) cruel (D) pleasant

21. critical
(A) rare (B) small (C) common (D) approving
22. deliberate
(A) loud (B) accidental (C) hidden (D) late
23. obnoxious
(A) pleasant (B) healthy (C) strong (D) pleased
24. intentional
(A) outward (B) accidental (C) unlikely (D) unclear
25. to linger
(A) yell (B) stay (C) remain quiet (D) rush away
Write the letter of the choice that is most nearly the same in
meaning as the word on the left.
1. to inhabit
(A) enter (B) live in (C) get used to (D) understand
2. to fulfill

(A) fill up (B) correct (C) carry out (D) carry
3. to influence
(A) avoid (B) force (C) please (D) affect
4. to transfer
(A) avoid (B) move (C) keep (D) answer
5. to occur
(A) delay (B) surprise (C) happen (D) happen at the same time
6. to revise
(A) give advice (B) go back (C) change (D) awaken
7. aversion
(A) rhyme (B) dislike (C) reason (D) form
8. to discipline
(A) train (B) harm (C) remove (D) affect
9. furthermore
(A) instead of (B) also (C) because (D) but

10. to resort to
(A) vacation at (B) sort
(C) wonder about (D) make use of
11. an attitude
(A) outlook (B) height (C) quarrel (D) rule
12. to indicate
(A) win (B) expect (C) look for (D) point of
13. to respond to
(A) know (B) answer (C) believe (D) desire
Write the letter of the choice that is most nearly the opposite
in meaning to the word on the left.
14. apparent
(A) hidden (B) above (C) under (D) unnatural
15. neutral

(A) relaxed (B) taking sides (C) old (D) not enough
16. brutal
(A) loyal (B)kind (C) unclear (D) healthy
17. customary
(A) hidden (B) unfriendly (C) well-known (D) unusual
18. awkward
(A) graceful (B) outward (C) noisy (D) kind
19. a contrast
(A) being together (B) similarity
(C) disagreement (D) favorite
20. to vanish
(A) appear (B) disappear (C) build (D) destroy
21. a dispute
(A) disappointment (B) friend (C) hope (D) agreement

22. excessive

(A) leftover (B) indoors (C) not enough (D) late
23. to betray
(A) leave (B) give (C) get stronger (D) be loyal
24. accustomed to
(A) attracted to (B) unaware of
(C) aware of (D) not in the habit of
25. fragile
(A) tough (B) correct (C) unwrapped (D) graceful
Correct the bald words
1. In my <i>opinionated</i> , technology is moving too quickly.
2. As far as I am <i>concerning,</i> happiness is more important than
money.
3. Scientists are <i>convincingly</i> that human degradation of the
environment is causing thousands of species to become extinct.

- 4. The government are *regardless* the Third World debt as a major barrier to global economic development.
- 5. Hundreds of people called the television station to register their **disapprove** of the presenter's behaviour.
- 6. She *maintenance* that most young people would rather work than go to school.
- 7. Do you *reckoning* that there will be an election in the next two years?
- 8. We strongly *suspicion* that the proposal to develop the computer facilities will not go ahead.
- 9. I doubtful that the new government will keep all its promises.
- 10. Do you *disapproval* of smoking?
- 11. I take strong *except* to people coming late or cancelling appointments at short notice.

- 12. A lot of people are *fanatic* about sport in general and football in particular.
- 13. British health inspectors are *obsession* about cleanliness in restaurant kitchens.
- 14. After years of struggle, the *moderations* have gained control of the party.
- 15. He has very *conservatism* views and disapproves of change.
- 16. The government are *commitment* to the struggle to end institutional racism in the police force.
- 17. She was *dedication* to her family and would do anything to protect them.
- 18. They come from a strongly *tradition* family who still believe in arranged marriages.