

## 105 年度全國科學班試辦聯合學科資格考英文科試題卷

第一部分：選擇題，請依題號在答案卡上作答。

### 一、文意字彙 (共 15 題，每題 1 分，共 15 分)

- In order to ease the pain of stomach, I was asked to eat some food which is easy to \_\_\_\_.  
(A) digest (B) present (C) fulfill (D) evolve
- My uncle has lived overseas for nearly three decades. When he first came back to visit, he was surprised to find that the nation changed almost beyond \_\_\_\_.  
(A) criticism (B) argument (C) recognition (D) challenge
- They had tried for years in search of the cure for the disease and \_\_\_\_ succeeded with the assistance of researchers from Japan.  
(A) universally (B) generally (C) practically (D) eventually
- Henry was \_\_\_\_ about apologizing to the manager for the errors he made.  
(A) faithful (B) spiritual (C) loyal (D) earnest
- The tendency of the human body to reject foreign matter is the main \_\_\_\_ to successful tissue transplantation.  
(A) element (B) testimony (C) obstacle (D) inflation
- For three years the researchers have been \_\_\_\_ a survey on how men and women are likely to differ in their shopping decisions.  
(A) conducting (B) observing (C) processing (D) declining
- The armed \_\_\_\_ in Syria have caused the death of 300,000 people and displaced millions of Syrians.  
(A) contracts (B) conflicts (C) consultations (D) concerns
- The political struggle between two ethnic groups led to the Rwanda genocide, in which 70% of the Tutsis population was \_\_\_\_ slaughtered.  
(A) roughly (B) intensively (C) fatally (D) brutally
- These shoes are exceptionally \_\_\_\_\_. I have worn them for ten years, but there are not even signs of wear and tear.  
(A) durable (B) acceptable (C) tolerable (D) flexible
- A teacher should not be \_\_\_\_ to any student. He or she should not give special favors to any particular student.  
(A) identical (B) partial (C) intense (D) diverse
- Liza is a contented woman. She is satisfied with her life and never \_\_\_\_ things she doesn't have.  
(A) stocks (B) covets (C) overlaps (D) narrates
- It \_\_\_\_ me to learn of the news that thousands of people in 2015 drowned in the sea on their dangerous journey to seek political asylum.  
(A) brooded (B) grieved (C) justified (D) discharged
- Grandfather described the details of his war experience so \_\_\_\_ that I felt disgusted and almost threw up.  
(A) graphically (B) majestically (C) exotically (D) reluctantly
- A setback can serve only to strengthen the \_\_\_\_ of a determined soul.  
(A) criterion (B) instinct (C) prospect (D) resolve
- We could go to the Indian restaurant, or \_\_\_\_, we could try that new Italian place.  
(A) rationally (B) sparingly (C) hospitably (D) alternatively

### 二、克漏字 (共 15 題，每題 1 分，共 15 分)

#### 第 16 至 20 題為題組

A new wearable enviro-tracker called Tzoa (pronounced “zoa”) uses internal sensors to measure air quality, temperature, humidity, atmospheric pressure, ambient light and UV (sun) 16. By connecting the device to a smartphone, you can view your readings and receive recommendations. The goal is to help users seek out less polluted outdoor areas, 17 it's for a healthier run or less polluted picnic spot.

Just last year, the World Health Organization (WHO) reported that air pollution deaths have reached a new all-time high, 18 outdoor and indoor air pollution the world's largest preventable health risk. Outdoor air pollution, mostly

caused by gas-powered cars and burning coal, 19 3.7 million of the 7 million pollution deaths in 2012. Tzao measures different sizes of particulate matter (PM) in the air, ranging from pollen, dust, asbestos and mold, to smaller “respirable” particles like vehicle exhaust and woodsmoke.

Tzao is 20 in preorder mode on the company’s website. In the meantime, national recommendations include checking the Air Quality Index (AQI) before heading outdoors.

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|---------------------|-----------------|------------------|-------------------|
| 16. (A) disclosure  | (B) destruction | (C) exposure     | (D) contamination |
| 17. (A) despite     | (B) whether     | (C) though       | (D) whatever      |
| 18. (A) making      | (B) made        | (C) that made    | (D) which making  |
| 19. (A) disposed of | (B) deprived of | (C) provided for | (D) accounted for |
| 20. (A) randomly    | (B) currently   | (C) deliberately | (D) indignantly   |

### 第 21 至 25 題為題組

Social media is changing our relationship styles in several important ways. For example, it’s allowing us to connect with more people more rapidly than we might normally meet in a work-week. 21 some aspects may be positive and useful to us, we need to be aware of the downsides of social media.

One big mistake is that it’s easy to confuse digital intimacy for true intimacy. We can become so seduced by the ease of connecting with others online that we think these relationships are more intense and committed than they really are. We take the 22 of alienating the people who populate our daily lives in pursuit of intimacy with our online friends. Another downside of social media relationships is that it makes us more 23 to a sort of social media contagion effect. If someone in our online social network is angry or hostile, and takes it out on us, we’re more likely to ‘transmit’ this mood ourselves. As we become increasingly networked and 24 each other, it’s going to be more crucial to monitor our own influences and reactions.

With so much information online about how other people are living their lives, it’s easy to feel that we can’t compete, so we should not compare ourselves too often with others. 25, we need to maintain a balance between our online and offline life. It’s better to cultivate a real-life network of contacts, and not confine our world to social networking sites.

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|----------------------|---------------------|-------------------|----------------|
| 21. (A) Since        | (B) While           | (C) Once          | (D) As         |
| 22. (A) disguise     | (B) circulation     | (C) privilege     | (D) risk       |
| 23. (A) superior     | (B) subject         | (C) immune        | (D) prior      |
| 24. (A) intended for | (B) disposed of     | (C) involved with | (D) engaged in |
| 25. (A) Above all    | (B) On the contrary | (C) By and large  | (D) Better yet |

### 第 26 至 30 題為題組

Neutrinos, whose name approximately means “little neutral ones” in Italian, come in three “flavors”: electron neutrino, muon neutrino, and tau neutrino. Though they are produced in huge quantities in nuclear reactions, neutrinos 26 interact with ordinary matter. Trillions pass through your body every second, 27 almost none of those score a direct hit on any of your atoms.

According to the Standard Model, which describes the identities and interactions between subatomic particles, neutrinos have 28 mass. Early experiments found only about one-third of the expected number of electron neutrinos that 29 produced by the Sun. This was known as the “solar neutrino problem,” which led some physicists to speculate that if neutrinos had mass in violation of the Standard Model, they could change flavor. 30, the reason we weren’t seeing enough electron neutrinos is because they were oscillating into the other flavors.

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|--------------------------|---------------|--------------------|-------------|
| 26. (A) closely          | (B) barely    | (C) inevitably     | (D) only    |
| 27. (A) so               | (B) before    | (C) but            | (D) when    |
| 28. (A) great            | (B) more      | (C) such           | (D) no      |
| 29. (A) should have been | (B) should be | (C) are            | (D) will be |
| 30. (A) In contrast      | (B) Moreover  | (C) In other words | (D) However |

### 三、文意選填 (共 10 題，每題 1 分，共 10 分)

Monks and pilgrims play an important part in the practice of Buddhism. 31 are attracted to caves in remote places. Two places boast the vitality of Buddhist cave painting from about the 5th century AD. One is Ajanta, a site in

India long forgotten 32 discovered in 1817. The other is Dunhuang, one of the great oasis staging posts on the Silk Road.

At Ajanta there are about thirty architectural spaces cut into a steep 33 flanking a ravine. The paintings range from calm devotional images of the Buddha to lively and crowded scenes, often 34 the seductively full-breasted and narrow-waisted women more familiar in Indian sculpture than in painting. 35 images are from the 8th century, after which the decline of Buddhism in India causes these remote and beautiful places to become gradually 36 and then entirely forgotten.

Dunhuang, on one of the world's greatest trade routes, is an altogether busier place than Ajanta. Rather than thirty caves, Dunhuang has nearly 500 - known 37 as the Caves of the Thousand Buddhas. The murals 38 three centuries, from the 5th to the 8th AD. The images in the earlier caves hollowed from the soft rock show the influence of central Asia and even India - the regions from which Buddhism travels on its way to China - but the later paintings are fully Chinese in 39. Dunhuang, unlike Ajanta, is never lost. But one particular cave is 40 against intruders. Rediscovered in 1899, this cave is found to contain fine examples of Chinese painting on silk and the world's first known printed book.

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|----------------|-------------------|----------------|------------|----------------|
| (A) style      | (B) until         | (C) span       | (D) sealed | (E) the latest |
| (AB) featuring | (AC) collectively | (AD) abandoned | (AE) both  | (BC) cliff     |

四、閱讀測驗 (共 16 題，每題 2 分，共 32 分)

第 41 至 44 題為題組

Most people know that they are not getting as much exercise as they need, but they keep telling themselves, "Next week I am going to start getting in shape." Of course next week is really busy and they postpone it until the next and the next. The truth is, our modern life is very busy and it is difficult to find the time for us to stay fit.

This is a relatively modern problem because years ago physical fitness was a part of life. People walked to school or to work or rode their bikes often for long distances. Also, many worked the land, exercising their muscles in the sun and fresh air. The descendants of these fit laborers, however, probably work in an office, sitting at a desk all day. For lunch, they are too busy to eat a healthy meal and get a burger from McDonald's. Then after work they walk to their cars, drive home and sit in front of the TV until they go to sleep. This inactive, high-fat lifestyle has led to increasing obesity, heart disease, and occasionally a shorter life.

So, what can we do about this health crisis? For one thing, people can start riding their bikes or walking instead of driving on short trips. Thirty minutes of vigorous activity every day is all that is needed to stay fit. "Always take the stairs and never the elevator," said a Japanese trainer of Olympians when asked how to stay in shape. You could also take a short stroll around the neighborhood after work, and urge your children to engage in real sports instead of Play Station. Every little change you make to incorporate more exercise into your lifestyle will pay off in a healthier body and perhaps a longer life.

41. What is the main purpose of the passage?

- (A) To show us how people go to work.
- (B) To state the importance of exercising.
- (C) To depict the place where young people eat.
- (D) To emphasize how busy the life style of modern people is.

42. According to the passage, which of the following CANNOT help us stay fit?

- (A) Walking to work.
- (B) Taking the stairs.
- (C) Exercising thirty minutes a day.
- (D) Walking to the car and driving home.

43. According to the passage, which of the following will NOT cause obesity?

- (A) Eating fast food.
- (B) A high-fat lifestyle.
- (C) The lack of exercise.
- (D) Working the land in the sun.

44. According to the passage, which of the following is NOT true?

- (A) A Japanese trainer of Olympians exercise thirty minutes every day to stay fit.
- (B) Modern life is very busy and it is hard to find time to exercise.
- (C) It is hard to keep fit if you work in an office, sitting at a desk all day.
- (D) Years ago, physical fitness was part of people's everyday life.

**第 45 至 48 題為題組**

Facebook currently dominates the world of social networking. It already has over one billion active users. Backed by Google, which gives us the best online search engine, Google+ has a lot to offer and is even being touted by some as a better alternative. But how does this service really compare with that of Facebook? Let's start with the similarities.

The most obvious feature that both services provide is a platform for sharing content with people. Within each of them, you can share photos, videos, and links to external content on the Web. Social gaming and chat are also available on both Google+ and Facebook. Another feature they both share is the ability to categorize social contacts into groups.

Google+ and Facebook also have some key differences in their functionality. Users of Google+ can organize friends and acquaintances into circles in a way that is more natural and intuitive than Facebook's list function. Google's service has also been praised for one of its most popular features, Hangouts. These are video chat rooms that multiple friends can join once you invite them. Facebook also has video chat, but it is only one-on-one. While Google+ Hangouts have a more positive reputation, they may be overloaded with too many features. In our experience, Facebook's simpler interface proved more elegant and less prone to crashing.

Facebook has long been the target of criticism for its inability to provide adequate privacy to its users. Unlike Facebook's privacy setting, which can be tedious to find and use, those of Google+ are much more willing to share information online when they are confident it won't get into the wrong hands. Nevertheless, these problems have not kept Facebook from growing. The social media giant still holds a considerable lead over its challengers in the number of active users it has.

45. What kind of article is this passage?

- (A) A review.
- (B) A statement.
- (C) A commercial.
- (D) A warranty.

46. According to the passage, which of the following is TRUE?

- (A) Facebook's simpler interface is an obvious disadvantage.
- (B) Facebook has a better reputation for online privacy than Google+.
- (C) Both Facebook and Google+ offer games, visual chat rooms and social grouping.
- (D) Hangouts are the best feature Facebook has to offer.

47. According to the passage, what is the biggest advantage Facebook has over Google+?

- (A) More advertising.
- (B) A great number of active users.
- (C) More flexible list function.
- (D) A better online search engine.

48. What can we infer from the content?

- (A) Google+ makes more profits than Facebook does.
- (B) To maintain uniqueness, Facebook and Google+ try to abandon the functions their opponent has.
- (C) After reading the article, those Facebook long-time users will be convinced to switch to Google+.
- (D) The main reason why people use Facebook and Google+ is to share content with other people.

#### 第 49 至 52 題為題組

Every year in June, Americans celebrate the Black Music Month. During this month, differences are set aside and Americans of all backgrounds are encouraged to learn more about black musicians' heritage. They also celebrate the remarkable role they have played in American history and culture. The beginning of black music in America dates back to the time when enslaved Africans were forced to work for white farmers. The earliest African-American music began from work songs that slaves sang while doing their hard labor. Stories from abuse and mistreatment to romance and perseverance have been continuously woven into the fabric of African-American music. These songs were used to share stories, spread ideas, preserve history, and communicate with one another. For example, the song "Follow the Drinking Ground" advised slaves on how to escape from captivity.

These work and spiritual songs laid a foundation for the subsequent development of gospel, blues, and jazz. In Europe, music was considered to be a form of art intended for rich people. For blacks, on the other hand, music was part of everyday life. The blues suggested strategies for dealing with real-life problems. It can be seen as a coping mechanism for people struggling to get on with their difficult life. Gospel music, on the other hand, was mostly sounded throughout churches in religious ceremonies, and jazz made the entire country dance like crazy. No matter which style appeals to you the most, there's no doubting that African-American music will continue to influence the American music scene today with even more styles in the future.

49. Which of the following is NOT true?

- (A) Americans owe a great part of their musical legacy to the African-American community.
- (B) African-Americans tended to regard music as an outlet for their frustration with life.
- (C) The Black Music Month has received much government funding and is now vastly popular.
- (D) African-American music deals with how the blacks attempted to make sense of their life.

50. Which of the following is least likely to be a theme of African-American music?

- (A) Frequent conflicts with slave owners.
- (B) Idyllic scenery in the American countryside.
- (C) Back-breaking work in the collective farm.
- (D) Relationships among fellow laborers.

51. What is the author most likely to discuss after the second paragraph?

- (A) How the American public feel about online music.
- (B) How discrimination is discouraged in America.
- (C) How people rise against slavery in America.
- (D) How other types of music are viewed in America.

52. What can be inferred from the second paragraph?

- (A) Music plays different roles in different cultures.
- (B) Gospel music enjoyed greater popularity with the public.
- (C) Music types that came later were more successful.
- (D) Jazz music is essential in every religious ceremony.

#### 第 53 至 56 題為題組：第 53 題請配合文章中標示的(A)(B)(C)(D)(E)作答

(A) With many jobs and school courses requiring meeting deadlines, sometimes people put off doing their work. There is even a word that describes the lack of motivation to getting things done: it is called "procrastination." And though some people may mock others who procrastinate, it can cause profound distress and despair.

(B) Psychological professionals believe that procrastination can be caused either by physical problems with the brain or by mental difficulties. The physical causes of procrastination may be that the part of the brain that deals with organizing work is damaged or not working properly. The mental or psychological problems that cause procrastination can include low self-esteem, a vague feeling that things are not going to turn out right or mental depression, from which people feel sad and hopeless, making it very difficult for them to get anything done.

(C) There are also two main types of procrastinators: those who worry a lot about the work they are not getting done and those who are calm about their procrastination. The first type of people have many negative feelings about not completing their work and the relaxed type of procrastinators will generally not worry about the work they are not getting done.

(D) Understanding why you procrastinate is the first step in stopping the behavior. Another helpful method is to prioritize your tasks and pay close attention to time management. Setting goals and promising to meet these goals are also ways of avoiding procrastination and increasing work and schoolwork productivity.

(E) Regardless of someone's reason for procrastinating, he or she should try to consult with a counselor to learn about what may be causing their procrastination and how to overcome it.

53. The following sentence can be added to the beginning in one of the paragraphs in the article. Where would it best fit in the article?

**“Though chronic procrastination can be overwhelming, thankfully, there are some ways to modify one's procrastination behavior.”**

54. Based on the expert's explanation, which of the following is NOT a possible cause of procrastination?

- (A) Brain malfunction. (B) Lack of self-confidence.  
(C) Poor working habits. (D) Pessimistic attitude.

55. Which of the following statements is TRUE?

- (A) Procrastinators never worry about the unfinished work or stress.  
(B) Putting off doing things may cause people much stress and torment.  
(C) Counselors are not able to help procrastinators with physical problems.  
(D) The first step in stopping procrastination is to manage one's time well.

56. Which of the following writing mode is NOT used in the article?

- (A) Cause and effect. (B) Problem and solution.  
(C) Compare and contrast. (D) Classification and division.

第二部分；非選題，請將答案寫在非選題答案卷上。

五、中譯英 (共 2 題，每題 4 分，共 8 分)

1. 因為人口增加及科技發展，環境受到很大的影響。
2. 各種汙染及生態多樣性的消失都是跟環保相關的重要議題。

六、英文短文寫作 (共 1 題，20 分)

隨著科技進步，有許多發明也陸續展現在世人的眼前。有些發明讓生活變得有趣，有些則是讓生活變得更加便利。請以 The most impressive invention I've ever seen/experienced 為主題寫一篇 120-150 字左右的短文，第一段介紹這項發明，第二段說明為何這個發明讓你(妳)印象深刻。

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