

一、 解釋名詞：(每題 4 分，共 40 分)

1. diffuse competition
2. species-area curve
3. biological control
4. optimal foraging theory
5. minimum viable population
6. secondary production
7. community stability
8. survivorship curves
9. restoration ecology
10. guild

二、 問答題 (每題 10 分，共 60 分)

1. What are 'reciprocal transplants' (or 'reciprocal transplantation experiments')? Why are they so useful in ecological studies?
2. Explain species richness, diversity index, and the rank-abundance diagram and compare what each measures.
3. What is the 'carrying capacity' of a population? Describe where it appears, and why, in (1) S-shaped population growth, and (2) the logistic equation.
4. Explain and compare the 'top-down model' and the 'bottom-up model' of community organization.
5. Define 'dispersal' and 'migration'. What do they have in common and how do they differ?
6. Explain, with examples, the differences between acclimatization (physiological adaptation) and evolutionary adaptation.