647510 **BSCboMJ206x-3C** **Seat No :_____**

B.Sc. Semester - 3 (NEP-2020) Examination

OCT/NOV-2024

BOT: Archegoniate (Major-6)

Time: 2:00 Hours **Marks: 50**

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que-1 (A) Describe in detail: (Any one) **(08)**

1) Discuss the classification of Bryophytes according to Rothmaler, including the major groups and their distinguishing features.
2) Explain the alternation of generations in Bryophytes. How does this process differ from that in Pteridophytes, and what are the implications for their life cycle?

Que-1 (B) Write short note:(Any one): **(04)**

1) The general characteristics of Bryophytes, highlighting their unique features that differentiate them from other plant groups.
2) The process of vegetative reproduction in bryophytes and provide examples of bryophytes that utilize this method.

Que-2 (A) Describe in detail: (Any one) **(09)**

1) Discuss the morphology and anatomy of Marchantia, highlighting its adaptations to the environment. How do these features contribute to its reproductive success?
2) Describe the reproductive processes of Funaria, including both sexual and asexual reproduction. How does its morphology support these processes?

Que-2 (B) Write short note:(Any one): **(04)**

1) Outline the classification of Marchantia up to the family level .
2) What is the economic importance of bryophytes? Provide examples of their uses in various industries.

Que-3 (A) Describe in detail: (Any one) **(08)**

1) Discuss the classification of Equisetum up to the family level, and describe its morphology and anatomy. How do these characteristics support its reproduction?
2) Describe the classification, morphology, anatomy, and reproductive strategies of Nephrolepis, focusing on the family level. What adaptations enable its survival and reproduction in diverse habitats?

Que-3 (B) Write short note:(Any one): **(04)**

1) What are the general characteristics of Pteridophytes, and why are they significant in various ecosystems?
2) Briefly outline the economic importance of Pteridophytes, providing examples of their applications in different industries.

Que-4 (A) Describe in detail: (Any one) **(09)**

1) Discuss the classification of Gymnosperms according to Sporne (1965), including major groups and their distinguishing features.
2) Examine the morphology and anatomy of Cycas, focusing on its leaflets and coralloid roots. How do these structures contribute to its reproductive success?

Que-4 (B) Write short note:(Any one): **(04)**

1) What are the general characteristics of Gymnosperms, and how do these features contribute to their adaptation in various environments?
2) Briefly discuss the economic importance of Gymnosperms, providing examples of their uses in different industries.

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