



2-3-2015	Std. XI C	BIOLOGY	Time : 3 hrs.	Marks : 70
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Instructions :

1. All questions are compulsory.
2. The question paper consists of five sections A,B,C, D and E.
3. Section A contains 8 questions of 1 mark each. Section B contains 10 questions of 2 marks each. Section C contains 9 question of 3 marks each. Section D contains 1 question of 5 marks. Section E is OTBA of 10 marks (2 question of 5 marks each). Wherever necessary, the diagrams should be drawn.

SECTION-A

(1×8=8)

1. Define the term dikaryon.
2. Name a free-living and a parasitic platyhelminthes.
3. Name the type of epithelium which lines the fallopian tubes.
4. Why is cockroach called urecotelic?
5. Name the different types of lysosomes.
6. State the major chemical constituents of chromosomes. Which one of them carries genetic information?
7. Define Vernalisation.
8. How do red muscles perform slow and sustained contractions for prolonged periods without fatigue.

SECTION-B

(2×10=20)

9. Distinguish between Vasopression and Oxytocin.
10. Why is tadpole ammonotelic and frog ureotelic.
11. What are the basic categories of flowering response of angiosperms, in response to photoperiod?
12. Distinguish between anatomy of leaf of C₃ plants and anatomy of leaf of C₄ plants.
13. Mention the factors affecting the rate of transpiration.
14. Write a short note on toxicity of micronutrients.
15. How does liver serve both as digestive as well as excretory organ?
16. Phylloclades and cladode both are aerial modification of the stem. Justify with examples.
17. Distinguish between bone and cartilage.
18. Mention the characteristic features of class-Chondrichthyes.

SECTION-C

(3×9=27)

19. Explain the life cycle of fern.
20. Give a comparative account of classes of Kingdom Fungi under the following:
(a) Mode of nutrition (b) Mode of reproduction
21. Draw the alimentary canal of cockroach.
22. Define the following terms :- (Draw diagrams also)
(a) Hypogynous flower (b) E...

23. Enumerate the different factors which influence the action of enzymes.

OR

Explain the structure of DNA molecule.

24. Describe crossing over and mention its significance.
25. What is the difference between primary, secondary and tertiary structure of proteins?
26. What is Rh factor? What will happen if Rh negative mother has Rh positive child in her womb.
27. Explain the process of transmission of a nerve impulse across a chemical synapse.

SECTION-D

(5×1=5)

Explain non-cyclic photophosphorylation and cyclic photophosphorylation.

OR

Explain C₃ and C₄ cycle of dark reaction.

2 questions of OTBA

(5×2=10)

1. How will shifting the focus from guilt and indignation because of degrading environmental quality to successful restorative efforts, influence our society positively in improving the quality of our environment? Write down the ways in which restoration of mangrove forests will have an impact on our environment and livelihood. (5)
2. Do you think celebrating, days like 'World Environment Day', World Sparrow Day' etc. are enough to generate awareness and encourage youngsters to be a part of the Change, which the environmental enthusiasts want to see? Suggest some measures to support your answers.
