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**BOT-501**

**M.Sc. (Botany) Ist Year  
Examination Dec., 2023**

**BIOLOGY AND DIVERSITY OF  
VIRUSES, BACTERIA AND FUNGI**

**Time : 2 Hours]**

**[Max. Marks : 70**

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*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 there in. 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. Give a detailed description of the various symptoms of diseases caused by viruses in plants.
2. 'Bacteria do not reproduce exactly by sexual reproduction but they do share genetic material'. Justify the following statement by giving the suitable method for doing so that supports the statement.
3. What do you understand by fungi ? Explain the classifications of fungi proposed by Ainsworth (1973) and Alexpoulos & Mims (1979).
4. Write a detailed note on the economic importance of fungi in daily life.
5. Describe the different methods of reproduction in *Rhizopus stolonifer* along with their complete life cycle with the help of suitable diagram.

### **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 is the dolipore septum ? What distinguishes it from a simple septum ?
2. What do you understand by mycoprotein ?

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( 2 )

3. Write a short note on nematophagous fungi.
4. Write an essay on bacteriophage.
5. What is archaebacteria ? Highlight major group of archaebacteria in brief.
6. Describe the harmful impacts of mycoplasma.
7. Write the general characteristics of club fungi and sac fungi.
8. Give a detail note on the heterothallism in fungi.

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