

## **BIOLOGY 2: Organisms to Ecosystems**

**Time Allowed – 1.5 hours**

**3 questions should be attempted**

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1. Should it be possible to work out whether the Loch Ness Monster could really exist, using the principles of ecology?
2. Why are there more species near the equator than in temperate regions?
3. What biological problems does pollution cause?
4. Explain the importance of micro-organisms in ecological nutrient cycles.
5. Write an essay on life on the seashore.
6. Discuss mechanisms by which new species arise.
7. What can be the consequences of an unhealthy lifestyle?
8. Is statistics useful for biologists?
9. Review any particular organism or taxonomic group that interests you.
10. What is importance of the 'carrying capacity' in population biology?
11. What were the dinosaurs, and are they really extinct?
12. Write an essay on life in freshwater.
13. Give some examples of 'symbiosis'.
14. Discuss the concept of energy transfer in ecosystems.
15. Write a biological essay on the food industry.
16. Give some examples of endangered species and the problems facing them.
17. Describe a scientific study of an outdoor habitat that you have performed.
18. What is the relationship between kingdoms, phyla, classes, orders and families? Give some examples.