

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Botany

BO 01 CT 01 – **PHYCOLOGY, BRYOLOGY, PTERIDOLOGY AND GYMNOSPERMS**

Time : Three Hours

Maximum : 36 Weightage

I. Answer *all* the questions briefly :

1. What are globule and **nucule**?
2. Differentiate between **unilocular** and **plurilocular** sporangia.
3. What are **gonimoblast** filaments?
4. What are **hormogones**?
5. What is a **coenobium**? Give an example.
6. What are receptacles and **conceptacles**?
7. What is **rhizophore**?
8. What is velum? What is its function?
9. What are **gemmae**?
10. What are the major economic importance of Gymnosperms?
11. Describe the characters of the ovule of Gymnosperms.
12. How does **Gnetales** differ from other Gymnosperms?
13. What are 'Bars of **Sanio**'?
14. List the fern characters of **Cycas**.

(14 x 1 = 14 weightage)

II. Answer any *seven* questions in not more than 100 words :

15. Describe the **tetrasporine** line of evolution of **thallus** in green algae.
- 16.. Differentiate between **carposporophyte** and **tetrasporophyte**.
17. Write notes on **heterotrichous thallus** in brown algae.
18. What are the general characters of **lycopodiales**?
19. Write short notes on : (a) **Apospory** ; (b) **Apogamy**.

Turn over

20. Describe briefly various asexual methods of reproduction in bryophytes.
21. Differentiate between **homosporic** and **heterosporic** ferns giving suitable examples.
22. Explain **exosporic** and **endosporic** gametophytes. Give examples.
23. Is **Ginko** a living fossil? Evaluate.
24. Comment on the affinities of Gymnosperms with Angiosperms.

(7 x 2 = 14 weightage)

III. Answer any *two* questions in 300 words each :

25. With the help of suitable diagrams describe different types of **stelar** system found in **pteridophytes**.
26. Describe the structure and development of **sporophyte** of **Anthocerotales** with the help of suitable diagrams.
27. Mention the general characteristics of **Phaeophyceae** and discuss the various types of life cycles seen in this group.
28. Compare and contrast the male reproductive structures of **Coniferales** and **Taxales**.

(2 x 4 = 8 weightage)