

Total No. of Printed Pages:02

SUBJECT CODE NO:- B-2159
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem.-II) Examination OCT/NOV 2019
Botany Paper- IV
Diversity of Cryptogams-II

[Time: 1:30 Hours]

[Max. Marks:50]

Please check whether you have got the right question paper.

- N.B i) Attempt all questions.
 ii) Draw neat and well – labeled diagram wherever necessary.
- Q.1 Describe the external structure of Marchantia thallus and add a note on T. S of thallus. 20
 OR
 Explain in detail life cycle of funaria
- Q.2 Give an account of various types of gametophytes found in Lycopodium. 20
 OR
 Explain in brief: (any four)
 A. Gemma cup
 B. Sent features of Bryophyta
 C. synangium.
 D. Rhizophore
 E. Sporocarp
 F. Strobilus of selaginella
- Q.3 Multiple choice questions. 10
 1. Bryophytes grow in habitats that are:
 a) dry b) Moist c) salty d) Marshy
 2. Bryophytes are
 a) Aquatic b) Amphibians c) Terrestrial d) Aerial.

3. In Bryophytes embryonic development of zygote takes place in.
 - a) Antheridium
 - b) sporangium
 - c) capsule
 - d) Archegonium.
4. ----- plant is called as cord moss.
 - a) marchantia
 - b) funaria
 - c) Marsilea
 - d) psilotum
5. Whisk fern is -----
 - a) psilotum
 - b) selaginella
 - c) Lycopodium
 - d) Marsilea.
- 6) Class Eligulopsida is of -----
 - a) psilotum
 - b) Lycopodium
 - c) selaginella
 - d) Marsilea
7. Trabeculae in selaginella are modified:
 - a) Endodermal cells
 - b) Pericycle cells.
 - c) cortical cells
 - d) Pericycle and endodermal cells.
8. Rhizophore is a
 - a) Root
 - b) stem
 - c) sui- generis
 - d) Rhizoids.
9. Ridges and grooves are present on the stem of:
 - a) psilotum
 - b) Marsilea
 - c) selaginella
 - d) Equisetum.
10. Presence of air cavities in the stem of Equisetum indicates the feature of
 - a) Hydrophytes
 - b) Xerophytes
 - c) mesophytes
 - d) Halophytes.

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SUBJECT CODE NO:- B-2052
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F. Y. (Sem-II)
Examination November/December- 2022
Botany Paper- IV
Diversity of Cryptogams-II

[Time: 1:30 Hours]

[Max. Marks:50]

Please check whether you have got the right question paper.

- N.B i) Attempt all Questions.
 ii) Draw neat and well-labeled diagram wherever necessary.
- Q.1 Give an account of vegetative and sexual reproduction in funaria 20
- OR**
- a) Describe external gametophytic structure of marchantia 10
- b) General characters of Bryophytes. 10
- Q.2 Describe external and internal structure of Equisetum sporophyte 20
- OR**
- Write in brief (any four) 20
- 1) Rhizophore
 - 2) Gemma cup
 - 3) Economic Importance of Bryophytes
 - 4) Sporophyte of Selasinella
 - 5) Sprocarp of marsilea
 - 6) Psilotum sporophyte
- Q.3 Multiple Choice questions. 10
- 1) Heterophytic alternation of generation is commonly found in
 - a) Bryophytes
 - b) prenidophyte
 - c) Gymnosperm
 - d) None of the above

- 2) Last stage of gametophytic generation is
 - a) Spore mother cell
 - b) Spore
 - c) gamets
 - d) zygote
- 3) First land inhabitation plants are
 - a) Pteridophytes
 - b) Bryophytes
 - c) Gymnosperms
 - d) Angiosperms
- 4) The term Bryophyta was given by
 - a) Drawin
 - b) Aristotle
 - c) Galen
 - d) Braun
- 5) In Marchantia vegetative reproduction take place with the help of
 - a) Gemma cup
 - b) Elastar
 - c) Protonema
 - d) sporocarp
- 6) Heterospory is the production of
 - a) Dipliod and tetraploid spore
 - b) Sexual and Asexual spore
 - c) large and small spore
 - d) Hapliod and diploid spore
- 7) Pteridophytes also known as
 - a) Phenerogams
 - b) Spermatophyte
 - c) Amphibian
 - d) Vascular cryptogams
- 8) Fertile and sterile two types of branches occurs in these plant
 - a) Marsilea
 - b) Cycopodiun
 - c) Equisetum
 - d) Psilotum
- 9) Each sorous in marsilea is covered by
 - a) In dusium
 - b) Integuments
 - c) elestar
 - d) capsule
- 10) In Selaginella trabeculae are modification of
 - a) Epidermal Cell
 - b) Cortical Cell
 - c) Endodermal Cell
 - d) Peridermal Cell

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SUBJECT CODE NO:- 2052
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem. II)
Examination March/April-2022 (To Be Held In June/July-2022)
Botany Paper-IV
Diversity of Cryptogams – II

[Time: 1.53 Hours]

[Max. Marks:50]

Please check whether you have got the right question paper.

- N.B
1. Attempt all questions.
 2. Illustrate your answer with suitable labeled diagrams.
- Q.1 Describe the general characters of Bryophytes and give its economic importance. 20
OR
Describe external & internal structure of Funaria sporophyte. 20
- Q.2 Describe occurrence, external and internal structure of sporophyte of selaginella. 20
OR
Write short notes on (any four) 20
- a) Gemma CUP
 - b) Heterospory
 - c) Vegetative reproduction in Funaria
 - d) Sporangium of equisetum
 - e) Development of synangium
 - f) Ligule
- Q.3 Multiple choice questions. 10
1. Who among the following is regarded as father of Indian Bryology _____.
 - a) Prof. K.C. Merta
 - b) Prof. D. D Pant
 - c) Prof. S. R. Kashyap
 - d) Prof. Mehra P. N.
 2. Which of the following known as true moss _____.
 - a) Club moss
 - b) Reindeer moss
 - c) Bogg moss
 - d) Irish moss
 3. Protonema is the stage in the life cycle of _____.
 - a) Funaria
 - b) Marchantia
 - c) Riccia
 - d) None of the above
 4. Marchantia plant shows CUP like structure on midrib of the branch called as _____.
 - a) Ostiale
 - b) Gemma CUP
 - c) Seta
 - d) Receptacle

5. This pteridophytic plant commonly known as 'horse tail'. _____.
- a) Selagenella
 - b) Mausilea
 - c) Equisetum
 - d) Lycopodium
6. Strobilus of club mosses consist _____.
- a) Chlorophyll
 - b) Xanthophyll
 - c) Sporophyll
 - d) None of the above
7. Megaspore shows small dark coloured papillae at its apex in the pteridophytic plant _____.
- a) Equisetum
 - b) Lycopodium
 - c) Psilotum
 - d) Mausilea
8. In the psilotum plant state is _____.
- a) Protostele
 - b) Siphonostele
 - c) Plectostele
 - d) Mixed stele
9. In between stem and leaf small membranous outgrowth is called ligule, it is present in _____.
- a) Selaginella
 - b) Marsilea
 - c) Lycopodium
 - d) Equisetum
10. Pteridophyte differ from Bryophytes in possessing _____.
- a) Independent gametophyte
 - b) Developing wall
 - c) Vascular system
 - d) Flagellate spermatozoids

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SUBJECT CODE NO: - Y-2052
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem-II)
Examination March / April - 2023
Botany Paper- IV Diversity of Cryptogams-II

[Time: 1.30 Hours]

[Max. Marks: 50]

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Draw neat and well-labelled diagram Wherever necessary.

- Q1 Describe the structure of Marchantia gametophyte 20
OR
 a) General Characters of Bryophytes 10
 b) structure of Funaria sporophyte 10
- Q2 Give an account of external and Internal structure in Marsilea sporophyte 20
OR
 write in brief (any Four) 20
 1. Apophysis
 2. Types of steles in Lycopodium
 3. Selaginella strobilus
 4. Economic Importance of Bryophytes
 5. Prothallus of Equisetum
 6. Psilotum sporophyte
- Q3 Multiple choice questions 10
 1) Which of the Following is non vascular embryophyte?
 a) Thallophyta b) Bryophyta c) pteridophyte d) All of the above
 2) Bryophytes are of _____
 a) Great Economic value
 b) Non value at all
 c) Great ecological Importance
 d) No aesthetic value
 3) Elaters are present in sporangium of
 a) Marchantia b) Funaria c) Selaginella d) Riccia
 4) Gemmae are vegetative reproductive structure found in
 a) Angiosperm b) Algae c) Bryophytes d) Pteridophytes
 5) Function of elaters is
 a) Absorption of food b) Conduction of sap
 c) spore dispersal d) provide support

- 6) Evolutionary Importance characters of Selaginella is
 - a) Heterosporous nature
 - b) Rhizophore
 - c) strobil
 - d) Ligule
- 7) Seed habit originated in
 - a) Bryophytes
 - b) Pteridophytes
 - c) Fungi
 - d) Gymnosperm
- 8) Commonly these pteridophyte plant called as 'ground pines'
 - a) Psilotum
 - b) Marsilea
 - c) Lycopodium
 - d) Selaginella
- 9) If Sori develops in a special nut Like structure, then it is called as sporocarp it occurs in
 - a) Marsilea
 - b) Lycopodium
 - c) Psilotum
 - d) Equisetum
- 10) Psilotum plant is
 - a) Disporous
 - b) Trisporous
 - c) Tetrasporous
 - d) Homosporous

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SUBJECT CODE NO: - BB-2327
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (CBCGS) (Pattern 2022) F.Y (SEM-II)
Examination November / December- 2023
Botany Paper-IV
Diversity of Cryptogams-II

[Time: 1:30 Hours]

[Max. Marks: 40]

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Illustrate your answer with suitable labelled diagrams.

Q1 Give an account on male and female reproductive structure of Funaria. 10

OR

Describe in brief.

- a) Female reproductive organ of Marchantia
- b) L.S. of sporophyte of Anthoceros

Q2 Describe prothallus of psilotum with well labelled diagram. 10

OR

- a) Rhynia
- b) Morphology of marsilea

Q3 Write short notes on (any two) 10

- a) Gemma cup
- b) T.S. of Lycopodium leaf
- c) Sporophyte of sellaginella

Q4 Multiple choice questions. 10

- 1) The most advanced sporophyte in bryophyte is

a) Marchantia	b) Funaria	c) Marsilea	d) Lycopodium
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- 2) Liverworts is common name of

a) Funaria	b) Selaginella	c) Marchantia	d) Marsilea
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- 3) Club moss is the common name of

a) Selaginella	b) Psilotum	c) Equisetum	d) Lycopodium
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- 4) Ligule and cone are found in -----

a) Selaginella	b) Lycopodium	c) Psilodum	d) Marsilea
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- 5) Leaves of which plant have ligule
a) Lycopodium b) Selaginella c) Equisetum d) Marsilea
- 6) The root hairs arise in pairs in -----
a) Equisetum b) Marsilea c) Dryopteris d) Lycopodium
- 7) Elaterd spores are present in
a) Selaginella b) Equisetum c) Rhynia d) Marsilea
- 8) Selaginella belongs to ----- division.
a) Lycopsidea b) Pteropsida c) Psilopsida d) Sphenopsida
- 9) In Equisetum the antherozoids are -----
a) Uniflagellate b) Bi flagellate c) Multiflagellate d) Non flagellate
- 10) Horse tail belongs to -----
a) Psilophytopsida b) Psilotopsida c) Sphenopsida d) Pteropsida