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Total Pages : 3

Roll No.

MSCBOT-503

Pteridophytes, Gymnosperms and Palaeobotany

M.Sc. BOTANY (MSCBOT)

Ist Semester Examination, 2022 (June)

Time : 2 Hours]

Max. Marks : 80

Note : This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

1. Describe the various systems of classification of gymnosperms in detail.

2. What do you understand by stele? Discuss the various type of steles in Pteridophytes in detail with suitable diagrams.
3. Discuss the development of male and female gametophyte in *Selaginella*. How the formation of embryo is take place in it?
4. Describe the economic importance of gymnosperms in detail.
5. What do you understand by Paleobotany? What is its importance in recent time? Discuss the types of fossils in detail.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. Write the difference between :
 - (a) Apogamy and apospory.
 - (b) Gametophyte and sporophyte in Pteridophytes.
 - (c) Bennettitales and Cycadales.
 - (d) Petrification and carbonization.
 - (e) Pteridophytes and gymnosperms.

2. Briefly describe the similarities of Pteridospermales with Pterophytes and Cycadophytes.
 3. Discuss the following :
 - (a) *Rhynia*.
 - (b) Ground thin section technique of fossils study.
 - (c) Distinguishing features of class Psilophytopsida.
 - (d) *Cycas ovule*.
 - (e) *Welwitschia*.
 4. What is the economic importance of Pteridophytes?
 5. Write a note on distribution, habitat and external features of *Osmunda*.
 6. How the pollination and fertilization in gymnosperms take place?
 7. Write the characteristic features of Pentoxylales.
 8. Briefly discuss the mesozoic era in geological time scale?
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