

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – V • EXAMINATION – SUMMER 2013

Subject Code: 250002

Date: 11-06-2013

Subject Name: Pharmaceutical Microbiology-I

Time: 02.30 pm - 05.30 pm

Total Marks: 80

Instructions:

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

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|------------|---|-----------|
| Q.1 | (a) Classify the microbes morphologically. Discuss taxonomy of actinomycetes. | 06 |
| | (b) Differentiate bacteria and viruses | 05 |
| | (c) Write a brief note on cultivation of viruses | 05 |
| Q.2 | (a) Classify the staining techniques. Discuss gram staining method | 06 |
| | (b) Discuss electron microscopy with its applications | 05 |
| | (c) Discuss preservation of bacterial cultures | 05 |
| Q.3 | (a) Write a brief note on nutritional requirements of microorganisms | 06 |
| | (b) Define total counts. Enlist methods for total count and discuss any one. | 05 |
| | (c) How will you examine living bacteria? Discuss it. | 05 |
| Q.4 | (a) Enlist factors affecting disinfection. Discuss any two in short. | 06 |
| | (b) Enumerate the methods of evaluation of disinfectant. Discuss RWC. | 05 |
| | (c) Important of control tests in test for sterility. Give temperature and incubation time for the bacteria and fungi in the sterility testing. | 05 |
| Q.5 | (a) Discuss the microbiological assay of penicillin injection IP | 06 |
| | (b) What is sterility test? How do you carry out sterility test for Sulphacetamide Sodium eye drops? | 05 |
| | (c) Classify the methods for viable counts. Write a note on Roll Tube method | 05 |
| Q.6 | (a) Enumerate the methods of sterilization and give the mode of action for each method. | 06 |
| | (b) Discuss the saturated steam as a sterilizing agent. | 05 |
| | (c) How will you validate bacterial filter for its efficiency. | 05 |
| Q.7 | Write a note on any four | 16 |
| | (a) Scope of microbiology | |
| | (b) Bacterial cell | |
| | (c) Radiation sterilization | |
| | (d) Microbiological assay of vitamin B12 | |
| | (e) Dynamics of disinfection | |
