

Note: Section I is compulsory. Attempt any TWO (2) questions from Section II.

### SECTION - I

**Q.2** Write short answers to any FIVE (5) questions: 10

- i How is colonial organization unique from other organizations?
- ii - What do you know about the term Species?
- iii Write down the Scientific Names of Mustard plant and Frog.
- iv How can we organize the data?
- v Differentiate between quantitative observations and qualitative observations.
- vi Explain the efforts of Ronald Ross about his experiments on sparrows.

vii How does Lysosome work for the breakdown of food?

viii How is the solute concentration helpful in opening and closing of stomata?

**Q.3** Write short answers to any FIVE (5) questions: 10

i How can you divide five kingdoms into two groups on the basis of types of cells?

ii Give two characteristics of Kingdom Protista.

iii Define the terms autotroph and heterotroph with one example each.

iv Nucleus is visible only in interphase while chromosomes are only visible in the cell division stage. Why is that?

v Write down two points in significance of mitosis.

vi What is phragmoplast?

vii What is meant by photosystem?

viii Define fermentation and write the names of its two types.

**Q.4** Write short answers to any FIVE (5) questions: 10

i Explain the function of enzyme.

ii Describe the function of Inhibitor.

iii Differentiate between Vitamin 'A' and 'C'.

iv What is meant by night blindness?

v How does Iodine perform in our body?

vi How is heart beat rate measured?

vii What are the functions of red blood cells?

viii Write down two preventive measures to avoid Dengue fever.

### SECTION-II

**Q.5(a)** What are different types of cellular organization? Explain. 5

(b) How do plants get water and ions from soil? 4

**Q.6(a)** Why are the living organisms given scientific names instead of common names? Illustrate it with the help of examples. 5

(b) For the purpose of photosynthesis, chlorophyll and light are the basic needs. Explain. 4

**Q.7(a)** Write down the structure and types of plastids in plant cells. 5

(b) How can we say that different types of vitamins are important in our body? 4