

M.Sc. (Botany) Semester - 3 (CBCS) Examination
Oct/Nov-2022 (NEW COURSE)
Plant Physiology (Core (New))

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

SECTION - I

- Q.1 Answer the following
- (a) Write short note on Water potential (07)
- (b) Write a note on carbohydrates (07)
- OR**
- Q.1 Elaborate the term 'Mineral nutrition'. Explain major Micro and Macro nutrients. (14)
- Q.2 Answer the following
- (a) C4 cycle (07)
- (b) CAM cycle (07)
- OR**
- Q.2 Describe the mechanism of electron transport. (14)
- Q.3 Answer the following (any seven) (07)
1. State the difference between absorption and adsorption.
 2. Explain – Water deficit
 3. What are different phases of proteins?
 4. Explain the importance of lipids in Plants cells.
 5. State major factors affecting rate of photosynthesis
 6. Give any three examples of C3 plants
 7. State the difference between 'trace elements' and 'heavy metals'
 8. What is photorespiration?

SECTION - II

- Q.1 What is Seed dormancy? Explain in detail the mechanism of breaking seed dormancy (14)
- OR**
- Q.1 Write short notes on
- (a) Gibberellins (07)
- (b) Cytokinin (07)
- Q.2 Describe the process of vernalization (14)
- OR**
- Q.2 Write short note on:
- (a) Phytochrome (07)
- (b) photoperiodism (07)
- Q.3 Answer the following (any seven) (07)
1. Which are the structure first observed in seed germination?
 2. What is heat and salinity stress physiology?
 3. Explain the importance of jasmonic acid
 4. State the significance of auxin hormone in plants
 5. How can we measure 'Growth' in plants?
 6. What are growth regulators in plants?
 7. What is ABA?
 8. Explain floral meristem.
