

<b>Course:</b>	I PUC	<b>Subject:</b>	Biology
<b>Max. Marks:</b>	70	<b>Duration:</b>	3:15 hrs.

**General instructions**

- The question paper consists of four parts A,B,C and D
- All parts are compulsory
- Draw diagrams wherever necessary. Unlabelled diagrams do not attract any marks

**PART A**

**I Answer the following question in one word or one sentence each: 10 × 1=10**

1. What is Necrosis?
2. Why is calvin cycle also called C<sub>3</sub> pathway?
3. What is Cytokinesis?
4. Banana is a parthenocarpic fruit ? Why
5. What is the function of statocyst?
6. What is hyperglycemic factor?
7. What is Key?
8. Name the living mechanical tissue.
9. What is Hydroponics?
10. Name the region of vertebrate eye where optic nerve passes out of the retina.

**Part B**

**II Answer any five of the following questions in 3 to 5 sentences each where ever applicable 5 x2=10**

- 11 Leg-haemoglobin acts as an oxygen scavenger. Justify the statement.
12. Draw neat labelled diagram of stomata.
13. Assign the following animals to their respective phyla:  
a) Leech      b) Honey bee      c) Round worm      d) Octopus
14. Define:      a) Tidal volume      b) Residual volume.
15. Write any four characters of gymnosperms with examples.
16. List out the functions of proteins.
17. Name the four metabolic wastes produced by organisms.
18. Distinguish between de-differentiation and re-differentiation.

**PART C**

**III Answer any five of the following questions in 100 - 150 words each 5×3=15**

19. Explain criterias for considering an element as essential.
20. Write the general characters of class Aves.
21. What is systemic circulation? Write the pathway of systemic circulation diagrammatically.
22. Mention any three differences between non-chordates and chordates.
23. Schematically explain haplo-diplontic life cycle.
24. What is centromere? Mention the types based on position of centromere.
25. a) What are annual rings?  
b) Differentiate between spring wood and autumn wood.
26. Write a note on Actin.

**Part D**

**Section 1**

**IV Answer any four of the following questions in 200 to 250 words each wherever applicable**

**4×5=20**

27. Write the schematic representation of citric acid cycle.
28. a) What is vernalization?  
b) Write the physiological function, agricultural and horticultural application of cytokinin.
29. Explain prophase I of meiosis?
30. Briefly describe the factors affecting enzyme activity?
31. Draw a neat labelled diagram of L.S of human kidney and explain.
32. Explain the reproductive system of earthworm with labelled diagram.

**V Answer any three of the following questions in 200 to 250 each wherever applicable 3×5=15**

33. Explain Hatch and Slack pathway.
34. Draw a neat labelled diagram of sagittal section of human brain.
35. Name any one hormone secreted by the following glands.  
1) Thyroid 2) Testes 3) Adrenal 4) Thymus gland 5) Pancreas.
36. What is aestivation? Explain the types with examples.
37. a) Name the formed elements of blood.  
b) Write a note on Erythroblastosis foetalis.

\*\*\*\*\*

**KARNATAKA BOARD 1<sup>st</sup> PUC MODEL PAPER – SET 2**  
**BIOLOGY**

