

2041
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. I which is compulsory and selecting one question from each Unit. Draw neat and well labeled diagrams wherever necessary.

x-x-x

I. A. Fill in the blanks:-

- a) _____ structure in bacterial cell plays an important role in genetic engineering.
- b) Oscillatoria reproduces asexually by _____.
- c) Loose smut of wheat is caused by _____.
- d) _____ plays an important role as air pollution indicator.
- e) Batrachospermum is also commonly known as _____.
- f) Synzoospore are found in _____.

(6x1)

B. Multiple Choice Questions.

- a) Coenocytic hyphae thallus is found in
 - (i) Vaucheria
 - (ii) Rhizopus
 - (iii) Albugo
 - (iv) All of these
- b) Female reproductive organs in red algae is
 - (i) Oogonium
 - (ii) Sporogonium
 - (iii) Carpogonium
 - (iv) Archegonium
- c) Appearance of dichotomy in thallus due to eversion is seen in
 - (i) Cladophora
 - (ii) Dictyota
 - (iii) Rhizopus
 - (iv) Batrachospermum
- d) Class of fungi which takes sexual reproduction
 - (i) Ascomycetes
 - (ii) Basidiomycetes
 - (iii) Phycomycetes
 - (iv) Deuteromycetes
- e) In many bacteria, the plasma membrane gives rise to infoldings called
 - (i) Mesosome
 - (ii) Lysosome
 - (iii) Lomasome
 - (iv) Acrosome

P.T.O.

(2)

f) Rhizopus is commonly called

(i) Black mould

(ii) Pink mould

(iii) Green mould

(iv) Puff ball

(6x1)

UNIT – I

II. Draw diagrammatic life cycle of Cladophora. (6)

III. Write short notes on any two of the following:-

a) Describe sexual reproduction in Vaucheria

b) Describe coenobium

c) Draw well labeled structure of a Bacterial cell. (3+3)

UNIT – II

IV. Draw diagrammatic life cycle of Dictyota and explain its sexual reproduction. (6)

V. Write short notes on any two of the following:-

a) Use of algae as food

b) Asexual reproduction of Dictyota

c) Chytridia stage of Batrachospermum (3+3)

UNIT – III

VI. Describe the casual organism, symptoms and disease cycle of white rust of crucifers. (6)

VII. a) Explain asexual reproduction in Rhizopus.

b) Draw diagrammatically life cycle of Saccharomyces cerevisiae (3+3)

UNIT – IV

VIII. Draw diagrammatically life cycle of Puccinia graminis tritici. (6)

IX. Write short notes on any two of the following:-

a) Basidiocarp of Agaricus

b) Asexual reproduction in Ustilago

c) Different types of lichen thalli (3+3)