

Exam. Code : 210002

Subject Code : 4219

M.Sc. (Botany) 2nd Semester

PTERIDOLOGY

Paper : BOTC-528

Time Allowed—3 Hours] [Maximum Marks—50

Note :— Attempt any **five** questions selecting at least **one** question from each section. Draw neatly labelled diagrams wherever required. Marks for each question are indicated in the question paper.

SECTION—A

1. What is Telome theory ? Discuss the elementary structures and processes proposed in the theory. 10
2. Write illustrated notes on the following :
 - (a) Origin of land flora
 - (b) Homologous theory. 5×2=10

SECTION—B

3. Classify Pteridophytes upto order level giving diagnostic characters of various taxa included in your syllabus. 10
4. Write illustrated notes on the following :
 - (a) Organography of Pteridophytes
 - (b) *Rhynia* sp. 5×2=10

SECTION—C

5. Giving examples from your syllabus, justify the statement that prothallus has followed a trend of simplification in Pteridophytes. 10
6. Write illustrated notes on the following :
 - (a) Soral evolution in ferns
 - (b) *Ophioglossum*. 5×2=10

SECTION—D

7. Elucidate the role of polyploidy and hybridization as related phenomenon in speciation among ferns. 10
8. Write illustrated notes on the following :
 - (a) Apospory
 - (b) Ferns in phytoremediation. 5×2=10