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NY—22—2023

FACULTY OF SCIENCE

M.Sc. (Second Year) (Third Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

BOTANY

Paper-XI

(Plant Physiology)

(Tuesday, 5-12-2023)

Time : 2.00 p.m. to 5.00 p.m.

Time—3 Hours

Maximum Marks—75

N.B. :— (1) Attempt *all* questions.

(2) *All* questions carry equal marks.

(3) Draw neat and well labelled diagrams wherever necessary.

1. Give an account of molecular structure and physicochemical properties of water. 15

Or

Describe mechanism of phloem loading and unloading across the plant.

2. What is seed dormancy ? Describe in detail causes and methods of breaking seed dormancy. 15

Or

Describe in detail mechanism of biosynthesis and practical application of Gibberelin.

P.T.O.

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(2)

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3. Describe in detail C_4 pathway and add a note on its significance in plants. 15

Or

Describe in detail nature and properties of light. Add a note on quantum yield.

4. Describe in detail pentose phosphate pathway and add a note on its significance. 15

Or

What is respiration ? Describe in detail fermentation and its types.

5. Write short notes on (any *three*) : 15

- (a) Osmosis
- (b) Photoperiodism
- (c) Hill reaction
- (d) Concept of RQ.

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