

Time : Three Hours**Note :** (i) Attempt five questions in all.

(ii) Question No. 1 is compulsory.

(iii) Attempt four questions more, selecting **one** from each Unit.

(iv) Draw neat and well labelled diagrams supporting your answer.

1. (A) Fill in the blanks :

(i) White rust of crucifers is caused by

(ii) The whorls of lateral branches of limited growth in *Batrachospermum* are called

(iii) The fungal component of lichen is called

(iv) Fruiting bodies formed during asexual reproduction in *Colletotrichum* are called

(v) In many bacteria, the plasma membrane give rise to infoldings called

(vi) is a unicellular ascomycetes.

6×1=6

(B) Multiple Choice Questions :

(i) Which of the following is an edible fungus ?

(a) *Albugo*(b) *Agaricus*(c) *Puccinia*(d) *Ustilago*(ii) Which of the following spores of *Puccinia* are seen on Barberry leaf?

(a) Basidiospores

(b) Pycniospores

(c) Teliospores

(d) Uredospores

(iii) *Oscillatoria* reproduces vegetatively by :

(a) Homogonia

(b) Heterocysts

(c) Akinetes

(d) All of these.

(iv) Reserve food of brown algae is :

(a) Starch

(b) Glycogen

(c) Laminarian

(d) Protein

(v) Sea weeds mainly belong to :

(a) Chlorophyceae

(b) Phaeophyceae

(c) Rhodophyceae

(d) Xanthophyceae

(vi) Wart like swellings on upper side of lichen thallus having algal cells mixed with fungal hyphae is called :

(a) Cephalodia

(b) Cyphellae

(c) Soredia

(d) Isidia.

6×1=6

Unit-I

2. Describe briefly sexual reproduction in *Cladophora* with the help of suitable diagrams. 6
3. Write notes on any two of the following :
 - (a) Coenobium of *Volvox*
 - (b) Asexual reproduction in *Vancharia*
 - (c) Bacterial cell structure
 - (c) Vegetative structure of *Oscillatoria*. 3,3

Unit-II

4. Describe post fertilization changes in the *Batrachospermum*. 6
5. Write notes on any two of the following :
 - (a) T. S. thallus of *Dictyota*
 - (b) Algae as food
 - (c) Asexual reproduction in *Dictyota* 3,3

Unit-III

6. (a) Describe asexual reproduction in *Rhizopus*.
(b) Give symptoms of white rust of crucifers. 3,3
7. Give diagrammatic representation of three different type of life cycles in yeast giving suitable examples. 6

Unit-IV

8. Write notes on any two of the following :
 - (a) Uredospores in *Puccinia*
 - (b) Asexual reproduction in *Colletotrichum*
 - (c) T.S. of lichen thallus
 - (d) Sexual reproduction in *Ustilago* 3,3
9. Describe in detail the structure of mature basidiocarp in *Agaricus*. 6