

M.Sc. (Botany) Semester - 3 (CBCS) Examination
OCT/NOV-2025 (AS PER SYLLABUS YEAR JUNE-2024)
Plant Physiology (Core (New-23))

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

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

Que.1 Answer the following (any seven out of eight questions, each of two marks) (14)

- 1) Explain 'water absorption' in plants
- 2) Explain the importance of N-P-K in environment.
- 3) Define the terms PS-I and PS-II
- 4) Define 'Photosynthesis' with appropriate equation.
- 5) What is chilling stress in physiology?
- 6) State the significance of cytokinin hormone in plants
- 7) What are growth regulators in plants?
- 8) Which are the major enzymes involved in TCA.

Que.2 Write notes on the following: (any two) (14)

- 1) Significance of macro nutrients
- 2) Types of Carbohydrates
- 3) Transpiration in plants

Que.3 Answer the following (any two) (14)

- 1) Write a detailed note on C3 and CAM plants
- 2) State the structure of Mitochondria
- 3) Explain Glycolysis

Que.4 Write short note on the following (any two) (14)

- 1) Growth and development
- 2) Application of the hormone auxin
- 3) Cytokinin plant hormone

Que.5 Answer the following (14)

- 1) Explain the mechanism of Phytochrome
- 2) Describe the features to overcome heat and saline stress in plants
- 3) Define photoperiodism in detail
