

國立高雄第一科技大學 106 學年度 碩士班 招生考試 試題紙

系 所 別：應用英語系

組別：不分組

應用語言學與英語教學碩士班

考科代碼：2511

考科：一般英語

注意事項：

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I. Vocabulary (30%)

Part A: Choose the best answer that completes each sentence.

1. Stacy has high goals for herself. With her _____ and ambition, she will have no trouble reaching her goals.
(A) parade (B) drive (C) election (D) grief
2. The excess rains caused flooding in the mountainous regions, which then _____ landslides.
(A) mastered (B) separated (C) triggered (D) defended
3. This painting _____ all the loneliness the painter was feeling after the death of his beloved family.
(A) conveys (B) praises (C) flatters (D) decorates
4. With his _____ approach, our new boss is completely different from our former boss who was loud and showy.
(A) intensive (B) high-cost (C) exaggerating (D) low-key
5. Helen wanted to _____ her life. Instead of working all the time, she took a trip somewhere or tried a new activity.
(A) cross over (B) turn down (C) flash back (D) spice up
6. Mary's outgoing personality seems to _____ her husband's quiet manner. They are a good match for each other.
(A) abolish (B) complement (C) misguide (D) overwhelm

7. Ted is such a _____ that it is hard to convince him to go out. He would rather just stay home.
(A) homebody (B) bodyguard (C) busybody (D) housekeeper
8. The Nile River in Egypt has the _____ of being the longest river in the world.
(A) consumption (B) prediction (C) revolution (D) distinction
9. Susan is a good _____ for class president. She has been vice president for the past two years.
(A) receptionist (B) breadwinner (C) candidate (D) mechanic
10. Lisa once said she would never date Sam. Now that they are dating, she has had to eat her words, _____.
(A) to conclude (B) so to speak (C) as well (D) not to mention

Part B: Choose the best answer that is closest in meaning to the underlined word or phrase.

11. Tim has harbored feelings of affection for Jane for years, but he has never let her know how he feels.
(A) sought (B) reminded (C) kept (D) decided
12. At my company, the day begins with our customary morning exercises. Then we all start working.
(A) precious (B) rapid (C) scarce (D) habitual
13. Last night's turnout was more than we expected! We will need to rent a larger space for next month's event.
(A) attendance (B) celebration (C) entertainment (D) quietness
14. Researchers plan to increase their search for medicinal plants in the virgin rainforests of Brazil.
(A) insecure (B) abnormal (C) dishonest (D) unused
15. For starters, you will need to apply to several universities. Then wait to see which ones accept you.
(A) In addition (B) First of all (C) To sum up (D) Last but not least

II. Reading Comprehension (40%; 10% for each passage)

Choose the best answer for each question

Passage 1: (Questions 16 to 20)

Imagine producing meat at home without killing animals. With a few cells and a keg, the process could be no more complicated than brewing your own beer or pickling vegetables. That's the vision of Isha Datar, the CEO of New Harvest, a non-profit organisation aiming to create everything from burgers to silk from cell cultures. "It's like designing a new universe," she told Hello Tomorrow, an event that brought together technology entrepreneurs in Paris last year.

Cultured meat isn't a new idea but it has largely focused on mass-producing beef and pork. In 2013, the first tasting of a lab-grown burger in London grabbed headlines, but the showpiece cost €300,000 and took a year to create. The taste of the burger was described as intense, "close to meat but not as juicy." Growing large quantities of meat from cells in a sustainable way is still far off. As Datar says, "there are so many breakthroughs required".

One of the biggest problems is producing a thick enough piece of meat. The hamburger created for the press event was made by combining several small lab-grown pieces. Since meat is predominantly made of muscle, the process currently involves harvesting muscle stem cells from an animal's body. These are the self-renewing cells that are activated after an injury to repair the damage. They are then coaxed to multiply in the lab by mimicking the job of blood vessels, feeding them with nutrients and oxygen. Although scaffolds are typically used, they struggle to supply every cell as the tissue gets thicker.

Some types of meat may be easier to scale up than others, though. Paul Mozdziak from North Carolina State University and his colleagues, who are working on producing cultured turkey meat, have found that avian muscle cells may not need a scaffold to grow. Instead, they could be cultured in a vessel like a keg or bioreactor, which would allow larger samples to form. Avian cells seem to be able to adjust to different environments more easily than bovine cells, says Datar, so they would be more conducive to home culturing.

Taste is a complicated issue for researchers trying to engineer meat because all different kinds of tissue contribute to flavour. Meat isn't pure muscle: its fat content is responsible for much of its culinary appeal. But Mozdziak and his team found that certain turkey cell cultures could be coaxed to form fat along with muscle when subjected to specific conditions. And the process could be tweaked to combine the muscle and fat into a desired consistency. However, it will probably be easier to replicate the texture of a nugget than to apply the technique to try to replicate a tender prime fillet of beef.

Experimentation will be key. But the first hurdle often faced by enthusiasts is obtaining cells to start the process. At the moment, muscle stem cells are most easily obtained from fresh meat at a slaughterhouse or from live animals – preferably young ones since their stem cells are more plentiful. But harvesting them is hard work.

(*New Scientist*, Sandrine Ceurstemont, Jan. 11, 2017)

16. What will be the best title for this article?
- A. Create Your Own Meat
 - B. Train Your Own Muscle
 - C. Protect Endangered Animals
 - D. Cultivate Your Own Taste
17. According to this article, what was the problem of growing large quantities of meat at the early stage?
- A. There were not enough stem cells.
 - B. Customers didn't like the taste.
 - C. It cost lots of money and took a long time.
 - D. The facility was not advanced enough.
18. The process of producing a thick enough piece of meat mainly relies on
- A. the stem cells of a human body
 - B. the stem cells of an animal's body
 - C. the cells of a plant
 - D. any inanimate objects
19. Which one of the following is not true
- A. Some types of meat may be easier to scale up than others.
 - B. Taste is a complicated issue for researchers.
 - C. Avian muscle cells may need a scaffold to grow.
 - D. Avian cells would be more conducive to home culturing.
20. What would be the key to solve the complicated issue about taste?
- A. Need more stem cells.
 - B. Need more supports from the government.
 - C. Facilities need to be upgraded.
 - D. Need more experimentation in the laboratory.

Passage 2: (Questions 21 to 25)

The Perils of Sharing

Something new has recently occurred in the timeless human activity of socialising, and it will begin to cause a lot of grief in 2009. The fashionable term for it is “sharing”. In its new context, this refers to volunteering personal information that used to be considered off-limits to all but the most intimate friends and relatives—but that is now taking on a life of its own.

It may consist of daily photos to chronicle a pregnancy, uploaded to websites such as Flickr or Facebook and adorned by comments from “friends”, real and imagined. Or video clips of bacchanalia by the hockey team. Or geo-tagged and time-dated clips of the girls’ softball team’s weekly practice, with each girl’s name tagged and pointing to a MySpace page.

But things can go wrong in pregnancies, and prying eyes that are not those of friends suddenly witness tragedies or a cruel hiatus in updates. College-admissions deans and potential employers browse bacchanalian footage. Perverts can plot detailed schedules of a particular girl’s movements on a given practice day.

People have always tried to manage their reputation, and today’s new media give them powerful tools to do just that. So most people participate, and share, enthusiastically. This is rational, says Edward Felten, a privacy expert at Princeton University, because they get benefits: inclusion into a community and more control in crafting and presenting their own image.

The problem is that they quickly lose that control. This has to do with what Steven Rambam, a professional investigator, modestly calls “Rambam’s Law”: whatever purpose a piece of information may have been created and shared for, it will eventually be used for something else. There was a time when the likes of Mr Rambam got paid big bucks to snoop out somebody’s picture, sexual history, mother’s maiden name (still a popular password) and list of friends. Today, this is a matter of minutes spent stitching together data from a few web sites. An identity thief, a political rival, a bitter ex-spouse, a litigant—anybody who is savvy and wants information—can get it.

The only remaining choice is whether or not to inject our own perspective, with our own media, into this never-ending stream of narratives, to preserve whatever control remains in presenting our own image. The wise will still share things about themselves in 2009. But they will become hyper-sensitive about sharing collateral information about others, in the hope that reciprocity and a new etiquette will eventually limit everybody’s vulnerability, including their own. (*The Economist*)

21. What will be the best title for this essay?
- A. The Power of Social Media
 - B. The Perils of Sharing
 - C. The Problems of Information Overload
 - D. The Meaning of reciprocity
22. What scenery cannot be applied in terms of "Rambam's Law"?
- A. Daily Photos
 - B. list of friends
 - C. Sexual history
 - D. Grief
23. The meaning of "snoop out" is
- A. get away from something
 - B. avoid something
 - C. look around in order to find out something
 - D. take control of something
24. What kind of person do we normally share something with?
- A. intimate friends and relatives
 - B. political rivals
 - C. identity thieves
 - D. litigants
25. What does the article suggest in the last paragraph?
- A. We should carefully plot detailed schedules.
 - B. We can quickly collect data.
 - C. We can manage our reputation.
 - D. We should carefully control what we are sharing with.

Passage 3: (Questions 26 to 30)

The industrial revolution of the late 18th century made possible the mass production of goods, thereby creating economies of scale which changed the economy—and society—in ways that nobody could have imagined at the time. Now a new manufacturing technology has emerged which does the opposite. Three-dimensional printing makes it as cheap to create single items as it is to produce thousands and thus undermines economies of scale. It may have as profound an impact on the world as the coming of the factory did.

It works like this. First you call up a blueprint on your computer screen and tinker with its shape

and colour where necessary. Then your press print. A machine nearby whirrs into life and builds up the object gradually, either by depositing material from a nozzle, or by selectively solidifying a thin layer of plastic or metal dust using tiny drops of glue or a tightly focused beam. Products are thus built up by progressively adding material, one layer at a time: hence the technology's other name, additive manufacturing. Eventually the object in question—a spare part for your car, a lampshade, a violin—pops out. The beauty of the technology is that it does not need to happen in a factory. Small items can be made by a machine like a desktop printer, in the corner of an office, a shop or even a house: big items—bicycle frames, panels for cars, aircraft parts—need a larger machine, and a bit more space.

At the moment the process is possible only with certain materials (plastics, resins and metals) and with a precision of around a tenth of a millimeter. As with computing in the late 1970s, it is currently the preserve of hobbyists and workers in a few academic and industrial niches. But like computing before it, 3D printing is spreading fast as the technology improves and costs fall. A basic 3D printer, also known as a fabricator or “fabber”, now costs less than a laser printer did in 1985.

The additive approach to manufacturing has several big advantages over the conventional one. It cuts costs by getting rid of production lines. It reduces waste enormously, requiring as little as one-tenth of the amount of material. It allows the creation of parts in shapes that conventional techniques cannot achieve, resulting in new, much more efficient designs in aircraft wings or heat exchangers, for example. It enables the production of a single item quickly and cheaply—and then another one after the design has been refined. (*The Economist*, Feb. 12, 2011)

26. What is the main subject in this article?

- A. The Industrial Revolution
- B. Desktop printer
- C. Economic scale
- D. 3D printing

27. Which one of the following is not true?

- A. You don't need a blueprint and tinker with its shape and color.
- B. Products are built up by progressively adding material, one layer at a time.
- C. Small items can be made by a machine like a desktop printer.
- D. It builds up the object gradually by depositing material from a nozzle.

28. The beauty of the technology is

- A. It saves lots of money.
- B. It can create reusable products.
- C. It does not need to happen in a factory.
- D. It can only be produced in Factory.

29. Which one of the following materials is not used in the process?

- A. Resins
- B. Woods
- C. Plastics
- D. Metals

30. What is the author's attitude toward this technology?

- A. Optimistic
- B. Cautious
- C. Pessimistic
- D. Uncertain

Passage 4: (Questions 31 to 35)

Meeting the Challenge of Demographic Change

Over the last two decades, our colleges and our work force have benefited from a 30-percent increase in the number of students graduating from high school, but projections show an alarming departure from that trend in the near future. Not only will some regions see flat or declining graduation numbers, the new arrivals on our college campuses will be increasingly nonwhite, first generation, and low income.

If we fail to act decisively and collaboratively, college enrollments could decline at the same time that our need for college-educated workers will increase. Colleges must change the way they recruit and retain an increasingly diverse student body or they will face declining enrollments and declining revenue. In other words, it is not only in the students' interest but that of our institutions and our economy to double down on our efforts to enroll and graduate students who have too often been overlooked in the past.

All of our institutions, including four-year colleges and research universities, have to do their share to educate and graduate more students of color. For example, in Texas, the most selective institutions have made significant progress. Yet only 20 percent of their total enrollment is Hispanic despite nearly 40 percent of the state's population being Hispanic. Others have scaled up campus initiatives to provide academic supports, such as counseling and tutoring and nonacademic supports, some of which connect students to public services related to housing, transportation, health care and meals. And many institutions have worked to increase the diversity of their faculty and their leadership.

While these approaches and others work, we need to improve how we share strategies and successes across sectors and among all types of postsecondary institutions. At the same time, higher education must work with, and not blame, the public-school system that prepares students for college.

Colleges and communities that have improved college completion have created partnerships with feeder schools as part of a master plan to ensure that public-school students have the opportunity to visit campuses and understand as early as elementary school that college can be part of their future. Familiarity with college opportunities should not be a right granted solely to students from wealthier families.

Dual-credit programs are another way to create a college-going culture among all students and to prepare them for college success by engaging more low-income students and students of color in college-level work while still in high school. High-school students who graduate with college credits outperform others who do not. In El Paso, for example, 80 percent of dual-enrollment students matriculate in college.

Our system of higher education is built on a foundation of high expectations and high standards for our students — and that foundation must remain. However, if we want to help all students succeed in higher education, we have to change what we do and not simply expect students to change to adapt to our expectations. How we answer the knock at our doors matters more than ever.

(The Chronical of Higher Education, Joe Garcia, Dec. 06, 2016)

31. What would not be the projections for colleges in the near future?
- A. The number of students graduating from high school will increase.
 - B. Graduation numbers will decline.
 - C. There would be more students from low-income families.
 - D. Nonwhite students will increase in campuses.
32. What would be the results of declining college enrollments?
- A. Increasing revenue
 - B. Declining revenue
 - C. Better administration
 - D. Worse administration
33. What would be the method to dealing with declining enrollments?
- A. Colleges should avoid partnerships with feeder schools.
 - B. Graduate students should be overlooked in the future.
 - C. Colleges should educate and graduate more students of color.
 - D. Colleges should not allow public-school students to visit campuses.

34. Which one of the following is not true regarding Dual-credit programs?
- A. It can college-going culture.
 - B. It can prepare students for college success.
 - C. High-school students who graduate with college credits will perform worse.
 - D. low-income students have more opportunities to get education.
35. Which one of the following is not included in academic supports?
- A. entertainment
 - B. housing
 - C. health care
 - D. transportation

III. Writing (30%):

Please use 150~200 words to describe the major challenges in Higher Education (HE) of Taiwan between 2008 and 2028 based on the chart. below.

