



**B.Sc. II Semester Degree Examination, Sept./Oct. - 2024**

**BIOTECHNOLOGY**

**Microbiological Methods**

**(NEP)**

Time : 2 Hours

Maximum Marks : 60

- Note :** (i) Answer **all** sections.  
(ii) Draw diagrams wherever necessary.

**SECTION - A**

1. Answer the following sub-questions. **10x1=10**
- (a) Expand TEM.
  - (b) What is Chromatography ?
  - (c) Define Germicide.
  - (d) What is membrane filter ?
  - (e) What you mean by Agar ?
  - (f) What is the temperature of liquid nitrogen ?
  - (g) Name the types of stain.
  - (h) Give the example of Gram-negative bacteria.
  - (i) Expand MDR.
  - (j) Who has first used the term 'Antibiotic' ?

**SECTION - B**

Answer **any four** of the following questions.

**4x5=20**

- 2. Distinguish between Compound microscope and Electron microscope.
- 3. Explain briefly about the principle, precaution and application of Laminar Air Flow.
- 4. Describe the serial dilution.



5. Give an account of simple staining.
6. Write a short note on Antifungal agents.
7. Explain the filtration methods for sterilization.

**SECTION - C**

Answer **any three** of the following questions.

**3x10=30**

8. Explain the principle and applications of centrifugation.
9. Write a detailed note on Liquid and Gaseous sterilization.
10. Give the detail account of the plating methods in culture media.
11. Write an explanatory note on the types of stains.
12. Briefly explain about the Disc and Agar well diffusion techniques.

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