

A-0017

Total Pages : 3

Roll No.

MSCBOT-509

M.Sc. Botany (MSCBOT)

(Plant Reproduction)

Examination, June 2025

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 Megasporogenesis ? Describe the stages of megasporogenesis and its role in the formation of the embryo sac in flowering plants.
2. What is Endosperm ? Explain the process of endosperm development in Angiosperms.
3. Explain the mechanisms of Pollination in plants and its significance.
4. Define Anther and Pollen cultures, and describe the initial cleavage patterns and development modes of the pro-embryogenic cell mass obtained from cultured pollen grains.
5. Write short notes on the following :
 - (i) Tapetum and its function
 - (ii) Types of pollen tetrad
 - (iii) Seed dormancy

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 between Sexual reproduction and Asexual reproduction
2. Write a note on Monosporic (Polygonum type) Embryo Sac.
3. What do you understand by Triple fusion and Syngamy ?
4. Differentiate between Chasmogamous and Cleistogamous flower.
5. What are the different ways of entry of pollen tube into the ovule ?
6. Discuss the salient features of tissue culture,
7. Name various types of ovule and describe any one.
8. Write short notes on the following (any two) :
 - (i) Pollen grain structure
 - (ii) Entomophily
 - (iii) Filiform apparatus
