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國立臺北科技大學 106 學年度碩士班招生考試

系所組別：6200 應用英文系碩士班

第一節　英文高階字彙與閱讀　試題

注意事項：

1.本試題共 23 題，每題分數參照下面敘述，共 100 分。
2.請標明大題、子題編號作答，不必抄題。
3.全部答案均須在答案卷之答案欄內作答，否則不予計分。

(A) Complete the following reading with the words (regardless of case) from the box. Each blank is worth 4 points.

a. satisfactions　b. shortfalls　c. individual　d. paradoxically　e. secluded
f. affluent　g. extreme(s)　h. contrast(s)　i. congestion　j. confined

Positional economy

All those goods, services, occupations, or other social relationships that are either scarce in an absolute or socially imposed sense, or subject to crowding or (1)_____ through more extensive use. Examples would include everything from top jobs, pleasant tourist locations or desirable residential areas, to front seats at the opera.

What these diverse goods and situations have in common is that the (2)_____ obtained from them derive in part from scarcity and social exclusiveness. Moreover, (3)_____ in the supply of such items cannot be overcome by economic growth alone, since (to put the matter at its most simple) expansions in productivity do not change the fact that not everyone can be President of the Company and not everyone can have tickets to the Superbowl.
In Social Limits to Growth (1976), Fred Hirsch identifies a wide range of jobs and goods that are subject to positional competition, and argues that (4)_____ societies are increasingly prone to distributional conflict over facilities and services which cannot be acquired or used by all without spoiling them for all. Or, as Hirsch puts it, 'what each of us can achieve, all cannot'. A few tourists can enjoy the attractions of a (5)_____ beach; if we all attempt to enjoy them then the attractions themselves are destroyed.

Hirsch's view of positional competition (6)_____ with the optimism of many conventional theories of economic growth. The latter tend to assume that increases in productivity solve distributional issues (since there is more pie to go round), and overlook the fact that the expanding sphere of what is generally called 'public consumption' actually contains some of the characteristics of private goods, in that its costs and benefits can be or are (7)_____ to a limited group. Few consumption items are either purely private or wholly public. To a thirsty worker, the satisfaction of a cold beer is unaffected by the beers other people drink, since the drink itself is a private good. At the other (8)_____, clean air is a pure public good, since the quality of the air each individual breathes is wholly dependent on what other individuals do by way of encouraging or preventing pollution. However, in advanced capitalist societies, the major part of so-called private consumption actually contains a social (positional) element. (9)_____, social scarcity is therefore a consequence of affluence, and (for Hirsch at least) this tends to suggest that the principle of self-interest will not serve by itself as a basis for social organization, since a distributional or social morality will be required in order to manage positionality problems. Unfortunately, such societies possess a 'depleting moral legacy' of pre-industrial and pre-capitalist status orders, and concern for the welfare of the community has largely given way to the increasing pursuit of (10)_____ advantage.
(Reading extracted from Scott & Marshall "A Dictionary of Sociology", 2015)

(B) Read the following text and answer the question. The question is worth 5 points.

One of the most general and best-known distinction in research methodology is that between qualitative and quantitative research. As Davies (1995) emphasizes, the distinction signifies more than merely using figures versus non-quantitative data (such as open-ended interviews or natural data); instead, the distinction refers to several things at the same time: the general ideological orientation underlying the study, the method of data collection applied, the nature of the collected data, and the method of data analysis used to process the data and to obtain results. A preliminary working definition for the two approaches is: *Quantitative research* involves data collection procedures that result primarily in numerical data which is then analyzed primarily by statistical methods. A typical example is survey research using a questionnaire, analyzed by statistical software such as SPSS. *Qualitative research* involves data collection procedures that result primarily in open-ended, non-numerical data which is then analyzed primarily by non-statistical methods. A typical example is interview research, with the transcribed recordings analyzed by qualitative content analysis.

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Although the two paradigms represent two different approaches to empirical research, they are not necessarily exclusive. Their principled combination has led to an emerging third research approach: *Mixed methods* research involves different combinations of qualitative and quantitative research either at the data collection or at the analysis levels. Typical examples are consecutive and interrelated questionnaire and interview studies.
(Adapted from Dörnyei's "Research methods in applied linguistics, 2007)

(11) _____ Which of the following statements is false about the quantitative approach of research?

(a) Uses different methods of data collection from qualitative research
(b) Has to have numerical results
(c) Is dichotomously different from the qualitative method
(d) Has different approaches of analyzing data from qualitative research.

(C) Read the following text and answer the questions. Each question is worth 5 points.

One of the most basic philosophical questions for artificial intelligence (AI) is "Can machines think?" We will not attempt to answer this question directly, because it is not clearly defined. To see why, consider the following questions:

• Can machines fly?
• Can machines swim?

Most people would agree that the answer to the first question is yes, airplanes can fly, but the answer to the second is no; boats and submarines do move through the water, but we do not normally call that swimming. However, neither the questions nor the answers have any impact at all on the working lives of aeronautic and naval engineers. The answers have very little to do with the design or capabilities of airplanes and submarines, and much more to do with the way we have chosen to use words. The word "swim" has come to mean "to move along in the water by movements of the limbs or other body parts," whereas the word "fly" has no such limitation on the means of locomotion.

To complicate matters, words can be used metaphorically, so when we say a computer (or an engine, or the economy) is running well, we mean it is operating smoothly, not that it is propelling itself with its legs in an admirable fashion. Similarly, a person who says, "My modem doesn't work because the computer thinks it is a 2400-baud line" is probably using "thinks" metaphorically, and may still maintain that computers do not *literally* think.

The practical possibility of "thinking machines" has been with us only for about 40 years, not long enough for speakers of English to settle on an agreed meaning for the word "think." In the early days of the debate, some philosophers thought that the question of thinking machines could be settled by means of linguistic analysis of the kind hinted at earlier. If we define "think" to mean something like "make decisions or deliberations by means of an organic, natural brain," then we must conclude that computers cannot think. Ultimately, the linguistic community will come to a decision that suits its need to communicate clearly, but the decision will not tell us much about the capabilities of machines.

Alan Turing, in his famous paper "Computing Machinery and Intelligence" (Turing, 1950), suggested that instead of asking "Can machines think?" we should instead ask if they can pass a behavioral test (which has come to be called the Turing Test) for intelligence. He conjectured that by the year 2000, a computer with a storage of 109 units could be programmed well enough to have a conversation with an interrogator for 5 minutes and have a 30% chance of fooling the interrogator into thinking it was human. Although we would certainly not claim that anything like general, human-level intelligence will be achieved by that time, his conjecture may not be that far off the truth. Turing also examined a wide variety of possible objections to the possibility of intelligent machines, including virtually all of those that have been raised in the 44 years since his paper appeared.

Some of the objections can be overcome quite easily. For example, Lady Ada Lovelace, commenting on Babbage's Analytical Engine, says, "It has no pretensions to *originate* anything. It can do *whatever we know how to order it* to perform." This objection, that computers can only do what they are told to do and are therefore not capable of creativity, is commonly encountered even today. It is refuted simply by noting that one of the things we can tell them to do is to learn from their experience. For example, Samuel's checker-playing program performed very poorly with its original programming. However, it was able to learn, over the course of a few days of self-play, to play checkers far better than Samuel himself. One can try to preserve Lady Lovelace's objection by maintaining that the program's ability to learn originated in Samuel, and so too did its checker-playing ability. But then one would also be led to say that Samuel's creativity originated in his parents, and theirs originated in their parents, and so on.

The "argument from disability" takes the form of a claim, usually unsupported, to the effect that "a machine can never do X." As examples of *X,* Turing lists the following:
Be kind, resourceful, beautiful, friendly, have initiative, have a sense of humor, tell right from wrong, make mistakes, fall in love, enjoy strawberries and cream, make someone fall in love with it, learn from experience, use words properly, be the subject of its own thought, have as much diversity of behavior as man, do something really new.

Although some of these abilities concern the consciousness of machines, which we discuss at length in what follows, many concern behavioral properties. Turing suggests that skepticism of this nature arises from experience of machines as devices for carrying out repetitive tasks requiring little sensory and no reasoning ability. He points to the fact that in the late 1940s, the general population found it difficult to believe that machines could find numerical solutions of equations or predict ballistic trajectories. Even today, however, many technically literate people do not believe that machines can learn.

The supposed inability to make mistakes presents an interesting problem when considering the Turing Test. Certainly, instantaneous and correct answers to long division problems would be a giveaway, and some attempt to simulate human fallibility would be required. But this is not a mistake in the normal sense, because the program is doing exactly what its designer intended. Something more akin to human mistakes will arise when intractable problems are involved. For example, given only a small amount of time to find a chess move, the computer must essentially guess that its move is correct. Similarly, a program that is trying to induce hypotheses from a small amount of data is bound to make mistakes when using such hypotheses for prediction. When unavoidably irrational behavior on the part of the computer matches corresponding failings of humans, this provides evidence that similar mechanisms are in operation. Rational behavior, on the other hand, provides much weaker constraints on mechanisms.

What Turing calls the mathematical objection concerns the proven inability of computers to answer certain questions. We discuss this in-principle barrier to intelligence in Section 26.3. In-practice objections center on the so-called "argument from informality," which claims that intelligent behavior cannot be captured by formal rules. We discuss this category of objections in Section 26.3. The final, and most interesting, objection claims that even if computers behave as intelligently as humans, they still will not *be* intelligent. Although AI cannot do much more than make machines behave intelligently, we still have some fun discussing the issue in Section 26.4.
(Adapted from Russell & Norvig's "Artificial Intelligence: a modern approach", 2009)

(12) _____What's the most likely answer that the author would tell you if he were asked the question, "Can machines think?"
(a) "Yes, they can think."
(b) "Please define 'think'."
(c) "No, machines cannot think."
(d) "Machines might be able to think in the future."

(13) _____ According to the passage, why do people tend to be skeptical of the idea of "thinking machines"?
(a) People firmly believe that they are superior to machines.
(b) Machines cannot be the subjects of its own thought.
(c) People have their own existing biased opinion towards machines.
(d) Machines fail to pass a behavioral test.

(14) _____According to the passage, which questions would NOT be discussed in the following chapters?
(a) Can machines swim?
(b) Do machines have consciousness?
(c) Can machines behave like humans?
(d) Can machines learn?

(15) _____Why does the author ask two questions in the beginning of the paragraph?
(a) Ask the readers to choose the right questions to ask when thinking of AI.
(b) For readers to understand the limits of machines.
(c) For readers to understand the ambiguities the term AI may entail.
(d) Encourage readers to ask more questions about AI.

(16) The passage tries to _____ for readers.
(a) provide a projection of what the next step of artificial intelligence is
(b) build philosophical foundations of artificial intelligence
(c) define what artificial intelligence is
(d) highlight the conflict between humans and machines

(D) Read the following text and summarize it. This part is worth 12 points.
Paying people to be sterilized is one brazen example. Here is another: school districts across the United States now try to improve academic performance by paying children for getting good grades or high scores on standardized tests. The idea that cash incentives can cure what ails our schools looms large in the movement for educational reform.

[…] In 1996, Texas launched the Advanced Placement Incentive Program, which pays students from $100 to $500 (depending on the school) for earning a passing grade (a score of 3 or higher) on AP exams. Their teachers are also rewarded, with $100 to $500 for each student who passes the exam, plus additional salary bonuses. The incentive program, which now operates in sixty Texas high schools, seeks to improve the college readiness of minority and low-income students. A dozen states now offer financial Incentives to students and teachers for success on AP tests.

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Some incentive programs target teachers rather than students. Although teachers' unions have been wary of pay-for-performance proposals, the idea of paying teachers for academic achievement of their students is popular among voters, politicians, and some educational reformers. Since 2005, school districts in Denver; New York City; Washington, D.C.; Guilford County, North Carolina; and Houston have implemented cash incentive schemes for teachers. In 2006, Congress established the Teacher Incentive Fund to provide pay-for-performance grants for teachers in low-achieving schools. The Obama administration increased funding for the program. Recently, a privately funded incentive project in Nashville offered middle school math teachers cash bonuses of up to $15,000 for improving the test scores of their students.

The bonuses in Nashville, sizable though they were, had virtually no impact on students' math performance. But the Advanced Placement incentive programs in Texas and elsewhere have had a positive effect. More students, including students from low-income and minority backgrounds, have been encouraged to take AP courses. And many are passing the standardized exams that qualify them for college credit. This is very good news. But it does not bear out the standard economic view about financial incentives: the more you pay, the harder students will work, and the better the outcome. The story is more complicated.

The AP incentive programs that have succeeded offer more than cash to students and teachers; they transform the culture of schools and the attitudes of students toward academic achievement, such programs provide special raining for teachers, laboratory equipment, and organized tutoring sessions after school and on Saturdays. One tough urban school in Worcester, Massachusetts, made AP classes available to all students, rather than to a preselected elite, and recruited students with posters featuring rap stars, "making it cool for boys with low-slung jeans who idolize rappers like Lil Wayne to take the hardest classes." The $l00 incentive for passing the AP test at the end of the year was a motivator, it seems, more for its expressive effect than for the money itself. "There's something cool about the money," one successful student told The New York Times. "It's a great extra." The twice-weekly after-school tutoring sessions and eighteen hours of Saturday classes provided by the program also helped.

When an economist looked closely at the Advanced Placement incentive program in low-income Texas schools, he found something interesting: the program succeeded in boosting academic achievement but not in a way that the standard "price effect" would predict (the more you pay, the better the grades). Although some schools paid $100 for a passing grade on the AP test, and others paid as much as $500, the results were no better in schools that offered the higher amounts. Students and teachers were "not simply behaving like revenue maximizers," wrote C. Kirabojackson, the author of the study.

So what was going on? The money had an expressive effect—making academic achievement "cool." That's why the amount was not decisive. Although only AP courses in English, math, and science qualified for the cash incentives at most schools, the program also led to higher enrollment in other AP courses, such as history and social studies. The Advanced Placement incentive programs have succeeded not by bribing students to achieve but by changing attitude toward achievement and the culture of schools.
(Extracted from Sandel's "What Money Can't Buy: the moral limits of markets", 2013)

(17) Please summarize the passage within 100 words.

(E) Find synonyms for each following words. Each question is worth 3 points.

a. moldable	b. common	c. compel
d. take the place of	e. complicated	f. praise highly

(18) _____ coerce
(19) _____ extol
(20) _____ supersede
(21) _____ prevalent
(22) _____ malleable
(23) _____ convoluted