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(Pages : 2)

Name.....

Reg. No.....

**FIRST SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, NOVEMBER 2020**

(CBCSS)

Botany

BOT 1C 01—PHYCOLOGY, BRYOLOGY, PTERIDOLOGY AND GYMNOSPERMS

(2019 Admissions)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

1. *In cases where choices are provided, students can attend all questions in each section.*
2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
3. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

Part A

Answer any four questions.

Each question carries 2 weightage.

1. Comment on the phylogenetic considerations in algal classification. Give a brief outline of a phylogenetic classification.
2. Write an illustrated account of heterotrichous and siphonous forms of thallus organization in algae.
3. List the modes of perennation in bryophytes.
4. Write the characteristic features of Sphaerocarpaceae with emphasis on reproduction.
5. Write an account on the contributions of Indian pteridologists.
6. Discuss the evolutionary and phylogenetic significance of Sphenopsida.
7. Give an outline of Chamberlain's classification of gymnosperms with the characteristic features.

(4 × 2 = 8 weightage)

Turn over

Part B

Answer any four questions.

Each question carries 3 weightage.

8. Give a general account of thallus structure and reproduction in Rhodophyta.
9. Write an account of asexual spores in algae substantiated with suitable illustrations.
10. Describe the sex organs and sporogonia of Marchantiales.
11. Give an account apospory, apogamy and parthenogenesis in the life cycle of pteridophytes and causes for these abnormalities.
12. Discuss the origin and evolution of sporangium in pteridophytes.
13. Give an illustrated account of the reproductive structures in Gnetales, Ephedrales and Welwitschiales.
14. Discuss the distribution and morphology of Pteridospermales and Ginkgoales.

(4 × 3 = 12 weightage)

Part C

Answer any two questions.

Each question carries 5 weightage.

15. 'Algae are more beneficial than detrimental to mankind'. Elaborate the statement.
16. Write an essay on the evolution of gametophyte and sporophytes of bryophytes.
17. How is the vascular system organised in different pteridophytes? Add a note on the evolution of steles.
18. Write an essay on geological time scale and correlated predominant gymnosperms.

(2 × 5 = 10 weightage)