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# MSCBOT-501

Fungi, Lichens, Viruses and Bacteria

M.Sc. Botany (MSCBOT) 1st Semester Examination, 2022 (Dec.)

### Time : 2 Hours]

### 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.

# SECTION-A (Long Answer Type Questions)

**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.

(2×19=38)

**1.** What are fungi? Give the classification of fungi upto order level.

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- **2.** Write salient feature of Ascomycotina and discuss the characteristic spores ascomycetes.
- **3.** Describe briefly the nature of plant viruses and the method of their transmission.
- **4.** Describe the structure of bacterial cell and importance of bacteria in human life.
- 5. Describe structure and economic importance of lichens.

### SECTION-B

## (Short Answer Type Questions)

- **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. (4×8=32)
- 1. What are lichens? Describe different methods of reproduction in lichens.
- **2.** Differentiate the following :
  - (a) Gram-positive and Gram-negative bacteria.
  - (b) Smut and Rust.
- **3.** Describe in detail the various symptoms of plants attacked by fungi.
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- 4. Describe the life cycle of *Puccinia* or *Taphrina*.
- 5. Write short notes on any *two* of the following :
  - (a) Heterothallism.
  - (b) Powdery mildews.
  - (c) Heterokaryosis.
- 6. Discuss spore formation in fungi.
- 7. What are bacteriophages? Discuss their replication.
- **8.** Describe mode of nutrition in fungi.