

**SET-A**

**Short Questions (5 mark)**

1. Describe the structure of DNA with necessary diagram and mention its functions
2. Gymnosperm is advanced group than pteridophytes justify your answer.

**OR**

List out the Characteristic features of Algae.

3. Describe the structure of t-RNA with necessary diagram and mention its functions
4. Define biomolecules. Mention the biological significance of protein.

**Long Questions (8 mark)**

5. Explain the diagnostic floral characters of family Brassicaceae with the floral formula and floral diagram. Write the botanical name of any two plant of this family regarding medicinal and edible value.

**OR**

Explain the life cycle of *Dryopteris* with necessary diagram.

6. Why meiosis is called reductional division? Explain the different events occur in prophase I of meiosis cell division with necessary diagram.

**SET-B**

**Short Questions (5 mark)**

1. Angiosperm is advanced group than Gymnosperm justify your answer.
2. Describe the structure and functions of mitochondria and mention the reason why it is called semiautonomous cell organelles?

**OR**

Discuss about the structural and functional aspect of pond ecosystem with suitable examples.

3. Explain bacterial growth patterns and also explain its affecting factors
4. Describe the structure of DNA with necessary diagram and mention its functions.

**Long Questions (8 mark)**

5. Explain the diagnostic floral characters of family Solanaceae with the floral formula and floral diagram. Write the botanical name of any two plant of this family regarding medicinal and edible value

**OR**

Define alternation of generation. Describe the alternation of generation in *Marchantia* with suitable diagram.

6. Why mitosis is called equational division? Explain the different events in mitosis cell division with necessary diagram.