

(i) Printed Pages : 4

Roll No. ....

(ii) Questions : 9

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Exam. Code : 

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

1125

BOTANY

Paper : A : Plant Diversity-I

Time Allowed : Three Hours]

[Maximum Marks : 36

- Note :-** (1) Attempt **five** questions in all. Question no. I is compulsory.  
(2) Attempt **four** more questions, selecting **one** from each Unit.  
(3) Draw diagrams wherever necessary.

I. (A) Fill in the blanks :

- (i) A colony with a definite shape, size and arrangement of cells is known as \_\_\_\_\_.
- (ii) The Chloroplast of *Cladophora* is \_\_\_\_\_.
- (iii) Chlamydomonas stage multiplies indefinitely by \_\_\_\_\_.
- (iv) In *Rhizopus* sexual reproduction takes place by \_\_\_\_\_.
- (v) In *Albugo* the zoospores are \_\_\_\_\_.  
(Shape and flagellation)
- (vi) The cell wall in bacteria is composed of \_\_\_\_\_.

6×1=6

(B) Multiple choice questions :

(i) Which of the following is a prokaryotic algae ?

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

(ii) The principal pigment of Phaeophyceae is :

- (a) Phycoerythrin
- (b) Phycocyanin
- (c) Siphonoxanthin
- (d) Fucoxanthin

(iii) Oogamous sexual reproduction is seen in :

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

(iv) All fungi are :

- (a) Symbionts
- (b) Parasites
- (c) Saprophytes
- (d) Heterotrophs

(v) Loose smut of wheat is caused by :

- (a) *Albugo*
- (b) *Ustilago*
- (c) *Puccinia*
- (d) *Colletotrichum*



(vi) In *Agaricus* fruiting body is made up of :

- (a) Primary mycelium
- (b) Secondary mycelium
- (c) Tertiary mycelium
- (d) Haploid mycelium

6×1=6

### UNIT-I

II. (a) Describe briefly sexual reproduction in *Vaucheria* with the help of suitable diagrams.

(b) Describe asexual reproduction in *Volvox*. 3,3

III. Write notes on any **three** of the following :

(a) Movements in *Oscillatoria*

(b) Nutrition in bacteria

(c) Systematic position of Xanthophyceae

(d) Thallus Structure in *Cladophora*. 3×2=6

### UNIT-II

IV. (a) Describe briefly the post-fertilisation changes in *Batrachospermum*.

(b) Discuss the role of algae in Agriculture. 4,2

V. Give the diagrammatic representation of the life-history of *Dictyota*.

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### UNIT-III

VI. Give the name of causal organism and symptoms of white rust of Crucifers. Give the asexual reproduction of the Pathogen.

1,2,3

VII. Attempt any **two** of the following :

- (a) Sexual reproduction in *Rhizopus*
- (b) Haplo-diplobiontic life cycle in Yeasts
- (c) Thallus structure in Yeasts.

2×3=6

### UNIT-IV

VIII. (a) What is a Heteroecious rust ? Describe the life history of *Puccinia graminis-tritici* on wheat.

1,3

(b) Write a note on Red rot of Sugarcane.

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IX. Attempt any **two** of the following :

- (a) External morphology of Lichen Thallus
- (b) Loose smut of wheat
- (c) Basidio carp of AGARICUS.

3×2=6