N. C Jindal Public School

Assignment-Biology

Ecology

Class XII

1. In a pond there were 40 lotus plants. After a year the number increased to 56. Calculate birth rate of a lotus plant. 1
2. Why pyramid of energy can never be inverted? 1
3. Why do cattle avoid browsing on Calotropis plants? 1
4. What is Allen's rule? 1
5. Lichen is considered a good example of obligate mutualism. Explain. 1
6. Distinguish between primary productivity and secondary productivity 2
7. Write the differences between the seral stage and the climax community during succession. **2**
8. What measures can be adopted in surroundings to decrease the noise pollution? 2
9. What are the advantages of 'Ecosan' ? 2
10. Giving two reasons explain why there is more species biodiversity in tropical latitudes than in temperate ones. 2
11. Mention the major cause of air pollution in metro cities. Write any three ways by which it can be reduced. 2
12. Name the four functional aspects of an ecosystem.
13. What steps have been taken by the Government to reduce pollution in Delhi?
14. What is the condition to dispose off the radioactive waste? **3**
15. Describe the process of succession on a bare rock. 3
16. What function do detritivores play in an ecosystem? Explain the significance of humification and mineralization in a decomposition cycle. 3

17. How do organisms like fungi, zooplanktons and bears overcome the temporary short- lived climatic stressful conditions? Explain. 3

18. Explain the type of interaction in each of the following: **3**

    a. Clown fish living among tentacles of sea anemone.

    b. Smaller barnacles disappeared when Balanus dominated in the coast of Scotland.

    c. Wasp pollinating fig inflorescence.

19. Describe the specific adaptation of xerophytes with respect to root system, stem and leaves. 3

20. (a) Explain with the help of diagram logistic growth model of population.
    (b) How do animals suspend the unfavourable conditions? (3+2)

21. Why herbivores are considered similar to predators in the ecological context Explain. 5

22. Differentiate between the following interspecific interactions in a population: 5
    (i) Mutualism and competition
    (ii) Commensalism and Amensalism

23. Trace the succession of plants on a dry bare rock. 5

24. How does phosphorus cycle differ from carbon cycle? 5

25. Describe the exponential growth model of a population with curve. 5