Total No. of Printed Pages—3

2 SEM TDC BOTH (CBCS) C 4

2023

(May/June)

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. Fill in the blanks : 1×5=5

(a) The lid like structure found over moss capsule is called _____.

(b) The gametophyte of fern is commonly known as _____.

(c) Generally the xylem of gymnosperms lacks _____ tissue.

(d) Formation of gametophyte from sporophyte without spore formation is called _____.

(e) Non-vascular land plants appeared in _____ period.

2. Write short notes on any *three* of the following : 4×3=12

(a) Adaptive characters of archegoniate to survive on land

(b) Range of thallus organization in Bryophytes

(c) "Ginkgo is a living fossil." Justify the statement.

(d) Describe the process of fossilization.

3. With suitable sketch describes the evolution of sporophytes in bryophytes. Which one is most primitive according to your opinion? 7+3+2=12

Or

Describe any *two* of the following : 6×2=12

(a) Antheridiophore and Archegoniophore

(b) Characteristic features of class Hepaticopsida and Bryopsida

(c) Economic importance of bryophytes

4. Distinguish between homospory and heterospory. Describe the heterospory nature of *Selaginella* with suitable diagram. Mention the significance of heterospory in seed habit. 2+7+3=12

Or

Write notes on the following : 6×2=12

(a) Spore producing organs of *Equisetum* and *Ophioglossum*

(b) Prothallus of *Lycopodium* with suitable diagram.

5. Write short notes on any *three* of the following : 4×3=12

(a) Xerophytic characters of gymnosperms

(b) Female cone of *Pinus*

(c) Normal roots and coralloid roots of *Cycas*

(d) Spore bearing organs of *Psilophyton* and *Rhynia*

(e) Economic importance of *Ginkgo*

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