

系所別： 化學工程與材料工程學系 科目： 英文

答案請寫在答案本第一頁。作答時請將答案本橫置，大題及題號標明清楚如下：

Section I		Section II			Section III				
1.	6.	1.	6.	11.	1.	6.	11.	16.	21.
2.	7.	2.	7.	12.	2.	7.	12.	17.	22.
3.	8.	3.	8.	13.	3.	8.	13.	18.	23.
4.	9.	4.	9.	14.	4.	9.	14.	19.	24.
5.	10.	5.	10.	15.	5.	10.	15.	20.	25.

Section I. Structure and written expression: choose the one word or phrase that best completes the sentence. 20%

- Effective teachers \_\_\_\_\_ and understand the needs of their students.  
(A) subjects are thoroughly known (B) know their subjects thoroughly  
(C) thoroughly know their subjects are (D) whose subjects are thoroughly known
- Milk is pasteurized by raising its temperature to about 63 degrees Centigrade for thirty minutes, rapidly cooling it, and then \_\_\_\_\_ it at a temperature below 10 degrees Centigrade.  
(A) to store (B) store (C) be stored (D) storing
- \_\_\_\_\_ of the seven continents were placed in the Pacific Ocean, there would still be room left for another continent the size of Asia.  
(A) Each (B) If each (C) Were each (D) Since each
- George Washington Carver, \_\_\_\_\_, discovered three hundred different uses for peanuts.  
(A) a great agricultural chemist (B) was a great agricultural chemist  
(C) by whom a great agricultural chemist (D) a great agricultural chemist who
- Of the 300 languages that were once spoken by American Indians, an estimated \_\_\_\_\_ today.  
(A) existence 150 (B) 150 exist (C) there are 150 (D) existing are 150
- \_\_\_\_\_ half of their savings to establish what later became the Meharry Medical College in Nashville, Tennessee.  
(A) Samuel Meharry and his four brothers donated. (B) Donated by Samuel Meharry and his four brothers  
(C) After Samuel Meharry and his four brothers donated  
(D) It was donated by Samuel Meharry and his four brothers that
- Clinical experiments have shown that children generally identify with other children's strengths and abilities rather than \_\_\_\_\_.  
(A) with the weak one (B) a weakness is (C) with their weaknesses (D) theirs is a weak one
- \_\_\_\_\_ the history of the tough, strong-willed Nebraska farmer.  
(A) Not only is much of the history of Nebraska (B) Although it is much of the history of Nebraska that is  
(C) It is as much the history of Nebraska's being (D) Much of the history of Nebraska is
- People's expectations for a higher standard of living increase \_\_\_\_\_.  
(A) when conditions in their community improve (B) since conditions in their improving community  
(C) if conditions improve in their community (D) as conditions in their community improve
- Essentially, a theory is an abstract, symbolic representation of \_\_\_\_\_ reality.  
(A) what it is conceived (B) that is conceived (C) what is conceived to be (D) that is being conceived of

Section II. Structure and written expression: identify the one underlined word or phrase that must be changed in order for the sentence to be grammatically correct. 30%

- Standardized units, the determinate quantities of currency, time, surface, volume, and to weight, are vital to the functioning of human society.  
A B C D
- No other beverage comes even close to rivaling coffee as the more widely drunk refreshment in the world.  
A B C D
- The lobster comes out its hiding place at night and walks along the ocean bottom looking for food.  
A B C D
- The human nose, with some five millions of factory receptor cells, is remarkably sensitive.  
A B C D
- Most decisions about practical matters have to be made on the base of incomplete information.  
A B C D
- In addition to providing antibodies against bacteria, the immune system recognizes and destroys abnormally or foreign cells.  
A B C D
- Many people who live in New York City thinks that life in a large city offers special advantages.  
A B C D



注意：背面有試題

系所別: 化學工程與材料工程學系 科目:

英文

8. The Statue of Liberty was originally proposed in 1865 to commemoration the alliance of France with the American colonies during the American Revolution.  
A B C D
9. Reptiles are widely distributed all over the world, but are much abundant in warm regions and are virtually absent beyond the treeline in the Arctic.  
A B C D
10. Industrial buyers are responsible for supplying the goods and services that an organization required for its operations.  
A B C D
11. The most easiest process for mining gold is panning, which involves using a circular dish with a small pocket at the bottom.  
A B C D
12. Although it is any longer the big business that it was in the forties, radio continues to be a medium of essential communication, especially at the local level.  
A B C D
13. Behavior modification techniques work best with problems that manifest itself in overt actions.  
A B C D
14. Because they are generally taken simply to obtain a recognizable and relatively clear image, most nonprofessional photographs demand few equipment.  
A B C D
15. The origins of the Democratic party is often traced to the coalition formed behind Thomas Jefferson in the 1790's to resist the policies of George Washington's administration.  
A B C D

Section III. Reading: You will read five passages in this part of the test. Each one is followed by several questions about it. You are to choose the one best answer to each question. 50%

## Questions 1-5

A revolution in our understanding of the Earth is reaching its climax as evidence accumulates that the continents of today are not venerable landmasses but amalgams of other lands repeatedly broken up, juggled, rotated, scattered far and wide, then crunched together into new configurations like ice floes swept along the shore of a swift-flowing stream.

After considerable modification this became the now largely accepted concept of "plate tectonics," explaining much of what is observed regarding our dynamic planet. Some oceans, such as the Atlantic, are being split apart, their opposing coasts carried away from one another at one or two inches per year as lava wells up along the line of seafloor descends under their fringing coastlines or offshore arcs of island.

The Earth's crust, in this view, is divided into several immense plates that make up the continents and seafloors, and that all float on a hot, plastic, subterranean "mantle." What causes these plates to jostle each other, splitting apart or sliding under one another at their edges, is still a mystery to geologists: it may be friction from circulating rock in the Earth's mantle, or it may be an effect produced by gravity.

- What is the author's main purpose in the passage?  
(A) To dispel any misconceptions about the rotation of the Earth  
(B) To praise geologists for their explorations and discoveries  
(C) To compare and contrast the Atlantic and Pacific oceans  
(D) To explain the theory of plate tectonics
- The author implies that people used to believe the continents were  
(A) frozen chunks of ice (B) rotating masses of rock  
(C) hardened crusts of lava (D) immobile bodies of land
- In the first paragraph, the author mentions ice floes in order to  
(A) illustrate the concept of how continents shift  
(B) show where they are located in relation to continents  
(C) verify what the weather was like thousands of years ago  
(D) explain their movement and the speed at which they travel
- According to the passage, the Pacific Ocean is changing in which of the following ways?  
(A) It is growing warmer. (B) It is getting smaller. (C) It is being split apart. (D) It is filling up with lava.
- According to the passage, one possible cause of the movement of the tectonic plates is  
(A) wave motion (B) gravitational pull (C) the position of the Moon (D) the expansion of the oceans



Questions 6-10

The American Revolution was not a revolution in the sense of a radical or total change. It was not a sudden and violent overturning of the political and social framework, such as later occurred in France and Russia, when both were already independent nations. Significant changes were ushered in, but they were not breathtaking. What happened was accelerated evolution rather than outright revolution. During the conflict itself people went on working and praying, marrying and playing. Most of them were not seriously disturbed by the actual fighting, and many of the more isolated communities scarcely knew that a war was on.

America's War of Independence heralded the birth of three modern nations. One was Canada, which received its first large influx of English-speaking population from the thousands of loyalists who fled there from the United States. Another was Australia, which became a penal colony now that America was no longer available for prisoners and debtors. The third newcomer—the United States—based itself squarely on republican principles.

Yet even the political overturn was not so revolutionary as one might suppose. In some states, notably Connecticut and Rhode Island, the war largely ratified a colonial self-rule already existing. British officials, everywhere ousted, were replaced by a home-grown governing class, which promptly sought substitutes in the state governments for king and Parliament.

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

(A) The United States: An Isolated Community	(B) Breathtaking Events During the American Revolution
(C) Canada and the American War of Independence	(D) The American Revolution: Evolution Not Revolution
7. In the first paragraph, what does the author suggest about the French and Russian Revolutions?
 

(A) They were explosive and abrupt.	(B) They were ineffective.
(C) They involved only those people living in urban areas.	(D) They led to the release of all political prisoners.
8. In the second paragraph, the author indicates that the American colonies' struggle for self-government preceded the creation of all of the following EXCEPT
 

(A) Canada	(B) The United States	(C) Australia	(D) Great Britain
------------	-----------------------	---------------	-------------------
9. It can be inferred from the passage that the loyalists who escaped to Canada were
 

(A) Russian	(B) French	(C) British	(D) Australian
-------------	------------	-------------	----------------
10. What will the paragraph following the passage most probably discuss?
 

(A) The transport of prisoners to Australia	(B) The creation of new state governments
(C) Events leading up to the American Revolution	(D) How Canada and the United States became friends

Questions 11-15

Artificial flowers are used for scientific as well as for decorative purposes. They are made from a variety of materials, such as wax and glass, so skillfully that they can scarcely be distinguished for natural flowers. In making such models, painstaking skill and artistry are called for, as well as thorough knowledge of plant structure. The collection of glass flowers in the Botanical Museum of Harvard University is the most famous in North America and is widely known throughout the scientific world. In all, there are several thousand models in colored glass, the work of two artist-naturalists, Leopold Blaschka and his son Rudolph.

The intention was to have the collection represent at least one member of each flower family native to the United States. Although it was never completed, it contains more than seven hundred species representing 164 families of flowering plants, a group of fruits showing the effect of fungus diseases, and thousands of flower parts and magnified details. Every detail of these is accurately reproduced in color and structure. The models are kept in locked cases as they are too valuable and fragile for classroom use.

11. Which of the following is the best title for the passage?
 

(A) An Extensive Collection of Glass Flowers	(B) The Lives of Leopold and Rudolph Blaschka
(C) Flowers Native to the United States	(D) Materials Used for Artificial Flowers
12. Which of the following statements about Leopold and Rudolph Blaschka is true?
 

(A) They were brothers.	(B) They were artists.	(C) They were florists.	(D) They were farmers.
-------------------------	------------------------	-------------------------	------------------------
13. It can be inferred from the passage that the goal of Leopold and Rudolph Blaschka was to
 

(A) create a botanical garden where only exotic flowers grew	(B) do a thorough study of plant structure
(C) make a copy of one member of each United States flower family	(D) show that glass flowers are more realistic than wax flowers
14. Which of the following is NOT represented in the display at the Botanical Museum of Harvard University?
 

(A) 164 families of flowering plants	(B) Magnified details of flower parts
(C) Several species of native birds	(D) Diseased fruit
15. Which of the following statements is true of the flowers at Harvard University?
 

(A) They form a completed collection.	(B) They have a marvelous fragrance.
(C) They are loaned to schools for classroom use.	(D) They are authentic representations.



注意：背面有試題

Questions 16-20

During the early years of this century, wheat was seen as the very lifeblood of Western Canada. When the crops were good, the economy was good; when the crops failed, there was depression. People on city streets watched the yields and the price of wheat with almost as much feeling as if they were growers. The marketing of wheat became an increasingly favorite topic of conversation.

War set the stage for the most dramatic events in marketing the western crop. For years, farmers mistrusted speculative grain selling as carried on through the Winnipeg Grain Exchange. Wheat prices were generally low in the autumn, but farmers could not wait for markets to improve. It had happened too often that they sold their wheat soon after harvest when farm debts were coming due, only to see prices rising and speculators getting rich. On various occasions, producer groups asked for firmer controls, but governments had no wish to become involved, at least not until wartime wheat prices threatened to run wild.

Anxious to *check* inflation and rising living costs, the federal government appointed a board of grain supervisors to handle deliveries from the crops of 1917 and 1918. Grain Exchange trading was suspended, and farmers sold at prices fixed by the board. To handle the crop of 1919, the government appointed the first Canadian Wheat Board, with full authority to buy, sell, and set prices.

16. The author uses the term "lifeblood" to indicate that wheat was
  - (A) difficult to produce in large quantities
  - (B) susceptible to many parasites
  - (C) essential to the health of the country
  - (D) expensive to gather and transport
17. According to the passage, most farmers' debts had to be paid
  - (A) when the autumn harvest had just been completed
  - (B) because wheat prices were high
  - (C) as soon as the Winnipeg Grain Exchange demanded payment
  - (D) when crop failure caused depression
18. According to the passage, wheat prices became unmanageable because of conditions caused by
  - (A) farmers
  - (B) supervisors
  - (C) weather
  - (D) war
19. In line 12, the italic bold-faced word "check" could best be replaced by which of the following?
  - (A) control
  - (B) investigate
  - (C) finance
  - (D) reinforce
20. According to the passage, a preliminary step in the creation of the Canadian Wheat Board was the appointment of
  - (A) the Winnipeg Grain Exchange
  - (B) a board of supervisors
  - (C) several producer groups
  - (D) a new government

Questions 21-25

George Washington Carver showed that plant life was more than just food for animals and humans. Carver's first *step* was to analyze plant parts to find out what they were made of. He then combined these simpler isolated substances with other substances to create new products.

The branch of chemistry that studies and finds ways to use raw materials from farm products to make industrial products is called chemurgy. Carver was one of the first and greatest chemurgists of all time. Today the science of chemurgy is better known as the science of synthetics. Each day people depend on and use synthetic materials made from raw materials. All his life Carver battled against the disposal of waste materials, and warned of the growing need to develop substitutes for the natural substances being used up by humans.

Carver never cared about getting credit for the new products he created. He never tried to patent his discoveries or get wealthy from them. He turned down many offers to leave Tuskegee Institute to become a rich scientist in private industry. Thomas Edison, inventor of the electric light, offered him a laboratory in Detroit to carry out food research. When the United States government made him a collaborator in the Mycology and Plant Disease Survey of the Department of Agriculture, he accepted the position with the understanding that he wouldn't have to leave Tuskegee. An authority on plant diseases—especially of the fungus variety—Carver sent hundreds of specimens to the United States Department of Agriculture. At the peak of his career, Carver's fame and influence were known on every continent.

21. With what topic is the passage mainly concerned?
  - (A) The work and career of George Washington Carver
  - (B) The research conducted at Tuskegee Institute
  - (C) The progress of the science of synthetics
  - (D) The use of plants as a source of nutrition
22. According to the passage, chemurgy can be defined as the
  - (A) combination of chemistry and metallurgy
  - (B) research on chemistry of the soil
  - (C) study of the relationship between sunlight and energy
  - (D) development of industrial products from farm products
23. Why does the author mention Thomas Edison's offer to Carver?
  - (A) To illustrate one of Carver's many opportunities
  - (B) To portray the wealth of one of Carver's competitors
  - (C) To contrast Edison's contribution with that of Carver
  - (D) To describe Carver's dependence on industrial support
24. Which of the following is NOT discussed in the passage as work done by Carver?
  - (A) Research on electricity
  - (B) Analysis of plant parts
  - (C) Invention of new products
  - (D) Research on plant diseases
25. One of Carver's main concerns is most similar to which of the following present-day causes?
  - (A) Preventive medicine
  - (B) Recycling of used materials
  - (C) Preservation of old buildings
  - (D) Prevention of cruelty to animals

