

**K-351**

Total Pages : 3

Roll No. ....

**MSCBOT-503**

**PTERIDOPHYTES, GYMNOSPERMS AND  
PALEOBOTANY**

M.Sc. Botany (MSCBOT)

1st 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. Discuss the various trends in Gametophyte evolution among the Pteridophytes.
2. Describe the morphology and internal structure of reproductive organs in Dryopteris.
3. Describe the structure and reproduction in Coniferales.
4. Write an essay on evolution of Gymnosperms.
5. Discuss the variation in the structure of female gametophyte in Gymnosperms.

### **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 meant by the term Geological Time scale? Explain how the time scale is organized.
2. Write short notes on the following
  - (a) Sphenophyllum
  - (b) Lepidodendron
3. Describe the structure and reproduction in Isoetes

4. Explain the structure of the male and female cones in *Welwitschia*.
  5. Discuss the contributions of Prof. Birbal Sahni in the field of Gymnosperm fossil history.
  6. Discuss the role played by Pteridophytes as ecological indicators.
  7. Discuss on the Economic importance of Gymnosperms.
  8. Discuss the various views regarding stelar evolution among Pteridophytes.
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