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2 SEM TDC BOTH (CBCS) C 4

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(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.

(2)

- (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 : $4 \times 3 = 12$

- (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 : $6 \times 2 = 12$

- (a) Antheridiophore and Archegoniophore
- (b) Characteristic features of class Hepaticopsida and Bryopsida
- (c) Economic importance of bryophytes

(3)

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

Or

Write notes on the following : $6 \times 2 = 12$

- (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 : $4 \times 3 = 12$

- (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*
