CBSE SAMPLE PAPER – 01 (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 does identification mean?
2. Define phyllotaxy.
3. Define cell cycle.
4. Where is electron transport system operative in mitochondria?
5. What name is given to functional unit of kidney?

Section – B

6. How is a nerve impulse conducted along a non- myelinated nerve fibre.
7. Write a note on triglycerides.

Or

Explain haplontic and diplontic life cycles by giving examples.

8. What are Biomolecules?
9. Differentiate hyperglycemia and hypoglycemia.

Section – C

10. Enumerate the peculiar features that you find in phylum chordata.
11. What was Van Niel's experiment? Give the equation of photosynthesis given by him
12. What are the muscle tissues? What are the three types of muscles found in human beings?
13. What are ERV and IRV? Give various steps involves in respiration.
14. Describe the process of crossing over. What is its significance?
15. Describe the structure of chloroplast.

Or

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

16. Describe PSI and PSII
17. Describe the three types of spores formed by asexual reproduction in fung
18. What is systemic circulation? Describe its importance. Why are the walls of the ventricle more muscular than the walls of atria?
19. Explain the initiation of muscle contraction. What is the role of sacroplasmic reticulum, myosin head and F-Actin during contraction in striated muscles?
20. Describe the process of inspiration under normal conditions.
21. **Ramesh was rushed to a nearby hospital after an accident which caused a lot of blood loss. The hospital failed to supply O negative blood for transfusion. Abdul was attending a patient come to know about the situation and agreed to donate blood being the same blood group. Ramesh's mother initially refused but was later convinced by her daughter.**

a. What values do you find in Abdul?

b. Why O positive blood can't be transfused to Ramesh?

c. What is the basis of blood grouping?

Section – D

22. Explain the system of ETS and oxidative phosphorylation.

Or

a) Which one of the plant growth regulator would you use, if you are asked to:

i) Induce rooting in a twig

ii) Quick ripening of a fruit

iii) Delay in leaf senescence

iv) Induce immediate stomatal closure in leaves

v) Increase length of a dwarf plant

b) Define photoperiodism.

23. Draw a labeled diagram of the detailed structure of a nephron.

Or

Write a note on two types of simple tissues with neat diagram.

Section-E (OTBA) Questions

24. OTBA Question 2 mark

25. OTBA Question 3 mark

26. OTBA Question 5 mark