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M. Sc.-I Sem.

Roll No. ....

**PG-1638**

M. Sc. Examination, December-2024

**MEDICAL MICROBIOLOGY**

**Microbiological Tools & Techniques**

**(MM-102)**

*Time : Three Hours]*

*[Maximum Marks : 50*

**Note:** Attempt questions as per Instructions given in each section. Illustrate your answers with suitable diagram wherever necessary.

**Section-A**

**(Very Short Answer Questions)**

**Note:** Attempt all five questions. Each question carries 2 marks.  $5 \times 2 = 10$

1. What is a pathogen?

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2. Applications of micrometry.
3. What is 'pure culture'?
4. Define autoradiography
5. Explain dialysis in short?

**Section-B**

**(Short Answer Questions)**

- Note:** Attempt any two questions.  $2 \times 5 = 10$
6. Discuss the principle and applications of Thin Layer Chromatography (TLC)?
  7. Explain the occurrence of infections in society and its economic losses due to it?
  8. Elaborate on the fractionation of microbial cells in research?

**Section-C**

**(Detailed Answer Questions)**

- Note:** Attempt any three questions.  $3 \times 10 = 30$
9. Elaborate on the types of culture media for microbial research?
  10. Discuss the principle and applications of ultra centrifugation?

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11. Discuss the concept of microbiological safety cabinets?
12. Discuss the methods of preservation of microbes in research?
13. Explain the chemical analysis of microbial cells for biomolecules?