

一、解釋名詞 (每題四分，共 40 分)

1. biogeochemical cycle
2. euryhaline
3. competitive exclusion
4. effective population size
5. species-area relationship
6. allelopathy
7. facilitation model of succession
8. Lotka-Volterra models
9. trophic cascade
10. ecological efficiency

二、問答題 (每題 20 分，共 60 分)

1. Of the three types of ecological pyramids (biomass, numbers, and energy flow), which one is always shaped like a pyramid, with the largest amount in the producer trophic level? Why?
2. What is the difference between density-dependent and density-independent population regulation? Explain.
3. How might an ecologist experimentally determine the critical resource level in a system with two resources?