A–039

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

MSCBOT–509

M.Sc. BOTANY (MSCBOT)

(Plant Reproduction)

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. Describe the process of megasporogenesis in angiosperms, highlighting the key events and cellular changes that occur during this process.
2. How is Apomixes different from sexual reproduction ? Describe non-recurrent and recurrent apomixes.
3. Give a detail account of double fertilization in angiosperms. Mention its significance in seed development.
4. Describe the methods of vegetative propagation in flowering plants with suitable examples. Also write its advantages and disadvantages.
5. Give an account on the technique of embryo culture and also discuss its applications.

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. Write short note on tapetum layer in anther and its function.
2. What is seed dormancy ? Why is it an important process ?

3. Explain the structure and function of a pollen grain.

4. What is Parthenocarpy ? Write a short note on the significance of parthenocarpy.

5. Write a short note on the role of phytohormones in seed germination.

6. Briefly discuss about experimental embryology.

7. Draw well labeled diagram of :

   (a) T.S. of mature Anther

   (b) L.S. of ovule

8. Write short note on the following

   (a) Chiropterophily

   (b) Aggregate fruits

   (c) Endosperm

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