

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.**

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	
