

2023

(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. According to Fritsch (1935), algae are classified into _____ classes.

- (a) 10 ()
- (b) 11 ()
- (c) 9 ()
- (d) 12 ()

2. Pteridophytes differ from bryophytes in having :

- (a) spermatozoids ()
- (b) archaegonia ()
- (c) separate gametophyte ()
- (d) conducting system ()

3. The chloroplast present in *Volvox* is

- (a) cup shaped ()
- (b) ribbon shaped ()
- (c) star shaped ()
- (d) girdle shaped ()

4. Zoospores formed during asexual reproduction in Chlorophyceae are

- (a) non-flagellated ()
- (b) ciliated ()
- (c) flagellated ()
- (d) non-ciliated ()

5. Edible mushroom, e.g., *Agaricus* belongs to
 (a) Mastigomycotina ()
 (b) Deuteromycotina ()
 (c) Basidiomycotina ()
 (d) Zygomycotina ()
6. Which of the following does not have sexual cycle?
 (a) *Rhizopus* ()
 (b) *Alternaria* ()
 (c) *Puccinia* ()
 (d) *Peziza* ()
7. Hepaticopsida is also called
 (a) liverwort ()
 (b) hornwort ()
 (c) moss ()
 (d) None of the above ()
8. The antherozoids of *Funaria*
 (a) are uniflagellate ()
 (b) are multiflagellate ()
 (c) are biflagellate ()
 (d) do not have flagella ()
9. Star-shaped xylem core surrounded by phloem is known as
 (a) actinostele ()
 (b) haplostele ()
 (c) plectostele ()
 (d) mixed protostele ()
10. Heterospory is found in
 (a) *Psilotum* ()
 (b) *Pteris* ()
 (c) *Adiantum* ()
 (d) *Selaginella* ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write on the following :

3×5=15

UNIT—I

1. Distinguishing characteristics of pteridophytes

OR

2. Classification of bryophytes

UNIT—II

3. Main characteristics of Rhodophyceae

OR

4. Structure of *Nostoc*

UNIT—III

5. Main characteristics of Zygomycotina

OR

6. Structure of *Peziza*

UNIT—IV

7. General characteristics of *Bryopsida*

OR

8. Vegetative reproduction in *Marchantia*

UNIT—V

9. General characteristics of *Filicopsida*

OR

10. Vegetative reproduction in *Psilotum*

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

10×5=50

Answer the following :

UNIT—I

1. Briefly discuss the classification and characteristics of fungi.

10

OR

5×2=10

2. Write notes on any *two* of the following :

(a) Distinguishing characteristics of algae

(b) Classification of pteridophytes

(c) Distinguishing characteristics of bryophytes

[Contd.

UNIT—II

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

OR

4. Write notes on any *two* of the following : 5×2=10
- (a) Characteristics of *Phaeophyceae*
 - (b) Characteristics of *Chlorophyceae*
 - (c) Reproduction of *Polysiphonia*

UNIT—III

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

OR

6. Write notes on any *two* of the following : 5×2=10
- (a) Main characteristics of Basidiomycotina
 - (b) Telial stage of *Puccinia*
 - (c) Asexual reproduction of *Alternaria*

UNIT—IV

7. Describe thallus structure and reproduction of *Funaria* with the help of suitable diagram. 10

OR

8. Write notes on any *two* of the following : 5×2=10
- (a) Characteristics of Anthocerotopsida
 - (b) Sexual reproduction of *Marchantia*
 - (c) Asexual reproduction of *Anthoceros*

UNIT—V

9. Discuss the morphology and reproduction of *Pteris* with a suitable diagram. 10

OR

10. Write notes on any *two* of the following : 5×2=10
- (a) Characteristics of Psilopsida
 - (b) Characteristics of Siphonostele
 - (c) Morphology of *Selaginella*
