



JAIN COLLEGE

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

Date: Dec 2017

SUBJECT: BIOLOGY

**I PUC
Mock Examination**

Timings Allowed: 3Hrs.

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 cnidoblasts?
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 THE FOLLOWING IN ABOUT 2-5 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 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. Mention the three steps of urine formation
23. Classify the plastids based on the types of pigment
24. What is cell cycle? Briefly describe the stages of cell cycle.
25. Define:
 - a. Endocrine gland
 - b. Plasmolysis
 - c. Zygomorphic flower
26. Name the three types of joints

IV. ANSWER 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 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 structure of stomatal apparatus in dicot plants
35. With a neat labelled diagram describe the structure of a chloroplast.
36. With a schematic representation explain Kreb's cycle.
37. Schematically represent Nitrogen cycle and explain

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