

## FIRST PUC ANNUAL EXAMINATION – 2018

Time: 3-15 hours

Max Marks: 70

No.of Pages: 02

**BIOLOGY (96)**

Total No.of Ques.: 37

- 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 do not attract any marks.

**PART -A**

Answer the following questions in one word or in a sentence each : 10x1=10

- 1) Expand ICBN
- 2) Name any one taxonomical aid.
- 3) Mention the function of pneumatophore.
- 4) What is epidermis?
- 5) In which stage of Meiosis I does synapsis occurs?
- 6) What is Guttation?
- 7) Why are root nodules pink in colour?
- 8) Give the other name for white blood cells.
- 9) Where is the tricuspid valve found?
- 10) Which hormone supports pregnancy?

**PART -B**

Answer any FIVE of the following questions in 3 to 5 sentences each wherever applicable : 5x2=10

- 11) Write any two rules of binomial nomenclature.
- 12) Name the algal and fungal component of Lichens.
- 13) Differentiate between coelomate animals and Pseudocoelomate animals.
- 14) Which is the fluid connective tissue? Mention its function.
- 15) What are proteins? Name the bond present in the proteins.
- 16) Give the diagrammatic presentation of a standard ECG.
- 17) List out the differences between skeletal muscles and Cardiac muscles.
- 18) Mention any four bones of lower limb of human beings.

**PART-C**

Answer any FIVE of the following questions in about 40-80 words each wherever applicable . 5x3=15

- 19) Define the following terms with regard to flower  
a] Actinomorphic b] Pentamerous c] Hypogynous.
- 20) What is a vascular bundle? Name any two types of Vascular bundles.
- 21) State the differences between Animal cell and Plant cell.
- 22) Classify the enzymes based on the types of reactions they catalyse.
- 23) Give the diagrammatic view of cell cycle.
- 24) Define Oxygen dissociation curve. How is it useful?

- 25) Explain the following terms  
a) Uremia b) Renal Calculi c) Micturition
- 26) Name the glands which secrete the following hormones .  
a) Thyroxine b) Melatonin c) Insulin

**PART-D**

**Section-I**

**Answer any FOUR of the following questions in about 200-250 words each**

**wherever applicable :**

**4x5=20**

- 27) Enumerate the salient features of bryophytes .
- 28) List out the differences between class- Chondrichthyes and class Osteichthyes.
- 29) Draw a neat labelled diagram of external features of cockroach .
- 30) a) What is a Centromere?  
b) Classify the different types of chromosomes based on the position of centromere .
- 31) Explain with the neat labelled diagram of the structure of Stomata .
- 32) Explain the formation of root nodules in legumes.

**Section-II**

**Answer any THREE of the following questions in about 200-250 words each**

**wherever applicable :**

**3x5=15**

- 33) a) Explain Kranz Anatomy.  
b) Give an example of a plant exhibiting Kranz Anatomy.
- 34) Give the schematic representation of Glycolysis .
- 35) Write the physiological effects of the following plant hormones  
a) Auxins b) Ethylene
- 36) Draw a neat labelled diagram of human digestive system
- 37) Describe reflex action and reflex arc.

