

Total number of printed pages-3

3 (Sem-2/CBCS) BOT HC 1

2023

**BOTANY**

(Honours Core)

Paper : BOT-HC-2016

***(Mycology and Phytopathology)***

Full Marks : 60

Time : Three hours

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

1. Answer the following questions :  $1 \times 7 = 7$
- (a) Crozier formation is observed in \_\_\_\_\_.  
(Fill in the blank)
  - (b) What do you mean by systemic fungus ?
  - (c) Muriform conidia are present in \_\_\_\_\_.  
(Fill in the blank)
  - (d) What is dikaryotic life cycle ?

Contd.

(e) *Rhizopus* is commonly known as \_\_\_\_\_.  
(Fill in the blank)

(f) What is a cleistothecium ?

(g) What is the causal organism of Black Stem Rust of wheat ?

2. Answer the following in brief:  $2 \times 4 = 8$

(a) What are the chemical components of the fungal cell wall ?

(b) Difference between ascospores and basidiospores.

(c) What is clamp connection ?

(d) What is basidiocarp ?

3. Write short notes on **any three** of the following questions:  $5 \times 3 = 15$

(a) Methods of asexual reproduction in fungi

(b) Role of fungi in industry

(c) Diagnostic features of basidiomycetes

(d) Development of Ascus and ascospores in Ascomycetes

(e) Ectomycorrhizae and Endomycorrhizae

4. Answer **any three** of the following questions:  $10 \times 3 = 30$

(a) Write an elaborate description of citrus canker disease mentioning its control measures.

(b) Give an outline of viral diseases of plants. Discuss Tobacco Mosaic Virus (TMV) disease. Mention its control measure.

(c) Explain mushroom culture and its importance for society.

(d) Describe different methods of reproduction observed in lichen.

(e) Discuss briefly different methods of sexual reproduction observed in lower group of fungi.

(f) Describe degeneration of sex in fungi.

Total number of printed pages-4

3 (Sem-2/CBCS) BOT HC 2

2023

**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 question:  $1 \times 7 = 7$

(i) What is gemma CUP ?

(ii) Polytrichum is mainly —

(a) Heterothallic

(b) Homothallic

(c) Both (a) and (b)

*(Choose the correct answer)*

Contd.

(iii) The antherozoids of *Anthoceros* are

(a) Monoflagellate

(b) Biflagellate

(c) Quadriflagellate

(d) Multiflagellate

(Select the correct answer)

(iv) Mention the name of an aquatic fern.

(v) What is coralloid root ?

(vi) Name one Gymnosperm where xylem vessels i.e. tracheae is present.

(vii) Name one homosporic pteridophyte that found in India.

2. Write short answer of the following :  $2 \times 4 = 8$

(i) Why sporophyte of *Riccia* is considered simple in structure ?

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

(iii) Mention two xerophytic characters of *Pinus* leaf.

(iv) Write notes on synangium of *Psilotum*.

3. Answer the following questions : (any three)

$5 \times 3 = 15$

(i) What is transfusion tissue ? Explain briefly its function.

(ii) Economic importance of Bryophyta.

(iii) Describe briefly the sporophyte of *Polytrichum* with labelled diagram.

(iv) Why *Gnetum* is considered as most advanced of the Gymnosperm ?

(v) Compare the internal structure of early land plants *Cooksonia* and *Rhynia*.

4. Write descriptive answers of the following questions : (any three)  $10 \times 3 = 30$

(i) Describe the life history of *Marsilea* with special reference to its reproductive structure.

(ii) Give a comparative account of the development of the female gametophyte in *Cycas* and *Pinus*.

(iii) Why *Ginkgo biloba* is called living fossil ? Describe briefly its male and female cone with labelled diagram.  $4 + 6 = 10$

- (iv) Define Heterospory. Trace its origin in pteridophytes and point out its significance. 3+7=10
- (v) Give a comparative account of gametophytic structures of *Marchantia* and *Anthoceros*.
- (vi) With the help of labelled diagram describe the sporophyte of *Sphagnum*.
-