

國立臺灣師範大學 104 學年度碩士班招生考試試題

科目：英文

適用系所：各系所

注意：本試題共 8 頁，請在答案卡上作答，否則不予計分。

I. Vocabulary (2 points each; 24 points in total): Choose the most appropriate answer.

1. Modern science has certainly revealed a hidden _____ not visible to our senses.
(A) sense (B) cosmos (C) drive (D) phenomenon
2. We now know that time is not absolute, that the ticking rate of clocks _____ their relative speed.
(A) relative to (B) varies with (C) relates (D) related to
3. What we see and understand of the world is only a tiny piece of the extraordinary, perhaps _____ whole.
(A) unconditional (B) unquestionable (C) unfathomable (D) unwavering
4. Modern scientific capability has profoundly altered the _____ of human life.
(A) destiny (B) façade (C) duration (D) course
5. You don't have to spend much time with the elderly or those with terminal illness to see how often medicine _____ the people it is supposed to help.
(A) fails (B) defeats (C) conquer (D) demolish
6. Some people _____ the idea of selling the right to jump the queue.
(A) fail to (B) adverse to (C) object to (D) subject to
7. Tickets for the evening performances are made _____ at 1:00 p.m., and the line forms hours in advance.
(A) to sell (B) existence (C) available (D) possible
8. The retired politician's critical remarks were obviously intended to _____ the authority of the President.
(A) undermine (B) retaliate (C) deteriorate (D) aggravate
9. Even though AIDS has already claimed millions of lives throughout the world, many people still don't _____ the need to take precautions against the disease.
(A) appreciate (B) eventuate (C) overcome (D) confiscate
10. Rampant _____ is undermining the economics of several developing countries in Asia.
(A) enthusiasm (B) charity (C) corruption (D) integrity
11. During the blizzard, the hikers were lucky to find a disused barn where they could take _____ from the howling wind and driving snow.
(A) refuge (B) asylum (C) peace (D) refugee
12. Due to the economic downturn, the number of unemployed people has risen _____ in the last twelve months and will continue to mount for the foreseeable future.
(A) ultimately (B) unanimously (C) eventually (D) substantially

II. Cloze (2 points each; 36 points in total) : Choose the most appropriate answer.

Passage One: Questions 13-21

How Exercise Changes our DNA

國立臺灣師範大學 104 學年度碩士班招生考試試題

We all know that exercise can make us fitter and (13) _____ our risk for illnesses such as diabetes and heart disease. But just how, a run or a bike ride that might translate into a healthier life has remained baffling. Now new research reports that the answer may lie, (14) _____, in our DNA. Exercise, a new study finds, changes the shape and functioning of our genes, an important step on the way to improved health and fitness. The human genome is astonishingly complex and dynamic, with genes constantly turning on or off, depending on what biochemical signals they receive from the body. When genes are turned on, they express proteins that (15) _____ physiological responses elsewhere in the body.

Scientists know that certain genes become active or quieter as a result of exercise. But they hadn't understood how those genes know how to respond to exercise. Scientists at the Karolinska Institute in Stockholm recruited 23 young and healthy men and women, brought them to the lab for a series of physical performance and medical tests, including a muscle biopsy, and then asked them to exercise half of their lower bodies for three months. The volunteers pedaled one-legged at a moderate (16) _____ for 45 minutes, four times per week for three months. Then the scientists repeated the muscle biopsies and other tests with each volunteer. Not surprisingly, the volunteers' exercised leg was more powerful now than the other, showing that the exercise had resulted in physical improvements. But the changes within the muscle cells' DNA were more (17) _____. Using (18) _____ genomic analysis, the researchers determined that more than 5,000 sites on the genome of muscle cells from the exercised leg now featured new methylation patterns. Some showed more methyl groups; some fewer. But the changes were (19) _____ and not found in the unexercised leg.

Where much is left to be explored, one message of this study is (20) _____. "Through endurance training — a lifestyle change that is easily available for most people and doesn't cost much money," Ms. Lindholm said, "we can (21) _____ changes that affect how we use our genes and, through that, get healthier and more functional muscles that ultimately improve our quality of life."

- 13. (A) reduce (B) deduct (C) regain (D) increase
- 14. (A) part for (B) particular (C) partial (D) in part
- 15. (A) preempt (B) prompt (C) to preempt (D) to prompt
- 16. (A) pace (B) exercise (C) place (D) rating
- 17. (A) in awe (B) terrifying (C) intriguing (D) provoking
- 18. (A) suffice (B) satisfied (C) subordinated (D) sophisticated
- 19. (A) indifferent (B) explicit (C) tangible (D) insignificant
- 20. (A) abstract (B) equivocal (C) unambiguous (D) negligible
- 21. (A) abuse (B) infuse (C) seduce (D) induce

Passage Two: Questions 22-30

國立臺灣師範大學 104 學年度碩士班招生考試試題

In October 2012, I attended a lecture given by the Dalai Lama in a cavernous auditorium at the Massachusetts Institute of Technology. Even without words, the moment would have been (22) _____ : one of the world's spiritual leaders sitting cross-legged in a modern temple of science. Among other things, the Dalai Lama spoke about *śūnyatā*, translated as "emptiness," a central concept in Tibetan Buddhism. According to this (23) _____, objects in the physical universe are empty of inherent and independent existence—all meaning attached to them (24) _____ constructions and thoughts in our minds. As a scientist, I firmly believe that atoms and molecules are real (even if mostly empty space) and exist independently of our minds. (25) _____, I have witnessed (26) _____ how distressed I become when I experience anger or jealousy or insult, all emotional states manufactured by my own mind. The mind is certainly its own (27) _____. As Milton wrote in *Paradise Lost*, "It [the mind] can make a heaven of hell or a hell of heaven." In our constant search for meaning in this baffling and temporary existence, trapped as we are within our three pounds of neurons, it is sometimes hard to tell what is real. We often (28) _____ what isn't there. Or ignore what is. We try to (29) _____ order, both in our minds and in our conceptions of external reality. We try to connect. We try to find truth. We dream and we hope. And underneath all of these (30) _____, we are haunted by the suspicion that what we see and understand of the world is only a tiny piece of the whole.

22. (A) profound (B) enormous (C) magnificent (D) colossal
23. (A) region (B) anecdote (C) doctrine (D) bias
24. (A) gets over (B) deprives of (C) conjures up (D) originates in
25. (A) Hence (B) On the other hand (C) In addition (D) Otherwise
26. (A) firsthand (B) by hand (C) on one hand (D) in hand
27. (A) coverage (B) capacity (C) vacancy (D) cosmos
28. (A) adjust (B) invent (C) amplify (D) associate
29. (A) expose (B) repose (C) impose (D) compose
30. (A) competitions (B) longings (C) strivings (D) confusions

III. Reading Comprehension (2 points each; 40 points in total) : Choose the most appropriate answer.

Passage One: Questions 31-35

Google's fully functional driverless car is adorable

Google unveiled its latest self-driving vehicle on Monday and unlike the mock-up car Google first shared in May, this version is fully functional. It even has real headlights. The round, white and gray car is designed without permanent driving tools like a gas pedal or wheel. However, to comply with California state law, there are still removable, temporary controls for the required "safety driver" -- a real person who needs to be in the car and ready to take over in an emergency. The goal is to eventually remove any interior controls so that passengers can take a nap or knit while the car does all the work.

國立臺灣師範大學 104 學年度碩士班招生考試試題

Google's self-driving car team will continue to test the vehicle on a private track in California, where it works its way around traffic lights and mock construction zones. Google has said it's interested in launching a pilot program for the cars in the coming years. When the tech company first started experimenting with self-driving technology, it modified existing cars, like a Toyota, Audi and Lexus, by adding multiple cameras and sensors and an onboard computer. Now Google has moved on to **making its own car from scratch**. The car's dome-like shape is **optimal** for giving sensors the widest field of view.

A car could help put people's minds at ease about the controversial technology. Before self-driving cars can start ferrying us to work, companies need figure out ethical issues (does it hit a deer or crash into the median?), improve basic driving functions, and work with governments on legislation to allow driverless cars on all roads. Google is just one of many companies developing driverless car technology. Universities and major auto manufacturers such as BMW and Mercedes are working on similar vehicles. Google hopes to have its version on the road by the end of the decade.

31. According to the article, self-driving cars
- (A) will become a reality in the near future
 - (B) will often be controlled by human being at times
 - (C) will not need human intervention
 - (D) will not be able to handle emergency
32. Why is quotation used as in "safety driver"?
- (A) It suggests that human drivers are the primary concern for the state of California
 - (B) It suggests that the state of California still prescribes the need for human driver control a vehicle
 - (C) It suggests that whenever emergency happens, self-driving car cannot make wise decisions to prevent accident from happening
 - (D) It suggests that designers of self-driving cars need to design a safe space for human passengers in case accidents happen
33. Which of the following issues is *less likely* to cause controversies?
- (A) who is to be responsible for a dog that gets hit by a self-driving car
 - (B) how many self-driving cars can be allowed on the roads
 - (C) what is the rate for loaning a self-driving car
 - (D) can self-driving car know what to do when it runs out of gas on the highway
34. At the end of the second paragraph, what does it mean by "optimal"?
- (A) self-driving car can capture multiple views from different angles
 - (B) self-driving car can easily move around without running into accidents
 - (C) self-driving car is economical in terms of gas consumed
 - (D) self-driving car is appealing and easy to maneuver
35. What does it mean that Google will **make** their self-driving cars **from scratch** (second paragraph)?

國立臺灣師範大學 104 學年度碩士班招生考試試題

- (A) They will model on the cars in the market but make improvement
- (B) They will compete with BMW and Mercedes to manufacture innovative cars
- (C) They will start from the very basics in designing their cars themselves
- (D) They will recruit talents from around the world to build the cars

Passage Two: Questions 36-43

Life inside the densest place on earth: Remembering Kowloon Walled City

Kowloon Walled City, once the densest place on earth, is a gigantic empire of little houses stacked on top of each other. Picture 33,000 people living there, within the space of one city block. This was such a dark city that even police were rumored to be afraid of it.

Photographer Greg Girard spent years with Ian Lambot to document this unique Hong Kong phenomenon before it was demolished twenty years ago. He recalls how he was amazed at the first sight of it. "It was a huge monstrosity of buildings." The Walled City was a kind of historical accident. It never fully came under the regulation of the British colonial government in Hong Kong. Therefore, its residents were free to build their dwellings as they wished, ignoring safety codes.

"Quite often houses were built by building onto the next building, punching out walls to use their staircases," said Girard. "Many of them didn't have access to air or open space, because they were enclosed in the center of the structure." A variety of small businesses flourished deep within the building's darkness. "There were pig **carcasses** laying splayed out on the floor; it was all pretty open and of course there were no health laws governing the place."

"It was a really humbling process for me as a designer -- when we met this Walled City, we started to see that people could be more intelligent than us -- that they could think of ways to solve problems that are beyond the traditional academic world." Despite the ingenuity of the Walled City, by 1994 it was completely torn down by the city government, which was eager to replace the chaotic and unregulated community with a public park. "Seeing the Walled City fall into disuse was sort of **melancholic**," says Girard. "Every city realizes too late to start caring about their architectural heritage -- it's a mistake that gets repeated everywhere."

Tan believes the spirit of the Walled City continues to pulse through the heart of Hong Kong itself. "Go to The Peak and look down upon this amazing collection of buildings coming together -- it's almost like a blown up version of the Walled City, right?" This organic chaos, he says, has been an inspiration for his own work. "Many architects and urban planners like control," he says. "But people like to get lost in the city. In my design process, I always consciously try to allow accidents, to allow others to participate, to surprise me."

36. What is the main idea of this article?

- (A) A unique Hong Kong phenomenon.
- (B) An adventure of two photographers.
- (C) A story about getting lost in the city.
- (D) An argument between two urban planners.

國立臺灣師範大學 104 學年度碩士班招生考試試題

37. Which of the following statements about Kowloon Walled City is true?
- (A) Kowloon Walled City is dark because there is no electricity supply.
 - (B) The British colonial government transformed this city into public housing.
 - (C) People there built their dwellings without following safety regulations.
 - (D) Kowloon Walled City was torn down recently for safety reasons.
38. Why was Kowloon Walled City the densest place on earth?
- (A) It was located in the center of Hong Kong.
 - (B) Around 30,000 people lived there within just one block of the city.
 - (C) There was little space between corridors and staircases.
 - (D) Small businesses thrived there, which attracted people to go shopping.
39. What was Girard's reaction when he first saw Kowloon Walled City?
- (A) Disgusted by the mess.
 - (B) Surprised by its complexity.
 - (C) Frightened by its density.
 - (D) Bored by its dullness.
40. How was Kowloon Walled City built?
- (A) By building houses on top of each other.
 - (B) By stacking huge bricks together.
 - (C) By obeying strict laws.
 - (D) By imitating British-style buildings.
41. What does "carcasses" in the third paragraph mean?
- (A) Bodies.
 - (B) Organs.
 - (C) Tissues.
 - (D) Liquids.
42. Which saying best describes Girard's words: "it's a mistake that gets repeated everywhere"?
- (A) Let bygones be bygones.
 - (B) Sooner begun, sooner done.
 - (C) Experience is the best teacher.
 - (D) It is too late to spare when the bottom is bare.
43. What may be Tan's occupation?
- (A) A photographer.
 - (B) A policeman.
 - (C) An architect.
 - (D) An official.

Passage Three: Questions 44-50

North Korea denies Sony hack but warns U.S.: Worse is coming

國立臺灣師範大學 104 學年度碩士班招生考試試題

The U.S. government has been accused by North Korea of being behind the making of the movie "The Interview." And, on state media, the totalitarian regime seriously warned the US government that its "citadels" is going to be attacked, dwarfing the hacking attack on Sony that led to the cancellation of the film's release.

North Korea has already launched its severe counteraction. Nothing is more serious miscalculation than guessing that just a single movie production company is the target of the revenge. According to North Korea, its "toughest counteraction will be boldly taken against the White House, the Pentagon and the whole U.S. mainland, the cesspool of terrorism," the report said, adding that "fighters for justice" including the "Guardians of Peace" -- a group that claimed responsibility for the Sony attack -- "are sharpening bayonets not only in the U.S. mainland but in all other parts of the world."

The FBI pinned blame on North Korea for a hack into Sony's computer systems. "It is an act of cybervandalism", said Obama in an interview broadcast Sunday on CNN. He said that the U.S. is going to reconsider whether to put North Korea back on a list of states that sponsor terrorism. "We've got very clear criteria as to what it means for a state to sponsor terrorism. And we don't make those judgments just based on the news of the day," Obama further explained.

The Republican National Committee urged cinema chains to show the movie. In a letter to their CEOs, the chairman mentioned: "As a sign of my commitment, if you agree to show this movie, I will send a note to the Republican Party's millions of donors and supporters urging them to buy a ticket -- not to support one movie or Hollywood, but to show North Korea we cannot be _____ into giving up our freedom." While the film was the work of private individuals, North Korea insisted otherwise in its statement. "The DPRK has clear proof that the U.S. administration was intimately intertwined with the making of such dishonest reactionary movie," it said.

In a CNN interview on Friday, Sony Entertainment CEO Michael Lynton said the studio had not "given in" to any pressure from hackers and was still thinking ways for the distribution of the movie. But that's not exactly what the company initially said after canceling the film's release. On Wednesday night, a studio spokesperson said simply, "Sony Pictures has no further release plans for the movie." But in its latest official statement, released Sunday, the company said: "No decisions have been made so far. Sony is still exploring options to distribute the film."

44. North Korea is firm in position in which of the following issue?

- (A) It believes that the U.S. deliberately produced the movie to belittle North Korea leader.
- (B) It believes that hacking into Sony can prevent the U.S. government from making similar movies again.
- (C) It believes that the movie was produced by private companies.
- (D) It believes that it is time for North Korea to open up to the world.

45. What does it mean when the US president said, "It is an act of cybervandalism"?

- (A) North Korea intended to go into war with the U.S.

國立臺灣師範大學 104 學年度碩士班招生考試試題

- (B) North Korea intended to provoke the U.S. government.
(C) North Korea intended to collaborate with the U.S.
(D) North Korea intended to made advancement in their national security.
46. What is the best word for the blank _____ in paragraph four?
(A) shivered
(B) coincided
(C) applied
(D) bullied
47. What was the attitude of the CEO of Sony Entertainment in the CNN interview more recently?
(A) He refused to comment on the issue.
(B) He did not think the warning from North Korea was an issue.
(C) He would not cave in despite hackers.
(D) He took actions with the FBI to crack down hackers.
48. Which of the following statement is CORRECT?
(A) Sony was attacked by a group called the "Guardians of Peace".
(B) The FBI firmly believed that North Korea hacked in Sony's computer system.
(C) The U.S. president claimed that criminal hackers would be arrested any day soon.
(D) CNN was one of the targets of North Korea's attack.
49. According to the article, which of the following statement is NOT true?
(A) Sony Entertainment has not decided on the distribution of the movie.
(B) The movie is predicted to be a blockbuster.
(C) North Korea is currently off the list of states that sponsor terrorism.
(D) It has not been proven that North Korea hacked into Sony's computer system.
50. Which of the following can best conclude the article?
(A) North Korea will be one of the markets chosen to release the movie.
(B) The U.S. is going to sanction North Korea for its support of terrorism.
(C) The public will force the U.S. to stop the distribution of the movie.
(D) The public is concerned about Sony's attitude in showing the film.