



考試科目：普通生物學

系所名稱：日養殖二

1. 答案以橫式由左至右書寫。2. 請依題號順序作答。

解釋名詞：(18%) / 非單字或字詞翻譯

- | | |
|-----------------------|---------------------------|
| 01. negative feedback | 04. pheromone |
| 02. trace elements | 05. decomposer |
| 03. endosymbiosis | 06. antibiotic resistance |

簡答題：(15%)

1. Please distinguish among the three domains of life, and the eukaryotic kingdoms. (5%)
2. Please distinguish among the following types of ecology: (a) organismal, (b) population, (c) community, (d) ecosystem, (e) landscape and (f) biosphere. (5%)
3. Please list the three major threats to biodiversity and give an example of each. (5%)

Biology 問答題：(33%)

1. 何謂自分泌(autocrine)，旁分泌(paracrine)及內分泌(endocrine)。 (3%)
2. 請解釋脊椎動物如何利用由胰臟不同細胞分泌互相拮抗的兩種荷爾蒙(hormones)來維持血糖(blood glucose)的恆定(homeostasis)。 (10%)
3. 請比較海水魚與淡水魚的滲透壓調節(osmoregulation)。 (10%)
4. 請詳述細胞有氧呼吸的三個代謝階段之作用及產出為何? (10%)

名詞解釋：20%

1. RNA splicing
2. cerebrum
3. sensory reception
4. Innate immunity
5. Acquired immunity
6. recombinant DNA
7. karyotype
8. Apical dominance
9. membrane potential
10. Eosinophils

簡答題 14%

請介紹DNA複製的過程