

Reg. No. :

Name :

IV Semester B.Sc. Degree (CBCSS – Sup./Imp.) Examination, April 2021
(2014 – '18 Admissions)

CORE COURSE IN BOTANY/PLANT SCIENCE

4B04BOT/PLS-Bryology, Pteridology, Gymnosperms and Palaeobotany

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer all.

(4×1=4)

1. Resurrection plants are

- A) *Pteris* B) *Selaginella* C) *Equisetum* D) *Marsilea*

2. Transfusion tissues are seen in

- A) *Gnetum* leaves B) *Pinus* leaves
C) *Cycas* leaves D) None of these

3. Columella tissues are seen in

- A) *Riccia* B) *Funaria*
C) *Anthoceros* D) Both *Funaria* and *Anthoceros*

4. Lepidocarpon is

- A) Stem B) Leaf C) Seed D) Root

SECTION – B

Answer any eight.

(8×2=16)

5. Enumerate the asexual reproduction present in *Riccia*.

6. What is prothallus ? Explain.

7. Explain the structure of *Rhynia*.

8. What are coal balls ?



9. Write objectives of Palaeobotanical studies.
10. Write a note on ovule of *Cycas*.
11. Explain the internal structure of mature antheridium of *Funaria*.
12. Enumerate Angiosperm characters *Gnetum*.
13. Write economic importance of Gymnosperms.
14. Write a note on *Anthoceros* mature spore.
15. Explain the dehiscence of *Pteris* sporangium.
16. Write the ecological importance of bryophytes.

SECTION – C

Answer **any four**.

(4×3=12)

17. Explain the various types of asexual reproduction in *Funaria*.
18. Explain the structure of *Marsilea* sporocarp.
19. What are the applied aspects of Palaeobotany ?
20. Write a critical note on *Lyginopteris* stem.
21. Give an account of different types of steles in Pteridophytes.
22. Explain the anatomy of *Pinus* needle.

SECTION – D

Answer **any one**.

(1×8=8)

23. Write an essay about sporophyte and spore dispersal of *Anthoceros*.
 24. Explain the life cycle of *Equisetum*.
 25. With the help of diagram explain the sexual reproduction in *Pinus*.
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Reg. No. :

Name :

IV Semester B.Sc. Degree CBCSS (OBE) Regular/Supplementary/Improvement
Examination, April 2022
(2019 Admission Onwards)

CORE COURSE IN BOTANY/PLANT SCIENCE

4B04BOT/PLS : Plant Diversity II – Pteridophytes and Gymnosperms

Time : 3 Hours

Max. Marks : 40

Instruction : Draw diagrams wherever specified.

PART – A

Objective type questions. Answer **all**.

(4×1=4)

1. In Pteridophytes, the dominant generation is
a) Gametophyte b) Haploid c) Diploid d) Triploid
2. "Club moss", belongs to
a) Fungi b) Algae c) Bryophyte d) Pteridophyte
3. Which of the following is absent in the xylem of Gymnosperms ?
a) Trachieds b) Parenchyma c) Fibers d) Vessels
4. Endosperm in Gymnosperm is
a) Haploid b) Diploid c) Triploid d) None

PART – B

Short Essay questions. Answer **any eight**.

(8×2=16)

5. Enumerate the salient features of *Pteridophytes*.
6. Draw and label the internal structure of *Marsilea*.
7. Peristome and its significance.
8. Short notes on apophysis.
9. Write an account on the evolutionary relationships of *Bryophytes* and *Pteridophytes*.

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10. Write short notes on leaf types of *Selaginella*.
11. Write an account on the vegetative reproduction in *Cycas*.
12. Distinguish between apospory and apogamy.
13. Explain the types of protostele in *Pteridophytes*.
14. Enumerate the evolutionary aspects of *Gymnosperms*.
15. Write a note on Indian contributions of *Gymnosperm* study.
16. Explain the collection procedures using for spores of *Pteridophytes*.

PART – C

Essay questions. Answer **any four**.

(4×3=

17. Explain the male and female cone of *Gnetum*.
18. Describe the economic importance of *Gymnosperms*.
19. Describe the vegetative characters of *Equisetum*.
20. Explain the structure of strobilus of *Selaginella*.
21. Explain the spore dispersal mechanism of *Pteris*.
22. Briefly explain the anatomy of *Cycas* young stem.

PART – D

Long Essay questions. Answer **any one**.

(1×8

23. Write an essay on reproduction in *Pinus*.
 24. Discuss about the classification of *Pteridophytes* by Reimer.
 25. Explain the life cycle of *Marsilea*.
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