A–038

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

MSCBOT–508

M.Sc. BOTANY (MSCBOT)

(Plant Development)

2nd Semester 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 is plant tissue ? Describe types of tissues found in Angiosperms.

2. What is secondary growth in plants ? Give a detail account on it with suitable diagrams.

3. What is stomata ? Describe in detail about the theories related to mechanism of opening and closing of stomata.

4. What is nodal anatomy ? Describe about classification of nodes and significance of nodal anatomy in field of plant taxonomy.

5. Give a general account on anatomy of C3 and C4 plant leaves. Discuss how C3 and C4 plants differ in their anatomy.

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. Differentiate the following :

   (a) Parenchyma and Collenchyma

   (b) Xylem and Phloem

2. Write a short note on the following :

   (a) Seive elements

   (b) Functions of Sclerenchyma

   (c) Tunica corpus theory

   (d) Functions of Xylem

3. What is vascular system in plant ? Briefly describe its different types.

4. Describe anatomy of Monocotyledonous and Dicotyledonous stem with well labeled diagram.

5. Draw well labeled diagrams of the following

   (a) T. S. of Monocot and Dicot leaves

   (b) T. S. of Monocot and Dicot roots

6. Write a brief note on different type of anomality found in plants.

7. Write a brief note on secondary growth of storage roots vegetable.

8. Write a short note on cytological molecular analysis of Root Apical Meristems (RAM).

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