國立成功大學 109 學年度碩士班招生考試試題

系　　所：地球科學系

考試科目：科學英文

考試日期：0211，節次：1

※ 考生請注意：本試題不可使用計算機。 請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

一、單選題 (每一題二分，共計二十分)

1. The mayor was hailed for his successful _____of crime in the city.
a. reduce
b. reduced
c. reduces
d. reduction

2. The announcement was made last week that the owner will _____the company and lay off up to half the staff.
a. decrease
b. downsize
c. reduce
d. minimize

3. _____ the interview is over, don't forget to ask when you can expect to hear back from the interviewer.
a. After
b. By the time
c. Whereas
d. All in all

4. Thailand and many of its _____countries were severely impacted by the tsunami.
a. neighbors
b. neighboring
c. neighborly
d. neighborhood

5. Nick forgets _____ he signed the contract before he sealed the envelope.
a. if
b. that
c. what
d. why

6. The only thing ____ Carl dislikes the most about this professor, Mr. Simpson, is that he mumbles when he speaks so he is hard to understand.

a. who
b. whom
c. that
d. in which

7. Some citizens argued that the silly law forbidding women to wear pants in France _____ years ago, while others argued that it didn't matter because it wasn't enforced.
a. was revoked
b. revoked
c. have been revoked
d. should have been revoked

8. This plug is not _____ with that socket. You'll have to get an adapter.
a. compatible
b. comparable
c. composed
d. composition

9. Sometimes I feel life is not worth living and wish I _____ born.
a. were never
b. never
c. had never been
d. have never been

10. The window panes were shattered and the solid concrete buildings looked as if they_____ ripped apart by a giant pair of scissors.
a. had been
b. has been
c. were
d. are

二、Please summarize the following each paragraph about the physical geographical environment in Taiwan in Chinese. (四十分)

【Physical geographical environment】
Weak geology

Taiwan is located on the collision zone between Eurasian plate and Philippine plate. Strong folding, faulting, uplift and frequent earthquake are resulted from continual stress coming from southeast. Schist is distributed in the eastern flank of Central Range and slate, interbedding sandstone - shale occupy widely in the Hsueh Shan (Snow Mt.) and Ali Mt. The new alluvium spreads over the western alluvial plain and coastal plain. The heterogenic lithology is the main factor of differential weathering and erosion.

Steep topography

By the influence of plates collision, Taiwan has been uplifted since early geologic time. Several mountains are paralleled from north to south which occupy one third of the island. The highest peak Yu Shan (Morison Mt.) is rising near 4000 m above sea level. The area ratio between plains, hills and mountains are 3:4:3 (Hsieh et al. 1975). It is obvious that Taiwan is a hilly mountainous island.

Unevenly distributed rainfall

Most of the annual of rainfall 2540 mm in Taiwan comes from typhoon and convection rain. Under the effect of landform and monsoon, the distribution of rainfall is not uniform both in time and space. Generally speaking, the amount of rainfall in mountains is larger than in plains, larger in eastern coast than in western coast. There are 1500-2000 mm in western plain and hills, and more than 3000 mm in mountains. The rainfall concentrates in summer season, accounting for 65% in northern Taiwan. Toward the south, the concentration is increasing, 70-80% in the middle, over 90% in the south. Due to the concentration of the rainfall, the hazard of flooding and drought can occur easily, especially in southern Taiwan.

Frequent earthquake

Taiwan is located in the Circum-Pacific seismic zone. From the historical and instrumental records, Taiwan had 20,000 earthquakes with magnitude > 4.0 from 1604 to 1988 (Cheng et al. 1989). Most of them are distributed in eastern and western Taiwan. Isoseismal maps of the earthquakes with maximum intensity greater than or equal to five show that Hualien, Chiayi and Miaoli are the three most active earthquake areas. Earthquakes either produce a destructive damage directly or cause slope failure indirectly.

*This paragraph is adopted from [Chang, Jui-Chin, (1996), GeoJourna, 38(3)].

三、作文(四十分)

Please write a short essay to clearly define, describe, and explain the natural phenomenon that you are most interested in.