

Roll No.

Total Pages : 3

GSE/M-20

1487

BOTANY

(Diversity of Archegoniates)

Paper-I

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *five* questions in all, selecting *two* questions from each unit. Question No. 1 is compulsory. Illustrate your answers with suitable diagrams

Compulsory Question

1. Answer briefly :

- (a) What are leptoids?
- (b) Name the *two* types of scales present in *Marchantia* thallus.
- (c) Name the central sterile tissue present in the capsule of *Anthoceros*.
- (d) Define Apospory.
- (e) Differentiate between leptosproangiate and eusporangiate type of sporangia in pteridophytes.
- (f) Why are pteridophytes known as vascular cryptogams.
- (g) What are resurrection plants? Give an example.
- (h) Name *two* identified species of *Rhynia*. (8×1=8)

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[P.T.O.]

UNIT-I

2. Write brief notes on :
- (a) V.S. of thallus of *Marchantia*.
 - (b) Gemmae of *Marchantia*.
 - (c) Antheridiophore of *Marchantia*. (3+2+3)
3. Give a comparative account of the sporophyte of *Marchantia* and *Anthoceros*. 8
4. Write brief notes on :
- (a) Androecia of *Anthoceros*.
 - (b) Male receptacle of *Funaria*. (4+4)
5. Write brief notes on :
- (a) Peristome teeth.
 - (b) Protonema of *Funaria*.
 - (c) Archegonium of Bryophytes.
 - (d) T.S. of stem axis of *Funaria*. (2+2+2+2)

UNIT-II

6. Write brief notes on :
- (a) Anatomy of stem of *Selaginella*.
 - (b) Germination of megaspore in *Selaginella* leading upto the stage of fertilization. (4+4)

7. Write brief notes on :
- (a) Structure of sporangiferous spike of *Selaginello*.
 - (b) Spores of *Equisetum*.
 - (c) Xerophytic characters of *Equisetum* anatomically and morphologically. (4+2+2)
8. Write brief notes on :
- (a) Strobilus of *Equisetum*.
 - (b) Draw the diagram of V.T.S. of leaflet (fertile) of *Pteris*. Add a brief note on the main features of it.
 - (c) Differentiate between siphonostele and dictyostele. (4+3+1)
9. What do you understand by alternation of generation? Discuss it with reference to life history of *Pteris*. 8
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