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ST-31-2022

FACULTY OF SCIENCE

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

MAY/JUNE, 2022

(CBCS/New Pattern)

BOTANY

Paper-XI

(Plant Physiology)

(Tuesday, 28-6-2022)

Time: 2.00 p.m. to 5.45 p.m.

Time— 3.45 Hours

Maximum Marks—75

- N.B. := (i) Attempt all questions.
 - (ii) All questions carry equal marks.
 - (iii) Draw neat and labelled diagrams wherever necessary.
- 1. Describe in detail mechanism of phloem transport in plant and add a note on phloem loading and unloading.

Or

Give a detailed account of molecular structure of water. Describe in detail its phsicochemical properties.

2. Give an account on biochemistry, mechanism of biosynthesis and practical application of Gibberellins.

Or

Describe biochemistry, mechanism of biosynthesis and practical applications of Ethylene.

3. Describe in detail mechanism of carbon-reduction pathway with reference to Calvin cycle.

Or

Describe in brief chemistry property and mechanism of biosynthesis of photosynthetic pigment.

P.T.O.

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4. Describe in detail mechanism of T.C.A. cycle. Add a note on its regulation.

15

Or

Describe in detail mechanism of pentose phosphate pathway and add a note on its significance.

5. Write short notes on (any three):

15

- (i) Micronutrients in plants
- (ii) Seed dormancy
- (iii) Hill reaction
- (iv) Role of cytokinin in plant growth.