Code: A-B223113-M	**I SEMESTER EXAM - 2024-25**	3 x 580
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 . 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 for the following multiple choice type of questions. (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) Spongocel d) Metacoel

vi) Spriacle is a part of _____ system of cockroach.
   a) Circulatory b) Respiratory c) Reproductive d) Nervous

vii) When all sepals are united, the condition is called as _____
   a) Polysepalous b) Gamosepalous c) Polypetalous d) Gamopetalous

Q.2 Answer the following questions. (7)

i) Name the taxonomical aid used for classification of plants and animals which is based on contrasting characters.
ii) Define Inflorescence.
iii) What are plastids ?
iv) How many chambers are present in heart of cockroach ?
v) Give the role of chitin in trachea of cockroach.
vi) Define Flower.
vii) What is polyarch condition of roots ?

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 Explain the following terminologies related to flower.

a) Complete flower b) Neuter flower

Q.6 What is myoglobin ? What is its function ?

Q.7 Explain the cytoskeleton system of a cell.

Q.8 What is Apoptosis ? Write its significance.

Q.9 Identify the cell structure from its description below:

a) Manufactures Ribosomes -

b) Manufactures ATP in animal and plant cells -

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)**

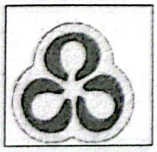
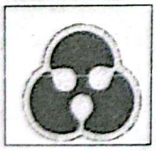
Q.14 Enlist any three basic principles of life.

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 Match the following :

Diagram	**Placentation**
	Axile
	Parietal
	Marginal

Q.18 Cockroaches are said to be omnipresent, nocturnal and cursorial. Give reason.

Q.19 Name the following :

a) Smallest cell : _____

b) Longest cell in animals : _____

c) Largest cell : _____

Section - D

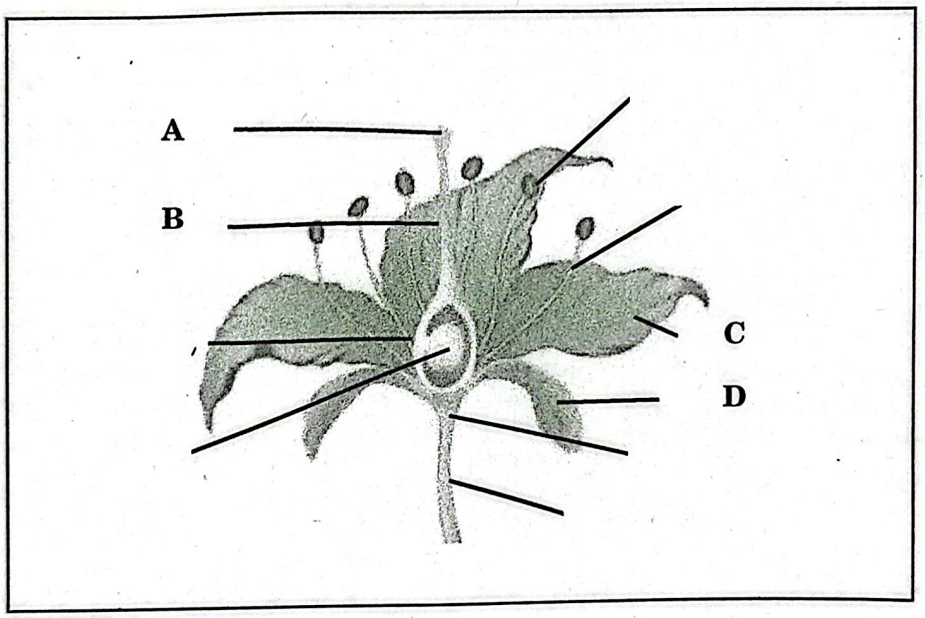
Attempt any Two of the following questions : **(8)**

Q.20 Distinguish between DNA and RNA.

Q.21 Draw a neat labelled diagram of skeletal muscle. Give its location and function.

Q.22 What is cell division ? Mention the types of cell division.

Q.23 Label the parts A, B, C, D in the given diagram.



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