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**N – 5447**

**Reg. No. :** .....

**Name :** .....

**First Semester M.Sc. Degree Examination, May 2022**

**Botany**

**BO 212 : BRYOPHYTA, PTERIDOPHYTA AND GYMNOSPERMS**

**(2019 Admission Onwards)**

Time : 3 Hours

Max. Marks : 75

I. Write short notes on the following questions.

1. Peat moss
2. Heterospory
3. Pycnoxylic wood
4. Amphigastria
5. Paleobotany
6. Seed-fern
7. Sporocarp
8. Perichaetium
9. Index fossil
10. Mesarch.xylem

**(10 × 1 = 10 Marks)**

P.T.O.



II. Answer the following questions in not more than **50** words.

11. (a) Give the diagnostic features of Jungermanniales.

OR

(b) What are elaters? Explain their function.

12. (a) Explain the merits of telome theory.

OR

(b) Comment on the harmful effects of *Salvinia*.

13. (a) Give the salient features of Bennettitales.

OR

(b) Comment on the Angiosperm characters of Gnetopsida.

14. (a) What is polyembryony? Mention its types.

OR

(b) Explain Geological time scale.

15. (a) Distinguish between bract scale and ovuliferous scale.

OR

(b) Comment on Radiocarbon dating.

**(5 × 2 = 10 Marks)**

III. Answer the following questions in not more than **150** words.

16. (a) Explain the vegetative methods of reproduction in Bryophytes.

OR

(b) Comment on the range of thallus organization in Bryophytes.



17. (a) Explain the spore producing structures in Pteropsida.

OR

(b) Describe the external morphology of *Azolla*.

18. (a) What is Fossilization? Mention different types of Fossils.

OR

(b) Write a brief account on *Zygopteris*.

19. (a) Comment on the major contributions of Sit Kashyap.

OR

(b) Write a brief account on the features of thallus and sporogonium in *Targionia*.

20. (a) Comment on the major similarities and differences of Pteridophytes with Bryophytes.

OR

(b) Describe the external morphology of *Ophioglossum*.

21. (a) Explain the salient features of Pentoxylales.

OR

(b) Comment on woody gymnosperms.

22. (a) Describe the structure of *Lepidocarpon*. Draw labelled diagram.

OR

(b) Explain the uses of Fossil.

**(7 × 5 = 35 Marks)**



IV. Answer the following questions in not more than **250** words.

23. (a) Give an account on the economic importance of Bryophytes.

OR

(b) Describe the thallus structure and reproduction in *Adiantum*.

24. (a) Write the classification of Gymnosperms by KR. Sporne and add a note on the diagnostic features of major classes.

OR

(b) Give an elaborate account of the structure and reproduction in *Rhynia*.

**(2 × 10 = 20 Marks)**

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