

2125
B.A./B.Sc. (General) First Semester
Botany
Paper – A: Plant Diversity - I

Time allowed: 3 Hours

Max. Marks: 36

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit. Draw neat and well labelled diagrams wherever necessary.

x-x-x

I. (A) Fill in the blanks

1. The bacterial cell wall is composed mainly of _____
2. Pigment found in Red green algae are _____
3. Reserve food material of brown algae is _____
4. Glomerule in *Batrachospermum* is _____
5. Agar agar is obtained from _____
6. Dolipore septa are produced in _____

(B) Multiple choice Questions

1. The flagella of *Vaucheria* are:
 - a) Whiplash and tinsel type
 - b) Equal and apical
 - c) Unequal and lateral
 - d) Absent
2. *Rhizopus* is characterized by:
 - a) Septate hyphae
 - b) Asexual spores called conidia
 - c) Coenocytic mycelium
 - d) Absence of sporangia
3. *Ustilago tritici* infects wheat during:
 - a) Germination
 - b) Seedling stage
 - c) Flowering stage
 - d) Seed formation stage
4. In lichens, the fungal component is known as the _____, while the algal component is called the _____.
 - a) Mycobiont; Phycobiont
 - b) Phycobiont; Mycobiont
 - c) Haustorium; Thallus
 - d) Sorus; Thallus

(2)

5. Rhizopus is commonly known as:

- a) Bread mold
- b) Mushroom
- c) Yeast
- d) Rust fungus

6. The dikaryotic phase in the life cycle of fungi refers to a stage where:

- (a) Two haploid nuclei coexist in a single cell
- (b) A diploid zygote forms
- (c) Two gametes fuse
- (d) Meiosis occurs

(12x1)

UNIT - I

II. Write illustrated notes on

- a) Cell Structure of Bacteria
- b) Coenobium of Volvox
- c) Hormogonia and Necridia of *Oscillatoria*

(3x2)

III. Write note on Asexual Reproduction in *Vaucheria*.

(6)

UNIT - II

IV. Write note on Post fertilization changes in *Batrachospermum*, illustrate your answer. (6)

V. Write illustrated notes on:-

- a) Economic importance of Algae in industry
- b) Sexual reproduction in Dictyota

(2x3)

UNIT - III

VI. Write note on causal organism, symptoms and life cycle of White rust of crucifers. (6)

VII. Describe in detail Life cycle *Saccharomyces cerevisiae*. Illustrate your answer. (6)

UNIT - IV

VIII. Describe in details life cycle of *Puccinia graminis* on wheat Plant. (6)

IX. Write notes on:-

- a) Types of Lichens
- b) Ret Rot of Sugarcane
- c) Gills of *Agaricus*

(3x2)