



- i) This question paper consists of four parts A, B, C and D. Part D consists of two parts, Section-1 and Section-II.
- ii) All the parts are compulsory.
- iii) Draw the diagrams whenever necessary. Unlabelled diagrams or illustrations do not attract any marks.

**Part-A**

Answer the following questions in **one word or one sentence** each:

**10x1=10**

1. Name the first cervical vertebrae.
2. "S.A node is pacemaker of the heart" Give reason.
3. Name the source of colchicine.
4. Name the algal component of Lichen.
5. What is Triploblastic?
6. What is the purpose of gemma?
7. What is a phylloclade?
8. What are Thylakoids?
9. When is the rate of transport across the membrane maximum during facilitated diffusion?
10. What is the function of amyloplast?

**Part-B**

Answer any **FIVE** of the following questions in **3-5 sentences** each, wherever applicable: **5x2=10**

11. List four characters of cyanobacteria.
12. Differentiate between Chlorosis and Necrosis.
13. a) Why are Rhodophyceae called red algae?  
b) Name the major storage food in Phaeophyceae.
14. Differentiate between root hairs and trichome.
15. a) Give an example of homopolysaccharide and heteropolysaccharide.  
b) What are the components of nucleotides?
16. Draw a diagram of a typical set up of nutrient solution culture?
17. Differentiate between Racemose and Cymose inflorescence.

**Part-C**

Answer any **FIVE** of the following questions in **40-80 words** each, wherever applicable: **5x3=15**

18. Explain the process of Fat digestion and absorption in alimentary canal.
19. Write salient features of phylum Aschelminthes.
20. Write the schematic representations of Non cyclic photophosphorylation explain briefly.
21. Draw a neat schematic diagram of Calvin cycle.
22. Write the taxonomic categories of Mango
23. Write a note on digestive system of Earthworm.

24. Write a short note on factors affecting enzyme action.

**Part- D**

**Section-I**

**Answer any FOUR the following questions in 200-300 words each, wherever applicable:4x5=20**

25. What is an aminoacid? Write a note on general properties of aminoacid.

26. List out the different types of hormones released by Pituitary gland.

27. Give five important applications of Auxins in plants.

28. Describe mitochondria with a neat labeled diagram.

29. Explain briefly the stages of Prophase I in Meiosis I

30. Write notes on muscular tissue.

**Section-II**

**Answer any THREE of the following questions in 200-250 words each, wherever applicable:3x5=15**

31. With a neat labelled diagram explain the structure and function of different parts of eye?

32. Differentiate between chondrichthyes and osteichthyes.

33. Give the schematic representation of krebs cycle.

34. Explain briefly types of permanent tissues.

35. What is placentation? Explain the different types of it with diagrams.

36. List any six important features of family Solanaceae. Mention two medicinally important plants of Solanaceae. (3+2)

37. Describe the experiment that involves unequal transpiration.

\*\*\*\*\*