

SECOND SEMESTER EXAMINATION 2021-22

M.Sc. BOTANY

Paper - II

Bryophyta & Pteridophyta

Time : 3.00 Hrs.

Max. Marks : 80

Total No. of Printed Page : 03

Mini. Marks : 29

Note: Question paper is divided into three sections. Attempt question of all three section as per direction. Distribution of Marks is given in each section.

Section - 'A'

Very short type question (in few words).

6x2=12

Q.1 Attempt any six question from the following questions :

- (i) Name one economically important plant under Bryophyta ?
- (ii) What is Peristome teeth ?
- (iii) What is Protonema ?
- (iv) What are Perichoetial Leaves ?
- (v) Give the names of collumelate and non collumelate species of Nototyllus ?
- (vi) Define Dictyostele ?
- (vii) Name the Pteridophyte which is known as "Club Moss" ?
- (viii) Give the botanical name of water fern ?
- (ix) Why are Pteridophyte known as vascular cryptogame ?

(2)

Section - 'B'

Short answer question (In 200 words)

4x5=20

Q.2 Attempt any four question from the following questions :

- (i) Write about the photosynthetic tissues in Bryophyta ?
- (ii) Describe the development of Archegonia in Bryophyta ?
- (iii) Describe the various methods of Spore dispersal in Bryophyta ?
- (iv) Explain the capsule of Funaria with labelled diagram ?
- (v) Describe the apogamy and how many types ?
- (vi) Describe the important characters of Psilophytales ?
- (vii) What is heterospory ?

Section - 'C'

Long answer/Essay type question.

4x12=48

Q.3 Attempt any four question from the following questions :

- (i) Describe the external features and anatomy of the gametophyte of the Marchantiales ?
- (ii) Discuss ? Sphagnum is unique member of Bryophyta ?
- (iii) What is meant by alternation of generations. Explain in with reference to the life history of Polytrichum.
- (iv) Name a leucate heterosporous pteridophyte. Describe the structure and development of Male and Female gametophyte of such pteridophyte ?

(3)

- (v) Write notes on the following :-
- (a) Discuss the morphology of terete spike of *Ophioglossum* ?
 - (b) T.S. aeral shoot of *Psilotum needum* ?
 - (c) Rhizophore of *Selaginella* ?
 - (d) V.L.S. of *Marsilea sporocarp.*
- (vi) Define the term stele. Give labelled diagram of steles found in Pteridophytes?
- (vii) Write differences between following :-
- (a) Heptosporangiate and Eusporangiate fern.
 - (b) Sorus and synangium in Pteridophytes ?
 - (c) Rhizophore and Root.
 - (d) Branch gaps and Branch traces.

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