

A-871

Total Pages : 3

Roll No.

BOT-501

M.Sc. BOTANY (MSCBOT)

Biology and diversity of Viruses, Bacteria and Fungi

1st Year Examination, 2024 (June)

Time : 2:00 Hrs.

Max. Marks : 70

Note :- This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

Section-A

Long Answer Type Questions 2×19=38

Note :- Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

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(1)

P.T.O.

1. What are viruses ? Describe their general characteristics, isolation and purification methods in detail.
2. Describe any *two* in detail :
 - (a) Mode of nutrition in bacteria
 - (b) Economic importance of bacteria
 - (c) Flagellation in bacteria
3. Describe general characteristics of fungi. Discuss the various methods of reproduction in fungi.
4. Give a detailed description of the various symptoms of diseases caused by viruses in plants.
5. Describe the following :
 - (a) Heterothallism in Zygomycotina
 - (b) Characteristic features of club fungi and sac fungi

Section–B

Short Answer Type Questions 4×8=32

Note :- Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. What do you understand by mycoplasma ? Briefly discuss any one mycoplasmal disease of plant which you have studied.

2. Differentiate between the following :
 - (a) Autotrophic and Heterotrophic bacteria
 - (b) Bacteria and Viruses
3. Explain the following :
 - (a) Bacterial conjugation
 - (b) Cyanobacteria and their role in agriculture
 - (c) Cleistothecium and apothecium
 - (d) Heterothallism and heterokaryosis
4. Write about bacteriophage with suitable diagram.
5. Why the deuteromycotina are called as “Fungi imperfectii” ?
6. Write about the role of fungi in industry, medicine and as food.
7. Lytic and Lysogenic life cycle.
8. Explain with suitable diagrams the ultra structure of fungal cell and composition of the cell wall.
