

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

**Part I: Questions 1 to 30 (total 30%)**

For each question, select the best answer from among the choices given to fill in the blank. (1% for each question)

1. We could not come \_\_\_\_\_ with any ideas for events at the next school festival, so I had to ask the teacher for help.  
(A) up                      (B) in                      (C) on                      (D) off
2. Through her job at a large international company, Mary came into contact \_\_\_\_\_ a lot of people from many different countries.  
(A) to                      (B) with                      (C) of                      (D) by
3. The committee turned \_\_\_\_\_ my suggestion for moving to a larger office because they said it would be too expensive.  
(A) up                      (B) out                      (C) down                      (D) off
4. The ocean always reminds Bob \_\_\_\_\_ his childhood, when he played on the beach nearly every day.  
(A) from                      (B) of                      (C) through                      (D) upon
5. My friends and I were discussing \_\_\_\_\_ it would be better to go on a tour or to travel around the city by ourselves when we visit New York on vacation.  
(A) through                      (B) while                      (C) whether                      (D) unless
6. Either Henry \_\_\_\_\_ his brother will be able to drive us to the airport.  
(A) nor                      (B) or                      (C) but                      (D) and
7. The night before the graduation ceremony, Jane's excitement was \_\_\_\_\_ that she could not get to sleep.  
(A) such                      (B) if                      (C) unless                      (D) since
8. Tainan's average temperature for February is higher than \_\_\_\_\_ of Taipei.  
(A) this                      (B) that                      (C) those                      (D) which
9. Steve's new job involves a lot of traveling. He has to go abroad as often \_\_\_\_\_ three times a month.  
(A) as                      (B) than                      (C) if                      (D) to
10. The professor was surprised to find that his students' reports were \_\_\_\_\_ of spelling mistakes.  
(A) afraid                      (B) tired                      (C) full                      (D) proud

11. It was \_\_\_\_\_ that John was too sick to work, so his boss let him go home early.  
(A) fortunate (B) extreme (C) apparent (D) informal
12. Children should study, but it is important for their health that they also take part in activities, such as sports.  
(A) physical (B) thoughtful (C) financial (D) miniature
13. The scientists said that the dinosaur bones they had discovered were \_\_\_\_\_. They said the bones seemed to belong to a previously unknown kind of dinosaur.  
(A) vacant (B) costly (C) harmful (D) unique
14. The last problem on yesterday's math homework was so difficult that I asked my father to it for me.  
(A) remember (B) seek (C) return (D) solve
15. Even though Fang is very busy in Taipei, she tries to \_\_\_\_\_ time every month to phone her parents in Hualien.  
(A) start (B) keep (C) move (D) make
16. Tom decided to send a small box of toys to his nephew yesterday. He \_\_\_\_\_ the package with some tape and took it to the post office.  
(A) praised (B) greeted (C) sealed (D) roasted
17. Sophia always wanted to be a famous actress. She worked hard and finally \_\_\_\_\_ her goal after she appeared in a Hollywood movie.  
(A) limited (B) postponed (C) achieved (D) composed
18. The noise in the street was so loud that we could \_\_\_\_\_ hear each other, even when we shouted.  
(A) hardly (B) nearly (C) carefully (D) actually
19. \_\_\_\_\_, Peter's mother picks him up from school. However, because she was busy today, his father did it.  
(A) Gradually (B) Simply (C) Luckily (D) Usually
20. Sooner or \_\_\_\_\_ we will have to buy a new car because ours is getting old.  
(A) faster (B) slower (C) quicker (D) later
21. Joyce had only a few hours to write her report, but \_\_\_\_\_ she managed to get it finished.  
(A) instead (B) somehow (C) moreover (D) either
22. Class! I need your \_\_\_\_\_, please. I have some important information for you.  
(A) attention (B) pattern (C) difference (D) freedom

23. The \_\_\_\_\_ to this math problem is on the next page, but do not look at it until you have tried to find the answer for yourself.  
 (A) edition (B) relation (C) solution (D) objection
24. Penny had always wanted to go to Germany, so when she was given the \_\_\_\_\_ to study there, she was very happy.  
 (A) opportunity (B) response (C) approach (D) discovery
25. Professor Johnson enjoys teaching but finds correcting his students' papers a heavy \_\_\_\_\_. It takes many hours each week.  
 (A) mixture (B) burden (C) structure (D) legend
26. After David graduates from high school, he wants to go to college in California and American history.  
 (A) depend on (B) reach for (C) pass by (D) major in
27. When Jack got home, he found that a thief had \_\_\_\_\_ his apartment. The thief had taken his computer and all his DVDs.  
 (A) broken into (B) switched off (C) graduated from (D) stood by
28. Please \_\_\_\_\_ eating and drinking in the library because it will damage the books.  
 (A) refer to (B) refrain from (C) call off (D) keep up
29. The rules of the English speech contest say that participants should speak for \_\_\_\_\_ than three minutes. Anyone who talks longer will lose points.  
 (A) many more (B) so much (C) not much (D) no more
30. The train \_\_\_\_\_ Paris from London was delayed for over an hour because of the heavy snow.  
 (A) bound for (B) made for (C) owing to (D) due to

### Part II: Questions 31 to 45 (total 30%)

For each question, arrange the order of (A), (B), (C), (D) and (E) to find the best combination of all five parts to fill in the blank. (2% for each question)

#### Example:

My brother and \_\_\_\_\_.

- (A) baseball (B) to (C) I (D) play (E) like

Answer: C-E-B-D-A

The answer forms the sentence, "My brother and I like to play baseball." This is the best combination because

it is the only combination that uses all five parts to form a complete, sensible sentence.

31. Grace has decided \_\_\_\_\_ a while because she wants to lose weight.  
(A) up (B) give (C) to (D) eating (E) desserts for
32. Debbie cares about her health, and she buys natural ingredients at a health-food store. She wants her food \_\_\_\_\_.  
(A) of (B) be (C) to (D) chemicals (E) free
33. When Kate went to the clinic for the first time, she \_\_\_\_\_. After she was done writing, she gave them to the nurse and waited to see the doctor.  
(A) out (B) fill (C) was (D) forms to (E) given
34. \_\_\_\_\_ our high school is the best school in this area. It has good academic programs, and the sports teams are usually very successful.  
(A) there (B) doubt (C) is (D) little (E) that
35. Emma was sitting at the back of the hall and could not hear the speaker because he was not using a microphone. She \_\_\_\_\_.  
(A) he (B) what (C) no idea (D) had (E) was saying
36. When Kathy was an exchange student in Portugal, she found it very \_\_\_\_\_ because she could not speak the language well.  
(A) make (B) to (C) understood (D) herself (E) difficult
37. Heather's favorite subject in school is English. She loves writing so much that \_\_\_\_\_ an author.  
(A) to be (B) thinks (C) grow up (D) her teacher (E) she will
38. \_\_\_\_\_, Arthur Smith's latest novel is read all over the world.  
(A) into (B) about (C) 20 (D) translated (E) languages
39. When Lynn came home from work on Friday, \_\_\_\_\_ the lights in the living room were on. But then she remembered that her brother was visiting for a few days.  
(A) that (B) she (C) it (D) strange (E) thought
40. When Sandy quit the company, the manager asked Jim to \_\_\_\_\_ responsibilities while they looked for someone else.  
(A) over (B) her (C) of (D) all (E) take
41. George was surprised to find that there were already \_\_\_\_\_ up when he went to buy tickets at 6 a.m.  
(A) number (B) of (C) lining (D) a (E) people

42. The travel agent told Mike that he should reserve his plane ticket soon because there were almost no seats left. She said if Mike waited any longer, he \_\_\_\_\_ a seat.  
(A) be (B) could not (C) sure (D) of (E) getting
43. Mike was worried when he got to the airport because \_\_\_\_\_ his plane ticket. Luckily, he found it in the bottom of his backpack.  
(A) he (B) seemed (C) to (D) lost (E) have
44. After Mike and other passengers got on the airplane, there was a small problem with the engine. As a result, \_\_\_\_\_ while the engine was checked. Then, the airplane was finally ready to leave.  
(A) made (B) everyone was (C) 30 minutes (D) to (E) wait for.
45. Mike got back from his trip to Japan last week. The cost of \_\_\_\_\_. It was more expensive than he had expected, but he is still glad he went.  
(A) to (B) about \$90,000 (C) the (D) amounted (E) trip

**Part III: Questions 46 to 65 (total 40%)**

The passages below are followed by questions based on their content. Answer the questions on the basis of what is stated or implied in the passages. (2% for each question)

**Questions 46-49 are based on the following passage:**

When scientist record earthquakes, they usually use machines called seismometers. These machines are extremely sensitive to movement and can record earthquakes that are happening hundreds of miles away. Unfortunately, they are very expensive. As a result, there are relatively few of them, and in many parts of the world they cannot be found at all. Now, a team of researchers has come up with a new idea for recording earthquakes. Their idea would use technology that is already common in many computers.

Jesse Lawrence, a professor at Stanford University in California, is leading a project called the Quake-Catcher Network. This is a plan to establish a worldwide network of computers connected to the Quake-Catcher central computer. The network makes use of the simple devices called accelerometers that are already installed in many laptop computers. When a laptop is dropped, the accelerometer reacts to the shock by stopping the hard drive. It does this so that the moving parts inside will not break. The Quake-Catcher Network provides software to laptops so that they can send a message to the central computer whenever the accelerometer reacts to a movement. A similar accelerometer can be attached to desktop computers, too, allowing them also to be included in the network.

The key to the project, according to Lawrence, is to have as many computers as possible report a motion at the same time. If just one computer sends a message, it probably only means that someone has bumped into it accidentally. If, however, a large number of computers all send a message at the same time, it is likely that something is happening in that area. "If it is an earthquake," says Lawrence, "we could potentially send out

signals to those who need them."

Quake-Catcher will also allow researchers to compare the data on movements to the physical damage done in each area. This will help them learn more about the effects of various types of earthquakes. Although the number of computers connected worldwide at present is still small, Quake-Catcher successfully recorded an earthquake in Los Angeles in July 2008. If more computers join the network, it may one day help warn people of earthquakes in time for them to escape to a safe place.

46. One problem with seismometers is that
- (A) they can work only in certain parts of the world
  - (B) they are extremely difficult to move around
  - (C) many countries cannot afford to own them
  - (D) many researchers find them too complicated
47. The usual purpose of an accelerometer is
- (A) to increase the speed at which computers operate
  - (B) to help protect a computer when it is dropped
  - (C) to count the number of connections on a network
  - (D) to send information from one seismometer to another
48. Why is it important to have many computers connected to the Quake-Catcher Network?
- (A) It make it easier to tell whether movements are actually caused by earthquakes.
  - (B) Not all of the computers in the network are able to record sudden movements.
  - (C) Software can be sent over the network to prevent damage to the computers.
  - (D) Different types of accelerometers react to different types of earthquakes.
49. What is true about Jesse Lawrence's project?
- (A) It is helping people protect their computers from damage.
  - (B) It is helping people measure the size of the network.
  - (C) It has already saved many lives in Los Angeles.
  - (D) It has already recorded an earthquake.

**Questions 50-54 are based on the following passage:**

A "whale fall" is a term used by scientists to describe the dead body of a whale that has fallen to the ocean floor and become a source of food for other sea creatures. A whale fall was first discovered by accident in 1987 by a team of scientists who were exploring the ocean floor in a submarine. Since then, 19 more whale falls have been found and studied, leading to many important discoveries.

Research has shown that there are three different stages to a whale fall. In the first stage, creatures such as crabs and fish eat the flesh of the whale and leave only the skeleton. In the next stage, worms and other

animals eat the surface of the bones. Finally, in the last stage, a wide variety of species — including bacteria and shellfish — eat the oil inside the whale's bones. Scientists calculate that this stage can last as long as 80 years.

Scientists say we can gain many benefits from studying whale falls. One of these is the potential usefulness of new species that have been found at whale falls. A company in California, for example, is developing a soap using a chemical from one of the worms that live on whale bones. This chemical works very effectively in cold water, allowing energy to be saved. Another benefit is that we can learn about what happens to waste after it sinks to the bottom of the ocean. This may give us new ideas for dealing with organic waste in the future.

The chief benefit, however, is that whale falls allow us to learn more about the ocean. The deep parts of the ocean are very difficult places to live. They are very cold and dark, and there is little food. Surprisingly, though, as many different creatures live there as in tropical rainforests. Scientists believe that whale falls can provide important clues to how these creatures live in such a severe environment. Moreover, the deep ocean is an essential part of our planet's ecosystem. Learning more about it and the role it plays may, in fact, be essential to our own survival in the future.

**50.** What did a team of scientists discover in 1987?

- (A) A submarine that had sunk after crashing into a whale
- (B) A new species of whale that lives deep in the ocean
- (C) A whale's body that was being eaten by sea creatures
- (D) A part of the ocean where many whales live together

**51.** What part of the whale fall do bacteria feed on?

- (A) The worms that live inside a whale's body
- (B) The oil that is found inside whale bones
- (C) The shellfish that live on the surface of the whale
- (D) The fish and crabs that have been eaten by whales

**52.** What practical benefit is likely to be gained from studying whale falls?

- (A) A chemical that can be used to kill worms
- (B) A method of keeping warm in cold water
- (C) A kind of soap that will help save energy
- (D) A way to create energy using whale bones

**53.** One important thing we can learn from whale falls is

- (A) how whales can live in cold and dark parts of the ocean
- (B) how creatures can survive under difficult conditions
- (C) how human beings can learn to swim in the deep sea
- (D) how scientists can study the environments of other planets

54. Which of the following statements is true?

- (A) Studying whale falls may help us manage some kinds of waste.
- (B) Whale falls can tell us a great deal about how our planet was formed.
- (C) Scientists are using a chemical from whale falls to clean up the oceans.
- (D) Human beings have come to depend on whale falls for survival.

Questions 55-59 are based on the following passage:

As the problem of global warming gets worse, governments around the world are looking for ways to cut the amount of carbon dioxide being produced. Now, a group of 20 German companies has come up with a plan to use the Sahara Desert in North Africa to provide clean electricity to Europe. According to Gerhard Knies of the Desertec Foundation, which is running the project, "Within six hours, deserts receive more energy from the sun than humankind consumes within a year." The companies hope to use this energy to create electricity in a way that will not harm the environment.

When people think of solar energy, they usually think of solar panels, which convert sunlight directly into electricity. The Desertec plan is different. The foundation plans to build a line of solar power stations in the desert. Solar power stations work by using the strong desert sunlight to turn water into steam. This steam then turns turbines to create electricity. Solar power stations are not new, and four stations like the ones Desertec plans to build have been producing electricity in the desert in California for the last two decades. Desertec, however, plans to build many more solar power stations and send the electricity produced from the Sahara Desert to Europe through power lines.

According to Desertec, solar power stations have many good points compared with solar panels. They are able to produce electricity in much larger quantities, and they are also able to store the sun's heat, allowing electricity to be produced at night as well as during the day. Moreover, the power stations are much cheaper to build relative to the amount of electricity they produce. Desertec says that its project could provide 15 percent of Europe's electricity by 2050.

Not everybody supports the new plan. Some say that it would be better to concentrate on producing solar panels for houses in Europe. Others say that the power stations will need too much water. Desertec, however, says that water would be brought from the ocean, and that electricity would be used to remove the salt from this water. Some of this water could then be used by local farmers for growing crops. In this way, the people in the countries where the stations are built would also profit from the plan.

55. The Desertec Foundation aims to

- (A) encourage a group of 20 German companies to clean up the Sahara Desert
- (B) make use of carbon dioxide found in North Africa to produce clean energy
- (C) use the desert sun to provide energy without damaging the environment
- (D) find a way to lessen the total amount of electricity that people consume each year



56. How will Desertec's solar power stations create electricity?
- (A) By using solar panels to make electricity from sunlight
  - (B) By heating water to make steam that will turn turbines
  - (C) By sending hot water from the Sahara Desert to Europe
  - (D) By connecting Africa's power system with the one in California
57. What is one difference between solar panels and solar power stations?
- (A) Solar panels can heat larger quantities of water.
  - (B) Solar panels are able to produce much more energy.
  - (C) Solar power stations are more common in Europe.
  - (D) Solar power stations continue to work after dark.
58. According to Desertec,
- (A) the cost of solar panels is too high for many people in Europe
  - (B) the project will help local people by providing water for crops
  - (C) the power stations will require large amounts of salt to work properly
  - (D) the countries where the power stations are built will get free electricity
59. Which of the following statements about Desertec's plan is true?
- (A) The power stations will be similar to ones operating in California.
  - (B) Electricity from the power stations will be used to heat water at night.
  - (C) The power stations will provide most of Europe's electricity by 2050.
  - (D) Some people say that the power stations should be built in Europe.

**Questions 60-65 are based on the following passage:**

Apart from the Moon and occasional comets and asteroids, Venus is often our nearest neighbor. Its orbit brings it closer to Earth than any other planet — only 26 million miles away at certain times. Despite that proximity, for a long time it was generally termed "the planet of mystery." This is because the atmosphere of Venus is so dense and so cloud-laden that its surface is permanently hidden from sight.

The first attempt to learn more about Venus was to analyze its upper atmosphere using spectroscopic methods. In size and mass, Venus is almost the equal of Earth, and its gravitational field is only slightly weaker than ours, so that logically it might be expected to have the same kind of atmosphere — but this is emphatically not so. Scientists found that the main constituent of its atmosphere is carbon dioxide. Since this is a heavy gas that would be expected to sink, it was reasonable to assume that carbon dioxide made up most of the atmosphere down to ground level. Carbon dioxide acts in the manner of a greenhouse, trapping the Sun's heat, so it followed that Venus was likely to be a very torrid sort of world.

Yet opinions differed. According to one theory, the clouds contained a great deal of water. It was even claimed that the surface might be largely ocean covered, in which case the atmospheric carbon dioxide would

have fouled the water and produced seas of soda water. Another intriguing theory made Venus very similar to the Earth of over 200 million years ago. There would be marshes, luxuriant vegetation of the fern and horsetail variety, and primitive life-forms such as giant dragonflies. If so, then Venus might presumably evolve the same way Earth has done.

In 1962 the American probe Mariner 2 bypassed Venus at less than 22,000 miles and gave us our first reliable information. The surface proved to be very hot indeed; we now know that the maximum temperature is almost 500°C. The atmosphere really is almost pure carbon dioxide, and those shining clouds are rich in sulfuric acid. All ideas of a pleasant, oceanic Venus had to be abandoned. In 1975 Venera 9, a Russian automatic lander, visited Venus and sent back pictures direct from the surface. The scene — a rocky, scorched landscape — could hardly be more hostile. Subsequent probes have confirmed this impression.

Why is Venus so unlike Earth? The answer can only lie in its lesser distance from the Sun. It seems that in the early days of the solar system the Sun was less luminous than it is now, in which case Venus and Earth may have started to evolve along the same lines, but when the Sun became more powerful the whole situation changed. Earth, at 93 million miles, was just out of harm's way, but Venus, at 67 million, was not. The water in oceans vaporized, the carbonates were driven out of the rocks, and in a relatively short time on the cosmic scale, Venus was transformed from a potentially life-bearing world into the inferno of today.

60. The primary purpose of the passage is to

- (A) criticize the lack of research on a topic of mystery
- (B) speculate about life on another world
- (C) illustrate the principles of planetary research
- (D) discuss attempts to understand an astronomical enigma

61. The statement in the second paragraph, "In size and mass ... emphatically not so," functions primarily to

- (A) dismiss a plausible supposition
- (B) mock an outrageous claim
- (C) bolster an accepted opinion
- (D) summarize a particular experiment

62. The primary purpose of the third paragraph is to

- (A) provide evidence in support of a controversial theory
- (B) challenge two popular misconceptions about Venus
- (C) suggest that Venus has been romanticized throughout history
- (D) present two distinct theories about Venus

63. In order for the hypothesis near the end of the third paragraph ("There would be marshes ... giant dragonflies") to be correct, which statement could NOT be true of conditions on Venus?

- (A) The environment is generally warm and humid.
- (B) The atmosphere is pure carbon dioxide.

(C) There is enough light for photosynthesis to occur.

(D) Creatures are able to fly with ease.

64. The first sentence in the fourth paragraph ("In 1962 ... reliable information") suggests that the

(A) quality of the data surprised the scientists

(B) evidence collected earlier was relatively untrustworthy

(C) probe allowed scientists to formulate a completely new theory

(D) data confirmed an obscure and implausible theory

65. Which of the following statement is NOT implied by the passage?

(A) The temperature on the surface of Venus can be over 400°C.

(B) Carbon dioxide is the main constituent of the atmosphere of Venus.

(C) The oceans of Venus were vaporized in the short period between 1962 and 1975.

(D) At one time, the atmosphere of Venus could be like that of Earth.