Total Pages : 3

Roll No.

MSCBOT-601

Plant Physiology and Biochemistry

M.Sc. Botany (MSCBOT)-21 3rd Semester Examination, 2022 (Dec.)

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.

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.

(2×19=38)

1. What do you understand by plant growth regulators? Mention functions of different plant growth regulators?

- **2.** Provide a detailed analysis of function and deficiency symptoms of mineral elements?
- **3.** Mention about different classes of enzymes along with mechanism of enzyme action?
- 4. Write a detailed description of photosynthesis?
- **5.** What are different types of stress experienced by plants? Describe about stress tolerance and control?

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. Write short note on Nitrogen cycle?
- 2. Briefly mention about properties and classification of lipids?
- **3.** What are secondary metabolites, explain the function of cutin and waxes?
- 4. Differentiate between :
 - (a) Monosaccharide and polysaccharide.
 - (b) Symport and Antiport.
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- **5.** With the help of suitable diagram briefly explain about phloem translocation?
- 6. How does aerobic and anaerobic fermentation differ?
- 7. Briefly describe about Hatch-Sack pathway?
- 8. What are amino acids? Mention about their properties?