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2 SEM TDC BOTH (CBCS) C 4

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(June/July)

BOTANY

(Core)

Paper : C-4

(Archegoniate)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Choose the correct answer of the following :

1×5=5

- (a) Spores of pteridophytes are haploid/
diploid / triploid / tetraploid.
- (b) Three-chambered sporangium is found
in *Lycopodium* / *Selaginella* / *Equisetum*
/ *Psilotum*.
- (c) *Rhynia* is known from Silurian /
Ordovician / Cambrian / middle
Devonian.

(2)

- (d) Gymnospermic endosperm is haploid / diploid / triploid / tetraploid.
- (e) Reticulate venation is found in the leaves of *Cycas/Pinus/Ginkgo/Gnetum*.
2. Write short notes on any *three* of the following : $4 \times 3 = 12$
- (a) Sporophyte of *Marchantia*
- (b) Merits of telome theory
- (c) Xerophytic characters of gymnosperm
- (d) Process of fossilization
3. With suitable sketch, compare the thallus structure of *Riccia*, *Marchantia* and *Anthoceros*. Which is most primitive according to your opinion and why? $9 + 3 = 12$

Or

- Describe the following : $6 + 6 = 12$
- (a) Sporophyte of *Polytrichum*
- (b) Ecological importance of bryophyte
4. What is stele? Give an account of the stelar organization in pteridophytes from evolutionary point of view. Give suitable diagram. $2 + 7 + 3 = 12$

(3)

Or

- Write notes on the following : $6 + 6 = 12$
- (a) Morphological nature of rhizophores in *Selaginella*
- (b) Sporocarp of *Marsilea*
5. Write short notes on any *three* of the following : $4 \times 3 = 12$
- (a) Development of male gametophytes of *Pinus*
- (b) *Psilophyton*
- (c) Fern like characters of *Cycas*
- (d) Angiospermic characters of *Gnetum*
- (e) Distribution of gymnosperms in India