

國立中山大學 生物科學系 九十八學年度

博士班 生態學資格考 試題

一、請解釋下列的生態專有名詞，並舉例說明之 (40%，每題 5 分)

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|-----------------------|---|
| 1. Keystone species | 5. CAM plant (crassulacean acid metabolism) |
| 2. Autotroph | 6. Disclimax |
| 3. Pyramid of biomass | 7. Biological magnification |
| 4. Ecological niche | 8. Compensation depth |

二、問答題 (60%)

1. 何謂生物多樣性？請說明其包含的內容及意義？(15%)
2. 何謂污染？請說明其定義及可能發生的原因以及如何用生態學的研究方法與結果作判定？(15%)
3. 請列述全球氣候暖化對環境生態可能之影響。(20%)
4. 下列為不同物種間相互作用型態的專有名詞及說明，請將所附說明之代號 (A~I) 填入最適當空格內。(10%，每個空格 1 分，全答對 10 分)

Type of interaction:

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|---|----------------------|
| () 1. Competition: direct interference type, | () 2. Mutualism, |
| () 3. Predation (including herbivory), | () 4. Neutralism, |
| () 5. Competition: resource use type, | () 6. Parasitism, |
| () 7. Amensalism, | () 8. Commensalism, |
| () 9. Protocooperation. | |

General nature of interaction

- A). Beneficial to population 1, but neutral or of no benefit to population 2.
- B). Population 1 eat population 2 and their body sizes are generally larger than population 2.
- C). Interaction favorable to both and obligatory.
- D). Indirect inhibition when common food or space is in short supply.
- E). Neither population affects the other.
- F). Direct inhibition of each species by the other.
- G). Population 1 inhibited, 2 not affected.
- H). Population 1 eat population 2 and generally smaller than population 2, the host.
- I). Interaction favorable to both but not obligatory.

