P-40

Total Pages: 3 Roll No.

MSCBOT-601

Plant Physiology and Biochemistry

M.Sc. Botany (MSCBOT)

3rd Semester Examination, 2023 (June)

Time: 2 Hours] 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 answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION-A (Long Answer Type Questions)

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.

 $(2 \times 19 = 38)$

1. What is phloem transport? Outline the mechanism and factors affecting phloem transport.

- **2.** In reference to photosynthesis, explain about Z scheme and photosynthetic pigments.
- **3.** Draw a well labelled diagram of Electron Transport Chain and describe about different components of ETC.
- **4.** Citing suitable examples explain about different classes of secondary metabolites synthesized in plants.
- **5.** Describe about different structure of protein. Provide diagram whereever necessary.

SECTION-B

(Short Answer Type Questions)

- **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. (4×8=32)
- **1.** Differentiate between active and passive transport across plasma membrane.
- **2.** Write short note on Fermentation.
- 3. Describe about the mechanism of fruit ripening.
- **4.** Briefly explain how salt and drought stress effect plants.

- **5.** Enlist deficiency symptoms of different mineral nutrients.
- **6.** How does asymbiotic and symbiotic nitrogen fixation differ?
- 7. Mention functions of auxin and cytokines?
- **8.** What are carbohydrates? Mention their significance.

P-40/MSCBOT-601