

系所組別： 電腦與通信工程研究所乙組

考試科目： 通訊工程英文

考試日期：0220，節次：1

※ 考生請注意：本試題  可  不可 使用計算機 請勿在本試題紙上作答，否則不予計分

## I. 閱讀理解 (20\*2%=40%)

More and more students want to study in “hot” majors. 1 a result, many students want to 2 their interests and study in these 3 such as foreign languages, international business and law, etc.

Fewer and fewer students choose scientific majors, 4 maths, physics and biology, and art majors, 5 history, Chinese and philosophy.

6 students can study in these “hot” majors, because the number of these “hot” majors 7 limited.

If one 8 interest in his work or study, 9 can he do well? I 10 this from one of my classmates. He is 11 the countryside. His parents are farmers. Though he 12 biology, he chose “international business”. He 13 to live a life which is different 14 of his parents.

In the end, he found he 15 in doing business. He found all the subjects to be 16. 17 this wouldn't have happened if he had chosen his major according to his own interests.

Choosing a major in university 18 decide one's whole life. Majors 19 are not “hot” today may become the “hot” major of tomorrow.

Choosing your major according to your own 20 is the best way to succeed.

1. A. Being B. For C. Having D. As

2. A. give up B. appear C. give D. master

3. A. place B. room C. areas D. space

4. A. for example B. much as C. and so on D. as a result

5. A. even B. like C. just D. or

6. A. Only a few B. Quite a few C. Perhaps D. Many

7. A. is B. are C. would be D. have been

8. A. had no B. had C. has no D. has

9. A. why B. and what C. how D. and how

(背面仍有題目,請繼續作答)

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10. A. suggested B. guessed C. searched D. learned

11. A. out of B. off C. in D. from

12. A. studied B. likes C. learns D. succeeds to study

13. A. wants B. doesn't want C. enjoys D. doesn't like

14. A. from which B. from that C. for which D. for that

15. A. was interested B. was clever C. was not interested D. was not clever

16. A. lovely B. rare C. obvious D. tiresome

17. A. So B. Then C. Just then D. Maybe

18. A. can B. does not C. probably D. perhaps not to

19. A. on which B. in which C. which D. at which

20. A. interests B. experience C. mind D. heart

II 挑錯與改正：從 S1 到 S10 有 10 個空格，每一空格代表該句有一錯誤，請挑出該錯誤並改正(10\*3%=30%)

例：

Now he had the capability to leave that planet S0. \_\_\_\_\_  
and move out into the universe to those worlds which he  
has known previously only directly.

答案：S0: had→has

Sporting activities are essentially modified forms of hunting  
behavior. Viewing biologically, the modern footballer is revealed as a S1. \_\_\_\_\_  
member of a disguised hunting pack. His killing weapon has turned into  
a harmless football and his prey into a goal-mouth. If his aim is inaccurate S2. \_\_\_\_\_  
and he scores a goal, enjoys the hunter's triumph of killing his prey. S3. \_\_\_\_\_

To understand how this transformation has taken place we  
must briefly look up at our ancient ancestors. They spent over a S4. \_\_\_\_\_  
million year evolving as co-operative hunters. Their very survival S5. \_\_\_\_\_  
depended on success in the hunting-field. Under this pressure their whole  
way of life, even if their bodies, became radically changed. They became S6. \_\_\_\_\_

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chasers, runners, jumpers, aimers, throwers and prey-killers.

They co-operate as skillful male-group attackers. S7. \_\_\_\_\_

Then, about ten thousand years ago, when this immensely long S8. \_\_\_\_\_

formative period of hunting for food, they became farmers. Their

improved intelligence, so vital to their old hunting life, were put to a new S9 \_\_\_\_\_

use-that of penning, controlling and domesticating

their prey. The food was there on the farms, awaiting their needs. The

risks and uncertainties of farming were no longer essential for survival. S10. \_\_\_\_\_

II! 英翻中 (30%)

Today, the worldwide mobile communication infrastructure offers ubiquitous mobile connectivity and unprecedented service levels. More than 4 billion subscribers around the world depend on their mobile phones for their private and professional lives; however, this has come at the cost of increasing energy consumption. Thus far, the mobile communications industry has focused on highly energy efficient terminals, so to make mobile phones reliable and attractive for consumers, a factor that has strongly contributed to the global success of mobile radio. The emerging trend towards energy-efficient network operation shifts the focus towards the energy consumption of the wireless access network infrastructure, which has triggered activities in standardization and regulatory bodies, such as 3GPP, ITU, ETSI, and ATIS.

There are several reasons for the growing awareness of energy-efficient wireless networks in the telecommunication community. Increasing energy prices imply that electricity bills have become a significant cost factor for mobile operators. In addition, mobile telephony and mobile broadband are entering new emerging markets, with an increasing share of base stations that are not connected to the electricity grid. Such off-grid sites are typically diesel powered, where fuel is costly and distribution often unreliable for distant sites that are difficult to access. For operators with many off-grid sites, energy provision may contribute up to 50 percent of their total operational cost. There is also an increasing awareness in the society about manmade climate effects, and the need to slow down global warming. Moreover, political initiatives are beginning to put requirements on manufacturer and operators to lower CO2 emissions of communication networks. The European Commission research project EARTH, consolidates the energy efficiency activities from major vendors, operators and academia in Europe. The project concentrates on energy efficiency in radio access networks, covering a wide span of activities from near future component research and development to long term research for theoretical limits of different concepts; the goal is to find solutions and concepts that can reduce the energy consumption of mobile broadband systems by 50 percent

(source: "Challenges and enabling technologies for energy aware mobile radio networks", Correia, L.M. Zeller, D. Blume, O. Ferling, D. Jading, Y. Gódor, I. Auer, G. Van Der Perre, L, IEEE Communications Magazine, Nov. 2010, pp: 66-72)