

**2 0 2 4**

( 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.** Coenobium is the characteristic feature of

- (a) *Nostoc* ( )
- (b) *Volvox* ( )
- (c) *Ectocarpus* ( )
- (d) *Polysiphonia* ( )

**2.** Which of the following does not contain chlorophyll?

- (a) Fungus ( )
- (b) Alga ( )
- (c) Bryophyta ( )
- (d) Pteridophyta ( )

**3.** Red algae are characterized by the presence of

- (a) fucoxanthin ( )
- (b) haematochrome ( )
- (c) phycoyanin ( )
- (d) phycoerythrin ( )

4. Algal cell wall is composed of  
(a) chitin ( )  
(b) cutin ( )  
(c) cellulose ( )  
(d) suberin ( )
5. Sexual reproduction is not found in  
(a) Ascomycotina ( )  
(b) Basidiomycotina ( )  
(c) Zygomycotina ( )  
(d) Deuteromycotina ( )
6. Mastigomycotina are also called  
(a) sac fungi ( )  
(b) zoosporic fungi ( )  
(c) club fungi ( )  
(d) zygote fungi ( )
7. The function of elater is  
(a) absorption of food ( )  
(b) conduction of sap ( )  
(c) spore dispersal ( )  
(d) to provide support ( )
8. The dominant generation in bryophyte is  
(a) capsule ( )  
(b) gametophyte ( )  
(c) sporophyte ( )  
(d) seta ( )
9. Heterospory is found in  
(a) *Selaginella* ( )  
(b) *Isoetes* ( )  
(c) *Marsilea* ( )  
(d) *Rhynia* ( )
10. Pteridophytes differ from other cryptogams in having  
(a) chlorophyll ( )  
(b) rhizoid ( )  
(c) sexual organs ( )  
(d) vascular tissue ( )

( SECTION : B—SHORT ANSWERS )

( Marks : 15 )

Write short notes on the following :

3×5=15

UNIT—I

1. Distinctive characteristics of fungi

**OR**

2. Distinguishing characteristics of algae

UNIT—II

3. Main characteristics of Chlorophyceae

**OR**

4. Morphology of *Volvox*

UNIT—III

5. Main characteristics of Ascomycotina

**OR**

6. Uredinial stage of *Puccinia*

UNIT—IV

7. General characteristics of Bryopsida

**OR**

8. Capsule of *Anthoceros*

UNIT—V

9. General characteristics of *Lycopsida*

**OR**

10. Reproduction in *Selaginella*

( SECTION : C—DESCRIPTIVE )

( Marks : 50 )

Answer the following questions :

10×5=50

UNIT—I

1. Write an account on the classification and characteristics of bryophytes.

10

**OR**

2. Write notes on any *two* of the following : 5×2=10  
(a) Classification of fungi  
(b) Characteristics of pteridophytes  
(c) Classification of algae

UNIT—II

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

**OR**

4. Write notes on any *two* of the following : 5×2=10  
(a) Characteristics of Rhodophyceae  
(b) Plant body of *Polysiphonia*  
(c) Reproduction of *Ectocarpus*

UNIT—III

5. Describe the structure and reproduction of *Peziza* with labelled diagram. 10

**OR**

6. Write notes on any *two* of the following : 5×2=10  
(a) Main characteristics of Deuteromycotina  
(b) Sexual reproduction in *Rhizopus*  
(c) Main characteristics of Basidiomycotina

UNIT—IV

7. Describe the life cycle of *Marchantia* with the help of suitable diagrams. 10

**OR**

8. Write notes on any *two* of the following : 5×2=10  
(a) General characteristics of Anthocerotopsida  
(b) Reproduction in *Funaria*  
(c) General characteristics of Hepaticopsida

UNIT—V

9. What is stele? Describe with a labelled diagram different kinds of stele found in pteridophytes. 10

**OR**

10. Write notes on any *two* of the following : 5×2=10  
(a) Characteristics of Psilopsida  
(b) Characteristics of Filicopsida  
(c) Reproduction in *Psilotum*

\*\*\*