

國立中山大學 102 學年度碩士暨碩士專班招生考試試題

科目名稱：生態學【生科系碩士班甲組】

題號：421002

※本科目依簡章規定「不可以」使用計算機

共 1 頁第 1 頁

I. 解釋名詞，共 40 分

1. Thermal neutral zone (5 分)
2. Autotroph (5 分)
3. Metapopulation (5 分)
4. net primary production (5 分)
5. logistic growth (5 分)
6. realized niche (5 分)
7. secondary succession (5 分)
8. guild (5 分)

II. 問答題，共 60 分

9. Discuss and explain the influences of temperature on **PLANTS OR ANIMALS**. (15 分)
10. What are the major causes of current species extinctions? Why should we be concerned about the current rate of species extinctions? (15 分)
11. Using number of prey as X axis, and number of predators as Y axis, explain graphically the Lotka-Volterra model (or Rosenzweig-MacArthur model) for the predator-prey interactions. (15 分)
12. Explain the equilibrium hypothesis of species-area relationship. (15 分)