

MODEL QUESTION PAPER-1
FOR REDUCED SYLLABUS 2020-21
I PUC
BIOLOGY

Time: 3 ¼ hours

[Total No. of questions: 37]

Max.Marks: 70

General Instructions:

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

PART-A

I. Answer the following in A WORD or A SENTENCE each: (10x1=10)

1. Define metabolism.
2. Name the non-chordate phylum whose few members have the ability to fly.
3. What is aestivation?
4. Why does enzyme activity decrease at higher temperature?
5. Where are 70S type of ribosomes found in eukaryotic cells?
6. Which technique is used for the separation of leaf pigments?
7. Sino Atrial Node is known as the pacemaker of the heart. Justify.
8. What is fascia?
9. Name the granular bodies found in the cell body of neurons.
10. An ovarian hormone is known to induce changes in the secondary sex organs of human females to prepare for anticipated pregnancy. Name this hormone.

PART- B

II. Answer ANY FIVE of the following in 3-5 sentences each, wherever applicable: (5 x 2 = 10)

11. Write any two commercial uses of algae.
12. Define the following terms:
i) Epiphyllous stamens ii) Staminode
13. What are the twin characters of growth?
14. Give the suitable technical term to denote the following floral characters:
i) Stamens united into one bunch
ii) Carpels of a flower are fused
15. Write any two differences between primary and secondary metabolites.
16. Name any two synthetic auxins.
17. Distinguish between Inspiratory Reserve Volume (IRV) and Expiratory Reserve Volume (ERV).
18. What is myogenic heart? Give one example.

PART-C

III. Answer ANY FIVE of the following in 40-80 words each, wherever applicable: (5x3 = 15)

19. Write a note on the steps involved in sexual cycle of fungi.
20. There has been an increase in the number of chambers in heart during the evolution of vertebrates. Give the names of the classes of vertebrates having two, three and four chambered heart, respectively.
21. Write a note on adipose tissue.
22. What are the three distinct components of a nucleotide?
23. What would be expected to happen if,
i) Gibberellic acid is applied to sugarcane?
ii) Ethephon is applied to Cucumber plants?

- iii) You forget to add cytokinin to culture medium?
24. List any three factors that influence the formation of oxyhaemoglobin.
25. Name any three disorders of the circulatory system in humans.
26. Explain the structure of a meromyosin.

PART-D
SECTION-I

IV. Answer ANY FOUR of the following in 200-250 words each, wherever applicable: (4 x5=20)

27. Enumerate any five characteristic features of Gymnosperms.
28. Write any five differences between Chondrichthyes and Osteichthyes.
29. Distinguish between skeletal muscle and cardiac muscle with suitable diagrams.
30. Name the cell organelles in which following structures are found:
- i) Cisternae
 - ii) Cristae
 - iii) Thylakoids
 - iv) Nucleolus
 - v) Tonoplast
31. Draw a neat labelled diagram of a typical animal cell.
32. Explain Prophase and Metaphase stages of Mitosis division.

SECTION-II

V. Answer ANY THREE of the following in 200-250 words each, wherever applicable:(3 x5= 15)

33. Give the schematic representation of Calvin cycle.
34. What is respiration? Differentiate between Alcoholic fermentation and Lactic acid fermentation.
35. Glomerular filtration is considered as a process of ultrafiltration. Explain.
36. i) List out the functions of hypothalamus.
- ii) Define the following terms:
- a. Synapse
 - b. Nodes of Ranvier
 - c. Pia mater
37. Name the endocrine gland in which the following hormones are synthesized. Write one function for each hormone:
- i. Melatonin
 - ii. Glucagon
 - iii. Thyrocalcitonin
 - iv. Progesterone
 - v. Glucocorticoids
