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63(FY)(Sem-2)/MAJ2/BOTMAJ1024

2024

BOTANY

Paper : BOTMAJ1024

(Archegoniate)

Full Marks : 50

Pass Marks : 20

Time : Two hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer : $1 \times 5 = 5$
- (i) Barrel-shaped pores are found in-
- (a) Riccia
 - (b) Marchantia
 - (c) Pellia
 - (d) Anthoceros

Contd.

(ii) Pseudoelaters are characteristic of the sporophyte of -

- (a) Funaria
- (b) Anthoceros
- (c) Riccia
- (d) Marchantia

(iii) Hyaline and retort cells are found in the leaves of-

- (a) Andreaea
- (b) Polytrichum
- (c) Pogonatum
- (d) Sphagnum

(iv) Winged seeds are present in-

- (a) Pinus
- (b) Cycas
- (c) Gnetum
- (d) None of the above

(v) Gymnosperms originated in-

- (a) Coenozoic
- (b) Palaeozoic

(c) Mesozoic

(d) Pre-Cambrian

2. Answer the following questions (**any five**):
2×5=10

- (a) What do you mean by alternation of generation in Archegoniate?
- (b) What is gemma cup? Mention its function.
- (c) Write the systematic position of psilotum.
- (d) Mention the xerophytic characters of Cycas leaf.
- (e) What is the common name of Equisetum? Name a common Equisetum species found in Assam.
- (f) What is rhizophore? Mention its function.
- (g) Define apospory and apogamy.

3. Answer the following questions (**any five**):
5×5=25

- (a) Write about the anatomical structure of the thallus of Marchantia.

- (b) Why are pteridophytes regarded as the earliest of vascular plants? Discuss briefly.
- (c) Write about the sporophytic structure of Funaria.
- (d) What is fossil? Write a note on the sporophytic plant body of Rhynia.
- (e) What is heterosporous habit? Name two heterosporous Indian Pteridophyte.
- (f) Write a note on the prothallus of Pteris.
- (g) With proper diagram describe the anatomy of the needle of Pinus.
- (h) Write an account on the affinities of Gnetum with angiosperms.

4. Answer the following questions (**any one**):
10

- (a) Describe the ecological and economic importance of Bryophyta. 5+5=10
- (b) What is stele? Discuss with suitable sketches about the various types of stele found in Pteridophytes. 2+8=10