Part A 單字與片語：請根據上下文選出與畫線部分文意最相近的答案（40%）

1. The test showed that the woman was at risk for Alzheimer’s disease.
   (A) safety   (B) ease   (C) danger   (D) protection

2. The World Health Organization warned the H7N9 virus was one of the most lethal that doctors and medical investigators had faced in recent years.
   (A) beneficial   (B) harmless   (C) healthful   (D) deadly

3. The Respiratory Therapy program prepares students to work in a variety of health care settings, and to care for patients with acute and chronic respiratory disease.
   (A) constant   (B) temporary   (C) occasional   (D) rare

4. Mr. Greene was admitted to our ward for progressive chest tightness.
   (A) dismissed   (B) accepted   (C) refused   (D) neglected

5. Dr. Roland Griffiths, a professor at the Johns Hopkins School of Medicine, believes that regular caffeine use causes physical dependence.
   (A) difference   (B) departure   (C) admonishment   (D) addiction

6. What are the pros and cons of DNA testing?
   (A) right and wrong   (B) advantages and disadvantages   (C) good and evil   (D) generosity and selfishness

7. The skin on her hand looks bright red because it has an infection.
   (A) welfare   (B) contagion   (C) well-being   (D) fitness

8. The hospital reports a high incidence of car accidents on Saturday nights.
   (A) accident   (B) action   (C) event   (D) occurrence

9. Mr. Green is a well-known advocate of improving public transportation.
   (A) supporter   (B) opponent   (C) enemy   (D) antagonist

10. Nanotechnology may make diagnosis of cancer possible earlier.
    (A) instruction   (B) prescription   (C) examination   (D) translation

11. Resistance to antibiotic drugs is a problem in the treatment of severe influenza.
    (A) assistance   (B) intolerance   (C) function   (D) ineffectiveness

12. Our immune systems are not accustomed to these viruses of zoonotic diseases.
    (A) adapted   (B) disagreed   (C) neglected   (D) unfitted

13. Genetic engineering of crops and animals through the manipulation of DNA is producing a revolution in food production.
    (A) revolt   (B) submission   (C) obedience   (D) conformity

14. Cancer is one of the biggest killers in the world today, and finding ways to prevent and cure it is a medical priority.
    (A) insignificance   (B) preference   (C) inferiority   (D) trifle

15. Sometimes a patient with schizophrenia will take on a new identity. This means he/she
    (A) doesn’t talk to anyone he/she knows
    (B) lies about who he/she is
    (C) consciously reject himself/herself
    (D) acts like he/she is someone else

16. Chlamydia is treatable, but if left to its own devices, it can lead to sterility.
    (A) showing no signs or symptoms
(B) neglected and not given proper treatment
(C) treated with over-the-counter medicines
(D) depending on one’s own immune system

17. If our body doesn’t get rid of waste products, they will **accumulate** inside our cells. In turn, we can become tired or even sick, and can’t function as well.
   (A) move from one place to another
   (B) remove
   (C) gradually increase in quantity or size
   (D) gradually become weaker until something disappears

18. People with a fast **metabolism** tend to be thin, even if they eat a great deal.
   (A) an intense type of aerobic exercise
   (B) the chemical process that changes food into energy
   (C) the rate at which a person breathes
   (D) a system of protection against disease

19. **Clinical rounds** at the psychiatric ward this morning were very intriguing.
   (A) a briefing with medical personnel at each patient’s bedside
   (B) an introductory tour for new nurses to all the wards
   (C) an invitation to observe a procedure
   (D) a consultation for the specific symptom

20. Exercise is **crucial** to maintaining a healthy heart and lungs.
   (A) vital   (B) indecisive   (C) logical   (D) serious

Part B 請選出最適合的答案使成為合乎語法結構的句子 (20%)

21. ____ small specimen of the embryonic fluid is removed from a fetus, it will be possible to determine whether the baby will be born with birth defects.
    (A) A   (B) That a   (C) If a   (D) When it is a

22. ____ is necessary for the development of strong bones and teeth.
    (A) It is calcium   (B) That calcium   (C) Calcium   (D) Although calcium

23. One of the most effective vegetable protein substitutes is the soybean ____ used to manufacture imitation meat products.
    (A) which can be   (B) it can be   (C) who can be   (D) can be

24. ____ war correspondent, Hemingway used his experiences for some of his most powerful novels.
    (A) But a   (B) It is a   (C) While   (D) A

25. The FDA was set up in 1940 ____ that maintain standards for the sale of food and drugs.
    (A) to enforce the laws   (B) to enforcing laws   (C) enforcing laws   (D) enforced the laws

26. In simple animals, ____ reflex movement or involuntary response to stimuli.
    (A) behavior mostly   (B) most is behavior   (C) most behavior is   (D) the most behavior

27. My health ____ lately from my busy schedule, so I am trying to make health and wellness a bigger priority these days.
    (A) suffers   (B) is suffering   (C) has been suffering   (D) has suffered

28. Tears contain an antiseptic that helps protect our eyes ____ infection.
    (A) from bacterial   (B) in bacterial   (C) bacterial   (D) with bacterial

29. A neuron cell can not only receive messages from sense organs, but it can also ____.
30. Hormones have many jobs, from promoting bodily growth to ____ to regulating metabolism.
   (A) aid digestion   (B) aiding digestion   (C) be of aid to digestion   (D) an aid of digestion

Part C 閱讀測驗 (40%)
Questions 31-34

Avian Influenza A (H7N9) Virus

Human infections with a new avian influenza A (H7N9) virus continue to be reported in China. While mild illness in human cases has been seen, most patients have had severe respiratory illness and some people have died. A(n) 31 by Chinese authorities is ongoing. Many of the people infected with H7N9 are reported to have had contact with poultry. Limited person-to-person spread of bird flu is thought to have occurred rarely in the past. Most important, however, is that this 32 not be sustained. Influenza viruses constantly change and it’s possible that this virus could become able to easily and sustainably spread between people, 33 a pandemic. CDC (Centers for Disease Control and Prevention) has issued guidance to clinicians and public health authorities in the United States, as well as provided information for people traveling to China. This is a(n) 34 situation and there is still much to learn.

31. (A) challenge   (B) rehearsal   (C) investigation   (D) quest
32. (A) transmission   (B) duplication   (C) suppression   (D) possession
33. (A) stopping   (B) terminating   (C) halting   (D) triggering
34. (A) advancing   (B) progressing   (C) maturing   (D) evolving

Questions 35-38

The CT scanner

A CT scanner is basically an X-ray machine that 35 around the patient. Instead of using photographic plates to capture the X-rays, it uses electronic sensors. These sensors 36 the X-rays into digital data, which are then sent to a computer. This computer processes the information and produces images of “slices” of the body. The CT scan has a major 37 over normal radiographs in that it allows the doctor to see soft tissue lesions. Hence, CT scans are 38 in the evaluation of cerebro-vascular accidents, or strokes, as all the damage is in the soft tissues.

35. (A) revolves   (B) neglects   (C) blocks   (D) turns
36. (A) study   (B) remain   (C) convert   (D) continue
37. (A) advantage   (B) problem   (C) loss   (D) inconvenience
38. (A) unnecessary   (B) insignificant   (C) accessory   (D) indispensable

Questions 39-44

How the Brain Develops

The Brain Before Birth

During the nine months when a child is developing inside its mother, the brain is very flexible and grows in an amazing fashion. By the end of the first month, the baby is producing half a million neurons (or nerve cells) every single minute! These are the tiny entities that will eventually allow the brain to do its work. Over
the next few weeks, these nerve cells gather in the brain. There, they begin to reach out to each other and establish synapses – points of contact with other neurons – at a rate of two million a second. By seven months, the baby’s brain has more nerve cells than it ever will again, more than it will ever be able to use, even as an adult.

**Early Childhood Brain Development**

For the first 18 months, the child’s brain is focused on learning during every waking moment. Unlike older children who seem to need threats or rewards to encourage learning, babies naturally use everything that comes through their senses to add to their understanding of the world. “They may look like they’re just sitting there staring at things,” says Mark Johnson of the Centre for Brain and Cognitive Development at Birkbeck, University of London. “But right from the start, babies are born to seek information.” The neurons that are repeatedly excited by outside information develop strong underlying connections, while those that get less excitement waste away. For example, a child who hears only English spoken all the time will become more sensitive to the sounds of English and will gradually become unresponsive to the sounds of other languages.

**Later Brain Development**

During the next few years, the first areas a child’s brain learns to master are sensory information and movement. After that, he or she starts to gain perspective on more abstract concepts, such as the relationships among objects in space and how to use language. The last area to develop is the executive brain, the aspect of thinking that helps us make social judgments, **weigh alternatives**, plan for the future and control our own behavior. This area is not fully developed until the age of 25. That may explain why some teenagers who have adult ideas, energy, and emotions sometimes get in trouble when these forces get out of control.

39. The reading is mainly about ____.
   (A) the experiments scientists do to get information about the human brain
   (B) how the human brain changes over time
   (C) why scientists are so interested in studying the human brain
   (D) how the human brain learns to handle abstract concepts

40. What is the main idea of paragraph 1?
   (A) A baby’s body can produce half a million neurons a minute.
   (B) Neurons are the building blocks of the brain.
   (C) Before birth, a baby has more nerve cells than it ever will again.
   (D) A baby’s brain develops extremely fast before it is born.

41. In paragraph 2, sentence 6, the word **those** refers to ____.
   (A) babies
   (B) stronger connections
   (C) neurons
   (D) sounds of English

42. In paragraph 3, sentence 4, the phrase **weigh alternatives** means ____.
   (A) think about the advantages of a certain plan of action
   (B) decide between two different choices
   (C) choose an unusual plan of action
   (D) make quick decisions

43. Which happens last?
   (A) The brain gets better at controlling movement.
   (B) The brain begins to plan for the future.
   (C) The brain produces millions of synapses.
Questions 45-50

Is Global Warming Real?

What’s Happening?

Earth is showing many signs of climate change. Average temperatures around the world have climbed 0.8 degrees Celsius since 1880. The speed of warming is also increasing, with the years from 1980 to 2000 being the hottest in 400 years. The ice in the Arctic region is melting rapidly, and this area may experience its first completely ice-free summer by 2040. Further south, coral reefs, which are affected by tiny changes in water temperature, suffered the greatest losses ever recorded in 1998. In some places, as much as 70 percent of the reef area died. Scientists predict that as temperatures continue to rise in the next 50 years, these sorts of events will also increase.

What’s Going to Happen?

Although no one knows for sure what the future holds, researchers expect that there will be serious problems if we don’t stop global warming. The sea level could rise between 18 cm (7 inches) and 58 cm (23 inches) by the end of the century. This would mean that large parts of Southeast Asia and other low-lying coastal lands would be covered with water. Increased temperatures could make it difficult for farmers to grow a sufficient amount of food, causing critical problems and possibly leading to starvation in some areas. Damage from heat waves, wildfires, and other extreme weather events would likely increase. This will cause financial loss as well as the loss of human lives. Many governments and individuals are using all the resources they can to try to save the environment and solve the problem of global warming.

45. The passage is mainly about ____.
   (A) how global warming got started
   (B) the disappearance of the world’s natural resources
   (C) some good ways to stop global warming
   (D) the causes and effects of global warming

46. What is the main idea of paragraph 1?
   (A) Global warming should be stopped.
   (B) Global warming is causing a variety of changes.
   (C) The speed of global warming is increasing every year.
   (D) Temperatures are going to continue to rise for the next 50 years.

47. In paragraph 1, sentence 3, the word rapidly means ____.
   (A) evenly
   (B) occasionally
   (C) quickly
   (D) noisily

48. The problems of global warming ____.
   (A) will probably be solved in less than ten years
   (B) were probably just as bad 30 years ago as they are now
49. What is the main idea of paragraph 2?
(A) Global warming may lead to serious problems.
(B) Many people are trying to stop global warming.
(C) Global warming causes extreme weather events.
(D) No one knows for sure what will happen.

50. According to the passage, which of the following is NOT a result of global warming?
(A) The sea level is rising around the world.
(B) The world’s forests are disappearing.
(C) Some farmers may have difficulty growing enough food.
(D) Extreme weather events are increasing.