

**A-0107**

**Total Pages : 3**

**Roll No. ....**

**MSCZO-604**

**M.Sc. ZOOLOGY (MSCZO)**

**(Microbiology & Immunology)**

**3rd Semester Examination, session December 2024**

**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. Give stepwise detailed description of viral replication.
2. Explain the process of water purification.
3. What is phagocytosis ? Write the basic mechanism of phagocytosis.
4. Describe the various types of filters and their uses.
5. Describe various types of vaccines.

### **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. Write short notes on dry heat methods of sterilization.
2. What is essential difference between Tyndallization and Pasteurization.
3. Explain various preventive measure of curve and control of microbial pathogens.
4. Write short notes on the following :
  - (a) Inoculation loops
  - (b) Petri dish or plate

5. Differentiate between DAMPs and PAMPs with example.
6. What is opsonization ? Write note on opsonin receptors.
7. Write short notes on the following :
  - (a) Microbiology of sewage water
  - (b) Soil Enzymes
8. What is the significant about gram staining ?

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