
CBSE SAMPLE PAPER –02 (unsolved)

Class-XI

BIOLOGY (THEORY)

Time: 3 Hrs

MM: 70

General Instructions

1. The question paper comprises of five Sections A, B, C, D and E.
2. All questions are compulsory.
3. There is no overall choice however; internal choice has been provided in one question of 2 marks, one question of 3 marks and all the two questions of five marks category. Only one option in such question is to be attempted.
4. Questions 1 to 5 in section A are very short questions of one mark each. These are to be answered in one word or one sentence each.
5. Questions 6 to 9 in section B are short questions of two marks each. These are to be answered in approximately 20-30 words each.
6. Questions 10 to 20 in section C are questions of three marks each. These are to be answered in approximately 30-50 words each. Question 21 is of 4 marks.
7. Questions 22 to 23 in section D are questions of five marks each. These are to be answered in approximately 80-120 words each.
8. Questions 24 to 26 in section E is based on OTBA of 10 marks.

Section – A

1. What is cytotaxonomy?
2. How is phyllode helpful to a plant?
3. Define totipotency?
4. Name the basic unit of chitin molecule?
5. Which chlorophyll is termed as universal photosynthetic pigment?

Section – B

6. What is peristalsis? How does it help in digestion?
 7. Why are starch and glycogen more suitable than glucose as storage products?
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Or

Where is yellow bone marrow present? What is its fate in case of anemia?

8. What is water potential? Why is it negative in value?
9. Differentiate between parasympathetic and sympathetic nerves?

Section – C

10. How does calcium affect the process of muscle contraction?
11. Explain the main steps in aerobic respiration.
12. Why is posterior pituitary known as storage, releaser centre?
13. What is partial pressure? How does it help in gaseous exchange during respiration?
14. With the help of diagram only depict the events that occur during prophase I of meiotic division.
15. Which parts of the plant produce gibberellins? State two functions of this phytohormones.

Or

Draw a labelled diagram of female reproductive system of a cockroach.

16. Differentiate between absorption spectrum and action spectrum.
 17. What are phospholipids? Briefly discuss their structure, properties and functions.
 18. Name the enzyme for protein digestion in gastric, pancreatic and intestinal juices, substrate they digest, and the product of their action.
 19. Define hygroscopic and capillary waters? Which is not available to plants and why?
 20. Explain the general characters of Reptilia with respect to respiration, excretion and reproduction.
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21. **Prabhakar is a son of a fisherman. He uses to go seashore along with father when he catches fishes using fishing net. Along with fishes, many other creatures comes out of water in net. Prabhakar use to throw them back in sea although his father do not care about it.**
- a. **What values do you find in Prabhakar?**
- b. **Why is use to throw back the other creatures back to sea?**
- c. **Name some species that might comes out of sea in fishing net.**

Section – D

22. Describe the C3 pathway. How it differ from C4 pathway?

Or

- a) Explain the different types of muscular tissues with diagram?
- b) Name the following
- i) Muscular tissues found in heart.
 - ii) Muscular tissue attached with bone.
 - iii) Animal tissues that form our skin
23. What are amino acids? Discuss their types and functions.

Or

Explain the mechanism of breathing in human being with neat suitable diagram.

Section-E (OTBA) Questions

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| 24. | OTBA Question | 2 mark |
| 25. | OTBA Question | 3 mark |
| 26. | OTBA Question | 5 mark |
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