**A-0012**

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# MSCBOT-503

## M.Sc. BOTANY (MSCBOT)

**(Pteridophytes, Gymnosperms and Palaeobotany)**

1st Semester Examination, Session December 2024

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. Give an account of the structure and development of gametophyte in Selaginella.
2. Write in detail about the Telomic concept and origin of leaves and roots in Pteridophyta.
3. Describe economic significances of Pteridophytes with reference to food, medicine and agriculture.
4. Distinguish between the wood anatomical features of Cycas and Pinus. State the geographical distribution of Cycas in India. Add a note on the economic importance of the gymnosperms with reference to wood and essential oil.
5. Give an account of the anatomical characters of young and old stem of Gnetum.

## 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. Compare the stem anatomy of Cycas and Pinus.
2. Discuss morphology, structure and reproduction in Ephedrales.

3. What is the anatomical peculiarity associated with the leaves of Salvinia.

4. Describe resin-producing Gymnosperms.

5. Write the Land adaptive features in Preridophyta.

6. Describe with labelled sketches of the sorus of Marsilea.

7. Explain the structure of the male and female cones hi Welwitschia.

8. Explain the methods to study the fossils.

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