

Code: A-B223113-A

# I SEMESTER EXAM - 2024-25

3 x 360

Std.: XI

Sub: Biology

Marks: 50

Date:

Roll No.: \_\_\_\_\_

Time: 2½ hrs

## General Instructions :

The question paper is divided into four sections.

1. **Section A :** Q.No.1 contains Seven multiple choice type of questions carrying one mark each.
  - i) In case of MCQ, evaluation will be done for first attempt only.  
Q.No.2 contains Seven very short answers type of questions carrying one mark each.
2. **Section B :** Q.No.3 to Q.No.13 are short answer type of questions carrying two marks each.
3. **Section C :** Q.No.14 to Q.No.19 are short answer type of questions carrying three marks each.
4. **Section D :** Q.No.20 to Q.No.23 are long answer type of questions carrying four marks each.
5. Begin the answer of each section on a new page.

## Section - A

### Q.1 Select and Write the correct answer. (7)

- i) Which RNA is present in more amount in the cell ?
  - a) m-RNA
  - b) t-RNA
  - c) r-RNA
  - d) not certain
- ii) The vascular bundles in a dicot stem are:
  - a) collateral and open
  - b) Radial
  - c) Bicollateral and open
  - d) Collateral and closed
- iii) When the flower is epigynous, the ovary is said to be \_\_\_\_\_.
  - a) Inferior
  - b) Superior
  - c) Semi-inferior
  - d) Semi-Superior
- iv) Synapsis is pairing of \_\_\_\_\_.
  - a) Any two chromosomes
  - b) Non homologous chromosomes
  - c) Sister chromatids
  - d) Homologous chromosomes
- v) Blood filled cavity in cockroach is called \_\_\_\_\_.
  - a) Hemocoel
  - b) Paracoel
  - c) Spongocoel
  - d) Metacoel
- vi) When all sepals are united, the condition is called as \_\_\_\_\_.
  - a) Polysepalous
  - b) Gamosepalous
  - c) Polypetalous
  - d) Gamopetalous
- vii) The statement in a Key is called
  - a) Herbarium
  - b) Biodiversity
  - c) Museum
  - d) Lead

### Q.2 Answer the following questions. (7)

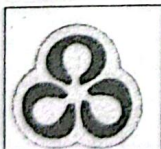
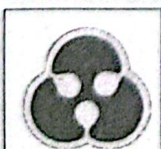
- i) What is a herbarium ?
- ii) Define Inflorescence.
- iii) What are plastids ?
- iv) How many chambers are present in heart of cockroach ?
- v) Define flower.
- vi) What is polyarch condition of roots ?
- vii) Give the role of chitin in trachea of cockroach.

**Section - B****Attempt any Eight of the following questions.****(16)**

- Q.3 Sketch and label : Clover leaf model of t-RNA.
- Q.4 How is the arrangement of vascular bundles in dicot and monocot stem ?
- Q.5 Mitochondria are power house of the cell. Given reasons.
- Q.6 Explain the following terminologies related to flower.  
a) Complete flower      b) Neuter flower
- Q.7 What is myoglobin ? What is its function ?
- Q.8 What is Apoptosis ? Write its significance.
- Q.9 "Lysosomes are called suicide bags of the cell". Why ?
- Q.10 Differentiate between Mitosis and Meiosis.
- Q.11 Define the term Adelphy. Give three types of stamens based on adelphy.
- Q.12 Compare pith in dicot and monocot roots.
- Q.13 Give the systematic position of Cockroach with respect to its phylum and class with reason.

**Section - C****Attempt any Four of the following questions.****(12)**

- Q.14 Enlist any three basic principles of life.
- Q.15 Sketch and label : Structure of multipolar neuron.
- Q.16 Distinguish between dicot and monocot leaf on the basis of following characters :  
a) Stomata      b) Venation      c) Mesophyll cells
- Q.17 Cockroaches are said to be omnipresent, nocturnal and cursorial. Give reason.
- Q.18 Name the following :  
a) Smallest cell : \_\_\_\_\_  
b) Longest cell in animals : \_\_\_\_\_  
c) Largest cell : \_\_\_\_\_
- Q.19 Match the following :

**Diagram****Placentation**

Axile

Parietal

Marginal

**Section - D****Attempt any Two of the following questions :****(8)**

- Q.20 Distinguish between DNA and RNA.
- Q.21 What is cell division ? Mention the types of cell division.
- Q.22 Differentiate between Medullated and Non-Medullated nerve fibre.
- Q.23 Label the parts A, B, C, D in the given diagram.

