

Sr. No. of question paper : 1563
Unique paper code : 2162581101
Name of the Paper : Microbial World and Plant Diversity
Name of the Course : B.Sc. ALS with Agro-Chemicals And Pest Management
Semester : I
Duration : 2 hours
Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. at the top immediately upon receipt of this question paper.
2. Attempt four questions in all, including Question No.1 which is compulsory.
3. Answer all parts of each question together
4. Draw diagrams wherever required.

Q. 1 (A) Fill in the blanks:

1x5=5

- i. The most important constituent of the cell wall of bacteria _____.
- ii. Most plant viruses contains _____ as their genetic material.
- iii. The non-motile sporengiospores in fungi are called _____.
- iv. In anisogamous sexual reproduction during gametes are morphologically as well as physiologically _____.
- v. The _____ are hygroscopic, spindle shaped sterile cells with spiral thickenings found in *Marchantia*.

(B) Define:

1x5=5

- i. Prosenchyma
- ii. Basidium
- iii. Coenobium
- iv. Mycoplasma
- v. Diakaryon

(C) Match the following

1x5=5

- | | |
|----------------------|------------------|
| a) Prophage | i) Philopore |
| b) <i>Funaria</i> | ii) Winged seed |
| c) <i>Volvox</i> | iii) Trabacullae |
| d) <i>Pencillium</i> | iv) Phialides |
| e) <i>Pinus</i> | v) Virus |

Q.2 Differentiate between the following (any three):

3x5=15

- a) Lytic and Lysogenic cycle
- b) Bryophytes and Pteridophytes
- c) Eubacteria & archaeobacteria
- d) Natural and sexual system of classification

Q.3. Write short notes on the following (any three):

3x5=15

- a) Structure of T4-bacteriophage
- b) Carposporophyte
- c) Xerophytics and hydrophytic characters of *Equisetum*.
- d) Discuss the mode of reproduction in bacteria.

Q.4 Attempt any two from the following

a) Enumerate the various adaptation to land plants

7.5

b) Discuss various characteristics features of angiosperms.

7.5

c) Discuss in brief the key differences between generalized and specialized transduction in bacteria.

7.5

Q.5. Draw well labelled diagrams of the following (any three):

3x5=15

- a) Sporangiphore of *Rhizopus*
- b) Sporophyte of *Marchantia*
- c) Structure of Bacterial cell
- d) Sporangiphore of *Pteris*