CBSE SAMPLE PAPER – 13 (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. Questions1 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 to26 in section E is based on OTBA of 10 marks.

Section – A

1. What is heterocyst? Give example.
2. Write the floral formula for the family Liliaceae.
3. Draw a graph for effect of change of substrate on enzyme activity.
4. What is the function of goblet cells?
5. Name one cell present in the gastric gland. What does it secrete?

Section – B

6. Write a short note on leg-haemoglobin.
7. Draw the reproductive system of earthworm.

8.

a) Define co-factors.

b) What is glycosidic bond?

Or

How does the position of centromere form the basis of classification of chromosome?

9. Give the classification and nomenclature of enzymesWhat would happen if you forget to add cytokinins to the culture medium of plant tissue culture?

Section – C

10. Give the schematic representation of an overall view of Kreb's cycle.

Or

Why xylem transports is unidirectional and phloem transport is bi-directional?

11. Explain the mechanism of synaptic transmission with the help of diagram.

12. Describe the mechanism of sliding filament theory.

13. How ATP molecules are synthesized through chemiosmotic hypothesis?

14. Describe and expand the terms: FRC, VC and ERV.

15. Describe the arrangement of floral members in relation to their insertion on thalamus.

16.

a) What does algal bloom and red tides signify?

b) Draw the structure of bacteriophage.

17.

a) What is chyme?

b) How bile helps in digestion of fats?

c) How does pepsinogen change into active form?

18. Give the classification and nomenclature of enzymes.

19. What are casparian strips? Give their functions.

20. Identify the phylum for the following species and write one identifying feature for each of them.

    a) Limulus

    b) Hirudinaria

    c) Labeo

    d) Loligo

21. **A snake charmer came to the house and smelled the presence of a cobra which the residents had never seen in the last 10 years. The landlord agreed to allow the man to search, catch and take away with him the snake. Little Jazman disagreed and drove the man away.**

    a) Did Jazman do the right thing? What values did he show?
    b) What importance do snakes have in nature?
    c) Draw a food web showing the place of snakes.

Section – D

1. Describe the process of urine formation in mammals.

    Or

    Describe the digestion of carbohydrates in human alimentary canal. How are the end products absorbed?

2. Draw the schematic diagram of Krebs cycle. Give the role of TCA cycle in living organisms.

    Or

    Explain and give diagrammatic representation of Hatch and Slack pathway

Section-E (OTBA) Questions

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