

Biology

Preliminary Examination

SECTION A

Q. Choose the correct answer.

(12 marks)

- Hepatic portal veins carries food for _____.
a. Stomach b. Lungs c. Liver d. Heart
- _____ is also called as the post office of the cell.
a. Golgi bodies b. Nucleus c. Mitochondria d. Vacuole
- The formula of lactic acid is _____.
a. C_2H_5OH b. $C_6H_{22}O_{11}$ c. $C_3H_6O_3$ d. $C_6H_{12}O_6$
- Fabales is the _____ of pea.
a. Order b. Kingdom c. Phylum d. Species
- Enzymes are _____.
a. Lipid in nature b. Steroid in nature c. Protein in nature d. Carbohydrate in nature
- Night blindness, eye infection and respiratory infections are due to the deficiency of
a. Vitamin A b. Vitamin B c. Vitamin C d. Vitamin D
- Diseases like AIDS, polio and Tobacco Mosaic is caused by _____.
a. Fungi b. Virus c. Mosquito d. Insects
- Cell organelle found in animal cell and helps in intracellular digestion is _____.
a. Lysosome b. Ribosome c. Mitochondria d. Golgi apparatus
- By volume, the whole blood consists of _____.
a. 55% plasma b. 65% plasma c. 75% plasma d. 90% plasma
- When a heart beats very fast, this condition is called _____.
a. Angina b. Bradycardia c. Heart attack d. Tachycardia
- It contains enzymes for photosynthesis.
a. Granum b. Stroma c. Thylakoid d. Lamella
- In Amoeba, the inner part of cytoplasm is _____.
a. Ectoplasm b. Protoplasm c. Endoplasm d. Pseudopodia

SECTION B



Q. Attempt any 8 questions from this section. Each carry equal marks.

(24 marks)

1. Define any 6 branches of biology.
2. What are vitamins? Write about different types of Vitamins.
3. Differentiate any 1:
 - i. Plant cell and animal cell
 - ii. Photosynthesis and respiration
4. What are the aims and principals of classification? **OR** Write important postulates of cell theory.
5. Draw neat and labelled diagram of cardiac OR skeletal muscle.
6. What are the functions of corpuscles?
7. Write significance of Mitosis and Meiosis.
8. Write a short note on any one of the following:
 - a. Mitochondria
 - b. Nucleus
 - c. Plastid
9. Explain the role of ATP as energy currency in living organism.
10. Write three deficiency symptoms of Iron and Calcium.
11. Define any 3 of the following.
 - a. Plasmolysis
 - b. Exocytosis
 - c. Magnification
 - d. Biometry
 - e. Necrosis
12. Classify plant tissues with the help of a flowchart.
13. Define reduction division. Name different stages of prophase-I of meiosis.
14. Write a short account on Liver and its functions. **OR** What are the causes and effects of Leukemia.

SECTION C

Q. Attempt any 4 questions from this section.

(24 marks)

1. Define Autotrophic and Heterotrophic nutrition. Explain different methods of heterotrophic nutrition.
2. Explain the mechanism of Meiosis cycle along with diagrams
3. What are factors affecting the enzyme activity? Write 5 characteristics of enzymes.

OR

What is transpiration? Where does it occur? Explain factors affecting the rate of transpiration.

4. Write detailed note on Epithelial tissues. (Diagram is required)

OR

What is blood? Explain the composition of RBCs and WBCs with their functions.

5. Draw a neat and labelled diagram of Human heart

OR

What is digestion? Explain digestion in Stomach and Small Intestine