

**DISTRICT LEVEL I PUC ANNUAL EXAMINATION, FEB - 2020**

Time: 3 Hrs. 15 Mins.

Sub: BIOLOGY (36)

Max. Marks: 70

**General Instructions:**

- (i) This question paper consists of four parts A, B, C and D. Part D consists of two parts, Section I & 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 ALL the following questions in one word or in one sentence each:

10×1=10

1. Define the term genus.
2. Mention any one example for basidiomycetes.
3. Define phyllotaxy. -
4. Expand ATP. -
5. What do you mean by translocation? -
6. Define imbibition. -
7. What is mycorrhiza?
8. Name the technique of growing plants in a nutrient solution. -
9. Name the body part affected in human during jaundice disorder. -
10. Write the name of the sockets of the skull where our paired eyes located.

**PART – B**II. Answer any FIVE of the following questions in 3-5 sentences each, wherever applicable:

5 × 2 = 10

11. Write any two characteristics exhibited by living organisms. -
12. Differentiate between gametophyte and sporophyte.
13. What are acoelomate animals? Mention the names of the phylum having acoelomate animals. -
14. Draw a neat labelled diagram of stomatal apparatus. -
15. What are bulliform cells? Mention its function.
16. Differentiate between anabolic and catabolic pathways.
17. What do you mean by denitrification? Name the microbe involved in the process.
18. What do you mean by diphyodont dentition? Write the dental formula in adult human. -

**PART - C**

III. Answer any FIVE of the following questions in 40-80 words each, wherever applicable:

5 × 3 = 15

19. Write any three important characteristics of prokaryotic cell.
20. What are biomolecules? Give any two examples.
21. Describe three phases taking place during interphase.
22. Write the correct pathway of water movement in the root.
23. Mention at least one function of the following essential nutrient elements in plants  
(a) Nitrogen (b) Phosphorus (c) Calcium.
24. Draw a neat labelled diagram of nephron.
25. (a) Name the protein found in the light and dark bands of myofibril respectively. [2M]  
(b) Write the symptom of Arthritis disorder. <https://www.karnatakaboard.com> [1M]
26. Write a short notes on the functions of the following hormones: (a) Thymosins (b) Insulin  
(c) Progesterone

**PART - D**

**SECTION - I**

IV. Answer any FOUR of the following questions in 200-250 words each, wherever applicable:

4 × 5 = 20

27. Describe the important characteristics of gymnosperms.
28. Match the following animals to their respective phylum or class

Animal	Phylum / Class
(a) Sycon	(1) Amphibian
(b) Frog	(2) Echinodermata
(c) Tape worm	(3) Mollusca
(d) Octopus	(4) Porifera
(e) Starfish	(5) Platyhelminthes

29. Draw a neat labelled diagram of alimentary canal of cockroach.
30. State Blackman's laws of limiting factor and explain four factors affecting on photosynthesis.
31. List five main applications of auxin.
32. (a) Mention the functions of (i) RBC (Red Blood Cell) (ii) Eosinophils (iii) Platelets. [3M]  
(b) Differentiate between open and closed circulatory system. [2M]

**SECTION - II**

V. Answer any THREE of the following questions in 200-250 words each, wherever applicable:

3 × 5 = 15

33. What is a flower? Describe the floral parts of a typical angiosperm flower.
34. Mention atleast one function of the following cell organelles: (a) Plasma membrane  
(b) Cell wall (c) Golgi apparatus (d) Mitochondria (e) Chloroplast
35. Give a schematic representation of glycolysis.
36. Draw a neat labelled diagram of human respiratory system.
37. Briefly describe the structure of human brain.