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(FYUGP)

(2nd Semester)

BOTANY

(MAJOR)

Paper : BCC-04

**[Archegoniate (Bryophytes, Pteridophytes
and Gymnosperm)]**

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

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

1. Write an account on the general characteristics of pteridophytes. Add a note on the alternation of generations. 9+6=15

Or

Write short notes on the following : $7\frac{1}{2} \times 2 = 15$

- (a) Early land plants with reference to *Rhynia*
(b) Unifying features of archegoniate

(2)

2. With suitable labelled diagrams, describe the gametophytic plant body and the structure of a mature sporogonium of *Anthoceros*. 7+8=15

Or

Write short notes on the following : $7\frac{1}{2} \times 2 = 15$

- (a) Asexual reproduction in *Marchantia*
- (b) Classification of bryophytes given by Proskauer (1957)

3. Describe the morphological characters and reproduction in *Selaginella*. 15

Or

Write short notes on the following : $7\frac{1}{2} \times 2 = 15$

- (a) Stellar evolution
- (b) Anatomy of strobilus in *Equisetum*

4. Give an account on the morphology and reproduction of *Cycas* with labelled diagrams. 15

Or

Write short notes on the following : $7\frac{1}{2} \times 2 = 15$

- (a) Paleobotany in relation to exploration of fossil fuels
- (b) Geological timescale

(3)

5. Write in detail about the dominant fossil flora of different ages. Mention in brief the types of fossils. 10+5=15

Or

Write short notes on any *two* of the following : 7½×2=15

- (a) Economic importance of pteridophytes
- (b) Anatomy of the leaf of *Pinus*
- (c) *Sphagnum*

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