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[Roll No.]

BOT-552

**M.Sc. (Botany) IInd Year
Examination Dec., 2023**

**MEDICINAL PLANTS AND
EMBRYOLOGY OF ANGIOSPERMS**

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 there in. 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. What are the traditional medicinal systems of India ? Describe origin and development of them in brief.
2. Give a detailed account on polyembryony.
3. What is ethnobotany ? Define its interdisciplinary approach and practical applications of ethnobotanical data.
4. Give a detailed account on morphology, active principles and medicinal value of *Rauvolfia serpentina* and *Withania somnifera*.
5. Write an account on different types of endosperm development you have studied and discuss its cytology

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 any *two* of the following :
 - (a) Microsporogenesis
 - (b) Classification of crude drugs based on phytochemicals
 - (c) Importance of phytochemicals in modern medicine

2. What is self incompatibility ? Describe in brief its advantages and biological significance,
3. Write short notes on the following :
 - (a) *In-situ* conservation
 - (b) Cryopreservation
4. What are synergids ? Define its functions.
5. Write brief notes on following (any *four*) :
 - (a) Aleurone tissue
 - (b) IUCN
 - (c) Parthenocarpy
 - (d) False Polyembryony
 - (e) Protandry and protogyny
6. Describe the application of embryology in solving taxonomic problems.
7. Write a brief note on ovary and ovule culture.
8. Write short notes on the following :
 - (a) Types of ovules
 - (b) Apomixis and its significance
