

B PHARM
(SEM III) THEORY EXAMINATION 2022-23
PHARMACEUTICAL MICROBIOLOGY

Time: 3 Hours

Total Marks: 75

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. **Attempt all questions in brief.** **10 x 2 = 20**
- (a) Mention any two reagents used for acid fast staining.
 - (b) Classify physical method of sterilization.
 - (c) Mention type of media used for cultivation of fungi.
 - (d) Write in brief about the principle of sterility testing.
 - (e) What is the role of agar in culture media?
 - (f) What are Rodac plates?
 - (g) Write the incubation conditions for cell culture.
 - (h) List out different types of spoilage in pharmaceuticals.
 - (i) Write a note on Grade B room.
 - (j) Write a short note on bio-indicators for thermal sterilization.

SECTION B

2. **Attempt any two parts of the following:** **2 x 10 = 20**
- (a) Enlist various methods of evaluation of bacteriostatic and bactericidal disinfectant. Explain any method of bacteriostatic disinfectant.
 - (b) Write about importance of microbial preservation technique. Write procedure, merit, and demerit of any four preservation techniques.
 - (c) Explain the source, mechanism of sterilisation, merit, demerits, and applications of sterilization using radiations.

SECTION C

3. **Attempt any five parts of the following:** **7 x 5 = 35**
- (a) Write in detail about the construction and design of aseptic room.
 - (b) What are the methods used for the evaluation of microbial stability of formulations?
 - (c) Explain in detail about the principle involved in autoclaving.
 - (d) Describe steps involved in replication of virus.
 - (e) Explain IMViC tests used for identification of bacteria.
 - (f) Write briefly on different methods used for microbiological assay of antibiotics.
 - (g) Give the principle and main characteristic of phase contrast microscopy.