

**Roll No.**

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**Total No. of Pages : 02**

**Total No. of Questions : 10**

**B.Pharma (Sem.-6)**  
**PHARMACEUTICAL MICROBIOLOGY**

**Subject Code : BPHM-605**

**M.Code : 71037**

**Date of Examination : 11-01-23**

**Time : 3 Hrs.**

**Max. Marks : 80**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **FIFTEEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **FOUR** questions carrying **TEN** marks each and students have to attempt any **THREE** questions.

## SECTION-A

**1. Define the following :**

- a) Give two examples of Aerobic Bacteria.
- b) Name the causative agent of :
  - (i) Tetanus
  - (ii) Diphtheria.
- c) What are sterility indicators? Give examples.
- d) Enlist the morphological features of actinomycetes.
- e) Define mordant with examples.
- f) Define D value and Z value.
- g) Define MIC.
- h) What are “*bacterial enzymes*”.
- i) Write role of plasmid in bacterial cells.
- j) Define “*prions*”. Give any two examples.
- k) Give the different application of microbiology in pharmacy.

- l) Define :
  - (i) Enriched media
  - (ii) Immunology.
- m) Give examples of acid fast and non-acid fast bacteria.
- n) Define antibodies. Give its examples.
- o) Write the principle of electron microscopy.

### SECTION-B

- 2. How do you differentiate between bacteria based on acid fast staining?
- 3. Discuss the various factors influencing the infection.
- 4. a) Differentiate between natural immunity and acquired immunity.  
b) Write a note on usefulness of microbial assay for estimation of amino acids.
- 5. Define “translation”. Explain its stages with help of diagram.
- 6. What is the principle of heat sterilization? Discuss its functioning in detail.

### SECTION-C

- 7. Discuss various methods of sterilization with emphasis on sterilization of thermolabile drugs.
- 8. a) Discuss the scope of pharmaceutical microbiology.  
b) Write a note on nutrition requirement and isolation of viruses.
- 9. Discuss the factors affecting the process of disinfection. How is the evaluation of liquid disinfectants done?
- 10. **Write short note on any (two):**
  - a) Laminar aseptic hoods.
  - b) Sterility testing.
  - c) Antigen containing preparations.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**