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(CBCS)

(1st Semester)

BOTANY

FIRST PAPER

(Cryptogams)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A—OBJECTIVE)

(Marks : 10)

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. Which of the following is a characteristic of cryptogams?

- (a) Flowering plant ()
- (b) Non-flowering plant ()
- (c) Plant that produces seeds ()
- (d) Plant that produces spores ()

2. According to F. E. Fritsch, algae are classified into how many classes?

(a) 9 ()

(b) 10 ()

(c) 11 ()

(d) 12 ()

3. The main storage product of Chlorophyceae is

(a) starch ()

(b) glycogen ()

(c) fat ()

(d) protein ()

4. *Polysiphonia* is a type of

(a) unicellular algae ()

(b) colonial algae ()

(c) filamentous algae ()

(d) thalloid algae ()

5. Zygomycotina are commonly known as

(a) bread moulds ()

(b) cup fungi ()

(c) sac fungi ()

(d) club fungi ()

6. What is the function of the apothecium in *Peziza*?

(a) To produce conidia ()

(b) To produce ascospores ()

(c) To absorb nutrients ()

(d) To photosynthesize ()

7. *Funaria* is a type of

(a) moss ()

(b) fern ()

(c) liverwort ()

(d) hornwort ()

8. How does *Marchantia* reproduce vegetatively?

- (a) By spores ()
- (b) By gemmae cups ()
- (c) By fragmentation ()
- (d) By seeds ()

9. What is the leaf structure of Filicopsida commonly known as?

- (a) Frond ()
- (b) Leaflet ()
- (c) Pinna ()
- (d) Stipule ()

10. *Psilotum* belongs to which division?

- (a) Bryophyta ()
- (b) Pteridophyta ()
- (c) Spermatophyta ()
- (d) Thallophyta ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write short notes on the following :

3×5=15

UNIT—I

1. Distinguishing characteristics of pteridophytes

OR

2. Classification of fungi

UNIT—II

3. Main characteristics of Cyanophyceae

OR

4. Reproductive structure of *Oedogonium*

UNIT—III

5. Vegetative structure of *Peziza*

OR

6. Main characteristics of Mastigomycotina

UNIT—IV

7. Gametophyte of *Funaria*

OR

8. Characteristics of Anthocerotopsida

UNIT—V

9. General characteristics of Lycopsidea

OR

10. Morphology of *Pteris*

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer the following questions :

10×5=50

UNIT—I

1. Describe the distinguishing characteristics of fungi. 10

OR

2. Write short notes on any *two* of the following : 5×2=10

- (a) Characteristics of algae
- (b) Classification of bryophytes
- (c) Classification of pteridophytes

UNIT—II

3. Describe the structure and reproduction of *Ectocarpus* with suitable diagram. 10

OR

4. Write short notes on any *two* of the following : 5×2=10

- (a) Main characteristics of Xanthophyceae
- (b) Reproduction in *Nostoc*
- (c) Life history of *Volvox*

UNIT—III

5. Describe the thallus structure and reproduction of *Puccinia* with the help of suitable diagram. 10

OR

- 6.** Write short notes on any *two* of the following : 5×2=10
- (a) Characteristics of Deuteromycotina
 - (b) Conidia of *Alternaria*
 - (c) Apothecium of *Peziza*

UNIT—IV

- 7.** Describe the structure and reproduction of *Anthoceros* with the help of suitable diagram. 10

OR

- 8.** Write short notes on any *two* of the following : 5×2=10
- (a) Characteristic features of Hepaticopsida
 - (b) Thallus structure of *Marchantia*
 - (c) Sporophyte of *Funaria*

UNIT—V

- 9.** Describe the morphology and reproduction of *Selaginella* with the help of suitable diagram. 10

OR

- 10.** Write short notes on any *two* of the following : 5×2=10
- (a) Characteristics of Sphenopsida
 - (b) Various types of stele
 - (c) Sexual reproduction in *Pteris*
