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(NEP—2020)

(1st Semester)

BOTANY (MAJOR)

(Phycology and Mycology)

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. Fritsch's classification of algae is not concerned with

- (a) pigmentation ()
- (b) genomics ()
- (c) reserve food products ()
- (d) flagellation ()

2. Algae that fix atmospheric nitrogen are

- (a) brown algae ()
- (b) cyanobacteria ()
- (c) green algae ()
- (d) red algae ()

3. Which one of the following is a red algae?

- (a) Rhodophyceae ()
- (b) Chlorophyceae ()
- (c) Liverwort ()
- (d) Phaeophyceae ()

4. The term 'isokontae' refers to algae having

- (a) two or more equal flagella ()
- (b) two or more unequal flagella ()
- (c) no flagellation but motile ()
- (d) no motile stages at all ()

5. Coenocytic mycelium is found in

- (a) Deuteromycotina ()
- (b) Ascomycotina ()
- (c) Basidiomycotina ()
- (d) Mastigomycotina ()

6. Slime moulds are members of

- (a) Ascomycotina ()
- (b) Myxomycotina ()
- (c) Mastigomycotina ()
- (d) Zygomycotina ()

7. The sexual spore of sac fungi is

- (a) zoospore ()
- (b) zygospore ()
- (c) ascospore ()
- (d) basidiospore ()

8. The endomycorrhizae are found in

- (a) herbaceous plant ()
- (b) grasses ()
- (c) woody plants ()
- (d) All types of plants ()

9. Reindeer moss is a lichen known as

- (a) *Usnea* ()
- (b) *Roccella* ()
- (c) *Cladonia* ()
- (d) *Parmelia* ()

10. Lichens that grow on stones are known as

- (a) saxicolous ()
- (b) corticolous ()
- (c) muscicolous ()
- (d) foliicolous ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write short notes on *five*, taking at least *one* from each Unit :

3×5=15

UNIT—I

- 1. Cell structure of *Nostoc*
- 2. Phytoplanktons

UNIT—II

- 3. Agar-agar
- 4. Use of algae as food

UNIT—III

- 5. Zygosporangium
- 6. Spore structure of *Alternaria*

UNIT—IV

- 7. Hartig network
- 8. Soredia

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer *five* questions, taking at least *one* from each Unit : 10×5=50

UNIT—I

1. Write down the life cycle of *Spirulina* with the help of suitable diagram. 10
2. Write notes on the following : 5×2=10
 - (a) Outline of Fritsch classification
 - (b) Algal bioprospecting

UNIT—II

3. Describe the reproduction and life history of *Ectocarpus* with suitable diagram. 10
4. Write notes on the following : 5×2=10
 - (a) Characteristics of Chlorophyceae
 - (b) Plant body of *Polysiphonia*

UNIT—III

5. Describe the life history of *Agaricus* with the help of a suitable diagram. 10
6. Write notes on the following : 5×2=10
 - (a) Ainsworth classification of fungi
 - (b) Important characteristics of sub-division Deuteromycotina

UNIT—IV

7. Give an account on the economic importance of fungi. 10
8. Write notes on the following : 5×2=10
 - (a) Types of mycorrhizae
 - (b) General characteristics of lichen
