A–874

Total Pages : 3 **Roll No. .....**

BOT–504

M.Sc. BOTANY (MSCBOT)

(Biochemistry and Plant Physiology)

1st Year Examination, 2024 (June)

Time : 2:00 Hrs. Max. Marks : 70

Note* :–** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section–A

Long Answer Type Questions 2×19=38

***Note* :–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. What are Carbohydrates ? Describe various types of carbohydrates found in plants.
2. What are plant growth regulators ? Describe their physiological role in Gibberellins.
3. Give the details of the mechanism of Light reaction of Photosynthesis.
4. What are macro and micronutrients ? Describe the effect of the deficiency of five macro and micronutrients each on plants
5. Write a brief account of RNA and elucidate the differences between RNA and DNA.

Section–B

Short Answer Type Questions 4×8=32

***Note* :–** Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. What are lipids ? Discuss structure of any lipid you have studied giving its properties.
2. Explain various factors affecting seed germination.
3. What is the mechanism of stomatal transpiration ?

4. What is photoperiodism ? How does it differ from vernalization ?

5. Write short notes on any *two* of the following :

   (i) Seed dormancy

   (ii) Second Law of Thermodynamics

   (iii) CAM plants

6. Discuss the mechanism of water absorption by vascular plants.

7. What are amino acids ? Describe their biological role.

8. Describe the structure and function of plasma membrane.

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