

A-1211

Total Pages : 4

Roll No.

MSCBOT-509

M.Sc. Botany (MSCBOT)

Plant Reproduction

Examination February, 2026

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.

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(1)

P.T.O.

1. Explain the process of microspore and megaspore formation with the help of suitable diagrams.
2. Write a detailed account of the post-fertilization changes in the ovule and ovary of angiosperms with suitable examples and diagram.
3. Discuss in detail the mechanisms of pollination in plants and describe the structural adaptations promoting different types of pollination.
4. Explain the physiological and hormonal control of seed germination and dormancy.
5. Discuss the principles and applications of tissue culture techniques in experimental embryology, with reference to embryo culture.

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 notes on any *three* (3) of the following :
 - (a) Role of Abscisic acid
 - (b) Female gametophyte
 - (c) Thalamus
 - (d) Aestivation

2. Differentiate any *two* of the following :
 - (a) Epicotyl and hypocotyl
 - (b) Dicot and monocot embryo
 - (c) Auxin and Cytokinin

3. Define polyembryony. Describe its types, causes, and significance with suitable examples.

4. Briefly explain the sterilization process and its importance in plant tissue culture.

5. What is apomixis ? Discuss its classification and significance.

6. What are the differences between simple, aggregate, and multiple fruits ?

7. Briefly explain the types and methods of vegetative propagation.
8. Discuss the following :
 - (a) Anatropous ovule
 - (b) Embryo Sac
