

**C073**

Total Pages : 3

Roll No. ....

## **MSCBOT-501**

**Fungi, Lichens, Viruses and Bacteria**

M.Sc. BOTANY (MSCBOT)

Ist Semester Examination, 2022 (June)

**Time : 2 Hours]**

**Max. Marks : 80**

**Note :** This paper is of Eighty (80) 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 Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

1. Describe the classification of fungi as proposed by Alexopoulos and compare it with any recent system of classification of fungi by giving the important characteristic features.

2. Discuss the various methods of reproduction in lichens. What is the economic and ecological significance of lichens?
3. Discuss the life cycle of *Puccinia graminis* with the suitable diagram.
4. Discuss the genetic recombination in bacteria in detail.
5. Describe the morphology and taxonomy of group Rickettsiae. Discuss the methods of transmission and economic importance of this group?

## SECTION-B

### (Short Answer Type Questions)

**Note :** Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. Discuss the mode of nutrition in fungi in brief.
2. Discuss the characteristic features and functions of Actinomycetes.
3. Highlight the role of fungi in agriculture.
4. Classify the lichen according to their growth forms and nature of fungal components.

5. Briefly discuss the different fruiting bodies in Ascomycotina.
  6. What do you understand by :
    - (a) Clamp connection.
    - (b) Dolipore septum.
    - (c) *Taphrina*.
    - (d) Haustoria.
    - (e) Gram-positive and Gram-negative bacteria.
  7. Discuss the systematic position of *Fusarium* and its economic importance.
  8. Discuss the different theories of origin of viruses.
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