

K-356

Total Pages : 3

Roll No.

MSCBOT-509

Plant Reproduction

M.Sc. Botany (MSCBOT)

2nd Semester Examination, 2023 (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. 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)

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. (a) Explain the process of microsporogenesis in angiosperms.
(b) Draw a labelled diagram of a mature pollen grain.
2. Give a detail account of the development of ovule, megaspores and embryo sac with suitable diagrams.
3. Write an essay on the causes and types of polyembryony. Discuss its significance.
4. Explain the process of androgenesis in plants. Also discuss the significance of androgenic haploids in plant breeding and genetic improvement.
5. Write short notes on the following :
 - (a) Tapetum.
 - (b) Triple fusion.
 - (c) Pollination.
 - (d) Structure of ovule.

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. What is the significance of double fertilization in plants?

2. Differentiate between sexual reproduction and asexual reproduction in plants.
 3. Describe in brief about the parthenocarpy and its types.
 4. Explain different type of apomixis reported in angiosperms.
 5. Discuss the natural and artificial methods of vegetative reproduction in flowering plants.
 6. Write down the conditions necessary for seed germination.
 7. Discuss the structure and functions of various types of ovules in angiosperms.
 8. Write short note on the following :
 - (a) Development of seed.
 - (b) Filiform apparatus.
 - (c) Entry of pollen tube into ovule.
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