

簡答題 20 題 (每題 5 分)

1. Please briefly introduce the laboratory you like to join in the IONTU, why you want to join the particular lab, and the kind of research you plan to conduct
2. Please distinguish between a population and a community?
3. Please distinguish between commensalism and mutualism?
4. What are the major processes that determine the relative abundance of species in a community?
5. Please define what ecological succession is?
6. Please distinguish between biomass and productivity?
7. What factors principally explain variation in oxygen consumption rates among species?
8. We know that many long-distance swimming fish species follow major current systems. How might climate change affect the feeding success of these migrating species?
9. What are the possible reasons tropical environments are more diverse than those of higher latitudes? How might we test an explanatory hypothesis for these differences?
10. What are the major processes that contribute to human influences on the loss of biodiversity?
11. How might environmental stability have contributed to high species diversity?
12. What factors might make animals in one fishery more vulnerable than others?
13. What is the basis of the concept of maximum sustainable yield? How effective of this concept as a tool in fisheries management?
14. A conservation committee decided to designate a group of subtidal reefs for marine protected areas. What is the value of saving a group of reefs instead of just the largest one?
15. Nutrient input increases primary production, which should support more fish. So why are people upset about increasing sewage input throughout the coastal ocean? How does nutrient enrichment lead to hypoxia (low oxygen condition)?
16. Which marine environments do you think are more vulnerable to pollution: tropical ones or those in high latitudes? Why?
17. Please distinguish between correlation and experimentation in the understanding of the scientific relationship
18. Please describe the ecological hierarchy?
19. What is the primary effect of predation in communities of competing prey species?
20. Fishes often swim in large schools of a single species. Why might this be so?