A-0010

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

MSCBOT-501

M.Sc. Botany (MSCBOT)

(Fungi, Lichens, Viruses and Bacteria)

Examination, June 2025

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 structure and methods of reproduction in lichens. Give a detailed account of the economic importance and ecological significance of lichens.

2. Write an essay on range of vegetative structure and economic importance of fungi.

3. Describe the followings :

   (a) Structure of bacteriophage

   (b) *Fusarium*

   (c) Replication of virus

4. What are mycoplasmas ? Write any three plant diseases caused by them with control measures.

5. Discuss the salient features of Ascomycotina. Briefly describe the structure and reproduction of *Saccharomyces* with labelled diagrams.

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. Outline the classification of fungi proposed by Ainsworth.

2. Explain the ultrastructure of bacterial cell.

3. Describe different types of fruiting bodies found in ascomycetes fungi.

4. Differentiate between the following :

   (a) Rust and smut

   (b) Primary and secondary zoospore

   (c) Zoospore and conidia

   (d) Lichens and mycorrhizae

5. Describe the mode of sexual reproduction of fungi.

6. Briefly explain the heterothallism and its types. Discuss the significance of heterothallism.

7. Describe the economic importance of bacteria in detail.

8. Discuss the systematic position and reproduction of *Collelotrichum.*

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