Total No. of Printed Pages—3

2 SEM TDC BOTH (CBCS) C 4

2022

(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.

(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 : 4×3=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

(Continued)

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 : 4×3=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