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3 (Sem-2/CBCS) BOT HC 2

2024

**BOTANY**

(Honours Core)

Paper : BOT-HC-2026

( *Archegoniate* )

Full Marks : 60

Time : Three hours

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

1. Answer the following questions : 1×7=7

- (i) What is coralloid root ?
- (ii) Name *one* common 'club-moss' pteridophyte.
- (iii) The female sex organ in Riccia and Funaria is
  - (a) archegonium
  - (b) antheridium
  - (c) oospore
  - (d) None of the above

*(Choose the correct answer)*

Contd.

(iv) Name the tallest living gymnosperm.

(v) Mention the name of an aquatic fern.

(vi) The ovuliferous scale of Pinus is a part of

(a) megasporophyll

(b) microsporophyll

(c) ovule

(d) dwarf shoot

(Choose the correct answer)

(vii) Formation of elaters is characteristics of \_\_\_\_\_ bryophytes.

(Fill in the blank)

2. Write short answer of the following :

2×4=8

(i) Write the name of different types of stele found in pteridophytes.

(ii) Mention *two* angiospermic characters of the ovule of Gnetum.

(iii) Mention the role of bryophytes in ecological succession.

(iv) What do you understand by synangium ?

3. Answer the following questions : **(any three)**

5×3=15

(i) Write a short note on economic importance of Pinus.

(ii) Describe briefly the range of thallus organisation of Bryophytes.

(iii) 'Ginkgo is a living fossil.' Justify the statement.

(iv) Describe briefly the Telome theory.

(v) Describe briefly the sporophytes of polytrichum.

4. Write descriptive answer of the following questions : **(any three)**

10×3=30

(i) Give a comparative account of the male gametophyte in Cycas and Pinus with suitable diagram.

(ii) Describe the heterospory and seed habit in pteridophytes.

(iii) "Psilotum is considered to be very primitive among the pteridophytes." Explain.



(iv) Give a comparative account of sporophytic structure of Riccia and Marchantia.

(v) With the help of neat labelled diagram discuss the development of female gametophyte in Gnetum.

(vi) With the help of labelled diagram describe the sporophyte of Sphagnum.

