K-377

Total Pages: 3 Roll No.

MBOT-607

EMBRYOLOGY OF ANGIOSPERMS

M.Sc. Botany (MSCBOT)

4th Semester Examination, 2023 (Dec.)

Time: 2 Hours] [Max. Marks: 35

Note: This paper is of Thirty Five (35) 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 Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only.

 $(2\times9\frac{1}{2}=19)$

- **1.** Give a detailed account of microsporogenesis and development of male gametophyte.
- **2.** Write an essay on the causes and types of polyembryony. Add a note on its significance.
- **3.** What is Palynology? Discuss principles and applications of Palynology.
- **4.** Give a detail account of apomixis.
- **5.** What is Parthenocarpy? Explain how it can be induced and its significance in agriculture.

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)

- 1. What is double fertilization? Discuss its significance.
- **2.** Describe embryo development in monocots.
- **3.** Write a note on self incompatibility.
- **4.** Describe tetrasporic embryosac with labelled diagram.

- **5.** Write a short note on pollen culture.
- **6.** Discuss about types of ovules.
- **7.** What is recurrent apomixis?
- **8.** Write short notes on any *two* the followings:
 - (a) Adventive embryony.
 - (b) Triple fusion.
 - (c) Parthenogenesis.