

27-12-2024

Bachelor of Pharmacy III Semester - End Semester Examination December- 2024

3633

PHARMACEUTICAL MICROBIOLOGY

Instructions to the candidates:

1. Do not write anything on question paper except Roll Number, otherwise it shall be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. Section-A contains Q-1 and Q-2 with Five (5) questions each. All the Ten very short type questions are compulsory and carry equal marks (10 x 2 = 20).
3. Section-B contains Q-3, Q-4 and Q-5. Answer any TWO questions among the three descriptive type questions and carry 10 marks each. (2 x 10=20).
4. Section-C contains Q-6 and Q-7 with FIVE (5) and FOUR (4) sub divisions. Answer any FOUR (4) and THREE (3) questions of choice among the short answer type questions and all carry 5 marks each. (7 x 5 = 35)

Duration: 3 Hours

No. of Pages in this Question Paper: 1

Total Marks: 75

Section - A

1. Answer the following questions in very short (Maximum 20 words) 5 x 2 = 10
 - a) Culture
 - b) Autotrophs
 - c) Media
 - d) Aseptic conditions
 - e) Osmophilic bacteria
2. Answer the following questions in very short (Maximum 20 words): 5 x 2 = 10
 - a) Write any two limitations of optical microscopy.
 - b) Write the mechanism of action of aldehydes as antimicrobial agents.
 - c) Give the mathematical expression of chick martin phenol co-efficient test.
 - d) Give any two examples of pathogens and the disease they cause.
 - e) Give the full form of SEM & TEM.

Section - B

- Answer (Any Two) of following questions in Long answer: 2 x 10 = 20
3. Discuss the factors influencing disinfection. Explain the characteristics of phenolic disinfectants.
 4. Explain the sterility testing of aqueous and oily solutions as per IP.
 5. Describe various methods of identification of bacteria.

Section - C

6. Answer (Any Four) of the following questions in short answer. 4 x 5 = 20
 - a) Describe growth curve of bacteria.
 - b) Describe the principle, construction and working of laminar air flow cabinet.
 - c) What is gaseous sterilization? Explain the characteristics of any two agents used in gaseous sterilization.
 - d) Explain the methods to prevent microbial contamination of drugs.
 - e) Differentiate between gram +ve & gram -ve organisms.
7. Answer (Any Three) of the following: 3 x 5 = 15
 - a) Differentiate between chemical assay and microbial assay.
 - b) Differentiate between ionizing and non-ionizing radiations giving examples.
 - c) Describe the principle of microbial assay of antibiotics.
 - d) Describe the principles of various types of optical microscopy.