A–1204

Total Pages : 3 **Roll No. .....**

MSCBOT-501

M.Sc. Botany (MSCBOT)

Fungi, Lichens, Viruses and Bacteria

Examination February, 2026

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.

1. Describe the various methods of reproduction in lichens. Write a detailed note on the economic and ecological significance of lichens.

2. Discuss the genetic recombination in bacteria, in detail.

3. What is *Mycoplasmal* ? Describe the structure and reproduction of *Mycoplasma*.

4. Describe any two of the following :

   (a) Asexual reproduction in fungi

   (b) Fruiting body of Ascomycotina

   (c) Major groups of bacteria

5. Mention the characteristics features of Deuteromycotina. Describe the vegetative structure and reproduction of *Alternaria*.

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. Give brief account about the structure and reproduction of Actinomycetes.

2. Discuss the reproduction of Rickettsia.

3. Explain about modes of nutrition in Bacteria, in brief.

4. Differentiate between any two of the following :

   (a) *Mucor* and *Rhizopus*

   (b) Gram-positive and Gram-negative bacteria

   (c) Lysis and Lysogenic cycle

5. Write a note general characteristic of Mastigomycotina.

6. Describe the mode of transmission of viruses.

7. Highlight the role of fungi in Industry and agriculture.

8. Write short notes on any two of the following :

   (a) Phylogeny of fungi

   (b) Bacteriophage

   (c) Economic importance of bacteria in Medicine

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