

EVOLUTION

PAST KCSE QUESTIONS ON TOPICS

1. State the difference between Lamarckian and Darwinian theories of evolution
2. Two populations of the same species of birds were separated over a long period of time by an ocean. Both populations initially fed on insects only. Later it was observed that one population fed entirely on fruits and seeds. Although insect were available. Name this type of evolutionary change.
3. Explain why Lamarck's theory of evolution is not accepted by biologists today
4. State three pieces of evidence that support the theory of evolution.(3 marks)
5. state two advantages of natural selection to organisms (2 marks)
6. Give a reason why each of the following is important in the study of evolution
 - (i) Fossils records
 - (ii) Comparative anatomy
7. Describe how natural selection brings about adaptation of a species to its environment
(6 marks)
8. Explain how the process of evolution may result to the formation of new species
9. What is meant by
 - a. organic evolution (1 mark)
 - b. continental drift (1 mark)
10. Explain continental drift as an evidence of evolution (3 marks)
11. (a) What is a test- cross? (2 marks)

(b) Give a reason why organisms become resistant to drugs (1 mark)

12. Distinguish between the following terms

- a. Homologous structures
- b. Analogous structures (4 marks)

13. (a) What is meant by natural selection?

- (b) Explain the role played by mutation in evolution (5 marks)

14. Define the following terms

- a. Hybrid
- b. Hybrid vigour

15. The peppered moth exists in two varieties, which are genetically controlled. The dark variety is found predominantly in industrial cities and the white variety is found predominantly in rural areas. Explain how this pattern of distribution supports the theory of evolution by natural selection (6 marks)

16. Explain what is meant by the following concepts

- a. Special creation (2 marks)
- b. Organic evolution (2 marks)