Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY B.PHARM – SEMESTER - V • EXAMINATION – SUMMER 2017

Subject Code: 250002 Date:29/05/2017

Subject Name: Pharmaceutical Microbiology - I

Time: 10:30 AM to 1:30 PM **Total Marks: 80**

Instructions:

1.	Attemi	nt anv	five	questions.
1.	TALLCHIL	or any	1110	questions.

- Make suitable assumptions wherever necessary.
 Figures to the right indicate full marks.

Q.1	(a) (b) (c)	Describe the test to be comply for the media used for sterility testing as per IP Explain the two level factorial microbial assay method for antibiotics in brief. Describe the morphological structure of a bacteriophage with a labeled diagram.	06 05 05			
Q.2	(a) (b) (c)	What is electron microscopy? Differentiate between Transmission Electron Microscopy (TEM) and Scanning Electron Microscopy (SEM). Describe in brief about acid fast staining techniques. Classify the bacteria based on the temperature requirements and give temperature range for growth of each class of bacteria.				
Q.3	(a)(b)(c)	Enumerate the various factors affecting disinfection action and discuss the effect of concentration of disinfectant in detail. Write sterilization condition of moist and dry heat sterilization process along with their applications. Enlist the methods for evaluation of efficiency of filtration sterilization process and describe any one detail.	06 05 05			
Q.4	(a) (b) (c)	Write a short note on Scope of Microbiology. Describe the structure and functions of flagella. What are endospores? Describe the process of endospores formation by suitable diagram.	06 05 05			
Q.5	(a)(b)(c)	Discuss the mechanism of destruction of microbes by following methods (i) Ethylene oxide method (ii) Ionizing radiation (iii) Dry heat sterilization. Describe Most probable number (MPN) method of bacterial enumeration in brief. Discuss significance and limitations of Sterility testing.	06 05 05			
Q. 6	(a) (b) (c)	Describe Anaerobic Jar in cultivation of anaerobic microbes. Give the mechanism of following disinfectants (i) Phenols (ii) Alcohols Discuss the limitations of phenol coefficient test.	06 05 05			
Q.7	(a) (b) (c)	Write a brief note on spirochete. What are selective and differential media? Discuss its significance. Enumerate the methods of isolation of bacteria and describe spread plate method in brief.	06 05 05			
