

M.Sc. (Botany) Semester - 3 (CBCS) Examination
Oct/Nov-2021 (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** Write short notes on
(1) Process of transpiration (07)
(2) Types of monosaccharides (07)
- OR**
- Q.1** State the function and significance of any two macronutrients in detail. (14)
- Q.2** Write short notes on
(1) Factors effecting process of photosynthesis (07)
(2) Structure of mitochondria (07)
- OR**
- Q.2** Write a detailed note on C3 and C4 cycle (14)
- Q.3** Answer the following (any seven) (07)
1. State the physical and chemical properties of water
 2. Define the relationship between soil and water
 3. Explain: simple and compound lipids
 4. Write any four chemical properties of carbohydrates
 5. Which type of plants undergoes the CAM pathway
 6. State the enzymes involved in glycolysis cycle
 7. What is photorespiration process?
 8. Explain the mechanism of nitrogen fixation

SECTION - II

- Q.1** Write a detailed note on pattern of growth and development with appropriate equations. (14)
- OR**
- Q.1** Write short notes on
(1) Types of dormancy (07)
(2) Auxins (07)
- Q.2** What is the Phytochrome system in plants? Explain Pr and Pfr in detail. (14)
- OR**
- Q.2** Write short note on:
(1) Photoperiodism (07)
(2) Shoot apex modification (07)
- Q.3** Answer the following (any seven) (07)
1. Define the term germination
 2. State the major function of cytokinin
 3. What is the role of Gibberellic Acid in plants?
 4. What is Richmond long effect?
 5. Which are the methods to break seed dormancy?
 6. Define the term salinity stress in plants.
 7. State any two biochemical feature to overcome stress in plants
 8. What is photomorphogenesis?
