

BIOLOGY 2: Organisms to Ecosystems

Time Allowed – 1.5 hours

You must answer 3 questions from a choice of 18

1. What sort of factors cause one continent to be more biologically diverse than another?
2. Discuss how biological populations may increase, remain stable, or decrease.
3. How did Darwin arrive at the theory of evolution?
4. Describe how the Earth's geological eras are characterised by different assemblages of fossil organisms.
5. Give some examples of organisms grouped at taxonomic levels such as 'phylum', 'class', 'order', 'family', 'genus' or 'species'.
6. What do you understand by 'biodiversity' and how can it be measured?
7. Discuss the potential and problems of zoos in conservation.
8. Give some examples of courtship displays in wild animals.
9. Explain why micro-organisms are critical in ecological nutrient cycles.
10. Describe the concept of ecological 'succession'.
11. Give examples of what is meant by the term 'symbiosis'.
12. Write an essay on any aspect of either 'marine' or 'freshwater' biology.
13. Describe examples of 'infectious' and 'non-infectious' diseases.
14. Compare vaccination and antibiotics as medical approaches.
15. Write a biological essay on any aspect of the food industry.
16. What can be the biological consequences of an unhealthy lifestyle?
17. Can you give examples of how statistics may be used in biology?
18. Describe a scientific study of an outdoor habitat that you have performed.