

一、解釋名詞（40%）每題4分

1. Darwinian vs Neo-Darwinian
2. Evolutionary stable strategy (ESS)
3. Kin selection
4. Neutral selection
5. Hardy-Weinberg equilibrium 的假設
6. Adaptive radiation
7. Hitchhiking
8. Co-option
9. Pleiotropic mutation
10. Macroevolution

二、問答題：（60%）（每題10分）

1. 現代人類生活型態為何與原始祖先差異甚遠？演化機制為何？
2. 何謂協同演化(co-evolution)，請列出至少兩個相關領域，並選一個領域闡述相關論壇探討的主題？
3. 請闡述 Group Selection, Individual Selection, Gene Selection 之間的異同。
4. What would Island biogeography predict the species richness of actual islands in terms of size, distance to source of colonists and habitat richness? In this aspect what would you expect the population genetic diversity differences between populations of the same species from mainland and the islands?
5. Is mutation a strong evolutionary force (why or why not?)
6. In order for a “molecular clock” to be accurate, which assumptions need to be made?

試題隨卷繳回