



JAIN COLLEGE

463/465, 18th Main Road, SS Royal, 80 Feet Road, Rajarajeshwari Nagar,
Bangalore - 560 098

Date:

SUBJECT: BIOLOGY

**I PUC
Mock paper**

Timings Allowed: 3 Hrs 15Minutes

Total Marks: 70

GENERAL INSTRUCTIONS:

- **ALL PARTS ARE COMPULSORY.**
- **MENTION CORRECT MAIN AND QUESTION NUMBERS.**
- **DRAW DIAGRAMS WHEREVER NECESSARY. UNLABELLED DIAGRAMS DO NOT ATTRACT ANY MARKS.**

I. ANSWER THE FOLLOWING IN ONE WORD OR ONE SENTENCE EACH: 1X10=10

1. What is the basic unit of classification?
2. Where does electron transport system occur in mitochondria?
3. What is the importance of epiglottis?
4. Define metabolism.
5. What are endoblasts?
6. Name the hormones secreted by kidney.
7. What is the function of phloem companion cells?
8. Define water potential.
9. Name the hormone responsible for apical dominance.
10. Name any two stem modifications for vegetative propagation.

II. ANSWER ANY FIVE OF THE FOLLOWING IN ABOUT 3-5 SENTENCES EACH: 5X2=10

11. What is Kranz anatomy? Give an example of a plant having the same.
12. Name the bones in the middle ear.
13. Mention any two functions of Golgi apparatus.
14. Which group of fungi are called 'fungi imperfectii' and why?
15. Differentiate between Spike and Spadix inflorescence.
16. Define Tidal Volume and Residual Volume.
17. Classify phylum Coelenterata with an examples.
18. Name two kinds of contractile proteins found in myofibrils.

III. ANSWER ANY FIVE OF THE FOLLOWING IN ABOUT 40-80 WORDS EACH: 5X3=15

19. Differentiate between hypothyroidism and hyperthyroidism.
20. Explain the components of blood.
21. What is a flower? Describe the parts of a typical angiosperm flower.
22. Write a schematic representation of non-cyclic photophosphorylation.
23. Write notes on:
 - a. Physiological effects of Auxin
 - b. Protein energy malnutrition

24. What is cell cycle? Briefly describe the stages of cell cycle.

25. Define:

- a. Endocrine gland
- b. Plasmolysis
- c. Zygomorphic flower

26. Describe the ways by which root layers absorb and transport water

IV. ANSWER ANY FOUR OF THE FOLLOWING IN ABOUT 200-250 WORDS EACH: 4X5=20

27. Classify kingdom Protista with one example for each class.

28. Describe the major types of simple epithelial tissue with labelled diagrams.

29. Enumerate the chromosomal events during prophase-I of meiosis –I

30. Explain the various factors that affect photosynthesis.

31. Explain the classification of proteins with examples.

32. (a) What is photoperiodism? What is its significance? [3]

(b) Explain sigmoid growth curve [2]

V. ANSWER ANY THREE OF THE FOLLOWING IN ABOUT 200- 250 WORDS EACH: 3X5=15

33. Explain mass flow hypothesis on the translocation of solutes in plants.

34. Describe the fluid mosaic model of plasma membrane.

35. With a neat labelled diagram describe the structure of a multipolar myelinated neuron.

36. With a schematic representation explain Krebs's cycle.

37. (a) Write any two differences between skeletal and visceral muscles [2]

(b) Describe the different types of joints in human body [3]
