

(i) Printed Pages: 3

Roll No. ....

(ii) Questions : 9

Sub. Code : 

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Exam. Code : 

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B.A./B.Sc. (General) 1<sup>st</sup> Semester

1128

BOTANY

Paper-A : Plant Diversity-I

Time Allowed : Three Hours] [Maximum Marks : 36

Note :— (1) Attempt five questions in all.

(2) Question No. 1 is compulsory.

(3) Attempt four more questions, selecting one from each unit.

(4) Draw diagrams wherever necessary.

1. (A) Fill in the blanks :

(i) The filament of *Oscillatoria* is called \_\_\_\_\_.

(ii) The reserve food material in *Dictyota* is \_\_\_\_\_.

(iii) \_\_\_\_\_ is a unicellular ascomycete.

(iv) Multinucleate gametes in *Rhizopus* are known as \_\_\_\_\_.

(v) The plant body of *Volvox* is multicellular motile colony called as \_\_\_\_\_.

(vi) Alternate host of *Puccinia graminis tritici* is \_\_\_\_\_.

6×1=6

(B) Multiple choice questions :

(i) Gongrosira stage is found in :

- (a) *Oscillatoria*      (b) *Cladophora*  
(c) *Vaucheria*      (d) *Volvox*

(ii) Chloroplasts are reticulate in :

- (a) *Vaucheria*      (b) *Dictyota*  
(c) *Volvox*      (d) *Cladophora*

(iii) Wart-like swellings on the upper surface of lichen thallus are :

- (a) *Cephalodia*      (b) *Cyphellae*  
(c) *Soredia*      (d) *Isidia*

(iv) *Colletotrichum falcatum* causes :

- (a) Red rot of sugarcane  
(b) Loose smut of wheat  
(c) Black rust of wheat  
(d) White rust of crucifers

(v) Glomerule occurs in :

- (a) *Dictyota*  
(b) *Vaucheria*  
(c) *Batrachospermum*  
(d) *Volvox*

(vi) In *Oscillatoria* reproduction occurs by :

- (a) Conjugation      (b) Budding  
(c) Hormogones      (d) Sporulation       $6 \times 1 = 6$

## UNIT—I

2. With the help of suitable diagrams describe the sexual reproduction in *Vaucheria*. 6
3. Write notes on :
  - (a) Thallus structure of *Volvox*
  - (b) Cell structure of Bacteria. 3,3

## UNIT—II

4. Briefly discuss the economic importance of algae as food and in industry. 6
5. Describe the following :
  - (a) Post fertilization changes in *Batrachospermum*
  - (b) Asexual reproduction in *Dictyota*. 3,3

## UNIT—III

6. Give an account of the causal organism, symptoms and disease cycle of white rust of crucifers. 6
7.
  - (a) Explain thallus of *Rhizopus*.
  - (b) Give a diagrammatic sketch to illustrate the life cycle of *Saccharomyces cerevisiae*. 3,3

## UNIT—IV

8. Describe the life cycle of *Puccinia graminis tritici* on wheat. 6
9. Write notes on any **two** of the following :
  - (a) Acervulus of *Colletotrichum*
  - (b) Basidiocarp of *Agaricus*
  - (c) Symptoms of loose smut of wheat. 3,3