CBSE Question Paper 2005
Compartment Delhi Set-1
CBSE Class-12 Biology

General Instructions:

1. This question paper consists of four sections A, B, C, and D. Section A contains 5 questions of one mark each. Section B is of 10 questions of two marks each. Section C is of 10 questions of three marks each and Section D is of 3 questions of five marks each.
2. All questions are compulsory.
3. There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and three questions of 5 marks weightage. Attempt only one of the choices in such questions.
4. Question numbers 1 to 5 are to be answered in one word or one sentence each.
5. Question numbers 6 to 15 are to be answered in approximately 20-30 words each.
6. Question numbers 16 to 25 are to be answered in approximately 30-50 words each.
7. Question numbers 26 to 28 are to be answered in approximately 80-120 words each.

SECTION - A

1. Where are the pigments forming the photosynthesis located in the chloroplasts?

2. What does “leg” in leghaemoglobin refer to? Why this pigment is called oxygen-scavenger?

3. Name the category of regeneration, which involves the repattering of the whole body from small fragments. Name one animal in which it occurs.

4. Name the antifreeze compounds that help the fishes living in Antarctica in seawater even at temperature below $0^{\circ}C$.

5. What is tissue-typing in organ transplantation in humans?

SECTION - B

6. What is oxidative decarboxylation of pyruvic acid? When does it occur?

7. A person is suffering from calcium deficiency in spite of taking a calcium rich diet. Explain how this condition may have occurred.

8. What is chloride shift? Explain.

9. How are the two heart sounds produced during cardiac cycle? Which one of these is of longer duration?

10. Mention any two differences between auxetic growth and multiplicative growth.

11. Give the collective term for chemicals such as hyaluronidase and arccosine. Where are they contained? Give the function of any one of them.

12. Name the two basic types of competition found amongst organisms. Which one these is more intense and why?

13. What does the term biodiversity refer to? Mention any two factors which pose threat to biodiversity.

14. What is acne? How acne is considered the commonest problem of almost all adolescents?

15. Define mutation. List the three way in which mutations can arise.

Or

How is mutation breeding carried out for developing crop varieties?

SECTION - C

16. What is thermal stratification in deep water bodies? Mention one advantage of autumn and spring turnover. How are organisms living in temperate takes benefited by it?

17. Which one gas is most abundant out of the four comment green house gases? Discuss the effect of this gas on the growth of plants.

18. What is a transgenic crop? State two advantage of the technique involved in the production of transgenic crop over breeding activities.

19. Enumerate three properties of cancer cells, which distinguish them from normal cells.

20. A sperm has just fertilized human egg in the fallopian tube. Trace the events that the fertilized egg will undergo up to the implantation of the blastocyst in the uterus.

21. Draw a diagram of the L.S. of mature angiosperm (anatropous) ovule. Label any six parts.

Or

Draw a diagram of the transverse section of an angiosperm another. Label any six parts.

22. How are militated axons more efficient than the non-militated axons for the conduction of nerve impulse?

23. Why uricotelism is considered advantageous to the vertebrates that lay shelled eggs?

24. What causes wilting and drooping of leaves during a hot summer after noon? Explain.

25. State three criteria of essentiality of an element in plant nutrition.

SECTION - D

26. Describe the biosynthetic Phase of photosynthesis.

Or

What is oxidative phosphorylation? Explain the same with the help of a flow-chart.

27. List any five hormones secreted by adenohypophysis (anterior pituitary). Mention the principal action of each hormone and its target organ.

Or

Name a gland in humans acting both an endocrine and exocrine; mention the three endocrine secretions from this gland giving two principal actions each secretion.

28. What is meant by Ozone shield? Name two ozone-depleting substances. How the Ozonedepleting substances affect the ozone shield? Write one damaging effect of ozone-depletion on humans and plants respectively.

Or

List any four factors which determine the amount of dissolved oxygen in water. Explain in brief the harmful effects of nitrate, fluoride and arsenic salts in ground water, on humans.