

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2015

Second Semester

Core Course VI—EVOLUTIONARY BIOLOGY AND ENVIRONMENTAL SCIENCE

(For B.Sc. Biotechnology)

(2013 Admission onwards)

(3) Time : Three Hours

Maximum : 80 Marks

Part A

*Answer all questions.
1 mark each.*

Short Answer questions :

1. What is denitrification ?
2. What are vestigial organs ?
3. What is analogy ?
4. Explain Greenhouse effect.
5. Who proposed Mutation theory ?
6. Name two ecosystem.
7. Explain Neo-Darwinism.
8. What is smog ?
9. Name the enzyme responsible for biological nitrogen fixation.
10. What is grazing food chain.

(10 × 1 = 10)

Part B

*Answer any eight questions.
2 marks each.*

Brief answer questions :

11. Write an account on global warming.
12. Explain ecological Pyramids.
13. Write a note on effect of abiotic components in an ecosystem.
14. Give a note on acid rain and its impact.
15. What is natural selection ?

Turn over

16. Write about prebiotic environment.
17. Explain adaptive radiation.
18. Write about productivity of an ecosystem.
19. Explain causes of soil pollution.
20. Explain Lamarckism.
21. Write an account of food web.
22. Explain Macro and micro evolution.

(8 × 2 = 16)

Part C

*Answer any six questions.
4 marks each.*

Short Essay type questions :

23. Give an account of energy flow in an ecosystem.
24. Write about Miller-Urey Experiment.
25. Explain carbon cycle.
26. Write a note on air pollution.
27. Give an account of evidences of evolution.
28. Explain Darwinian theory of evolution.
29. Give an account of role of mutation in speciation.
30. Explain hazards of nuclear fall out.
31. What is speciation ? Explain human evolution.

(6 × 4 = 24)

Part D

*Answer any two questions.
15 marks each.*

Long Essays :

32. Explain modern theories of evolution.
33. Describe Biogeochemical cycle, with the help of nitrogen cycle.
34. Explain water pollution.
35. Explain components of ecosystem.

(2 × 15 = 30)