Seat No.: Enrolment No.		: Enrolment No		
	GUJARAT TECHNOLOGICAL UNIVERSITY			
	B.PHARM – SEMESTER – V • EXAMINATION – WINTER – 2015			
	Subjec	et Code: 250002 Date: 08/12/201	5	
	•	et Name: Pharmaceutical Microbiology-I		
	Time: 10.30 AM to 1.30 PM Total Mark		s: 80	
Instructions:			·	
		Attempt any five questions.		
		Make suitable assumptions wherever necessary.		
	3.]	Figures to the right indicate full marks.		
Q.1	(a)	Define Generation time & classify the bacteria with respect to O ₂ requirement	06	
	` ,	and temperature requirement. Explain Bacterial growth curve.		
	(b)	Differentiate gram positive and gram negative characters of Bacteria.	05	
	(c)	Explain any two methods of isolating the pure cultures with their advantages and	05	
		disadvantages.		
Q.2	(a)	Define Sterilization. Explain the mechanism and operational procedure of	06	
	()	industrial autoclave with a neat labeled diagram.		
	(b)	Write notes on methods for validating the sterilizing equipments.	05	
	(c)	Give a detailed account on Gaseous sterilization.	05	
Q.3	(a)	Explain oligodynamic action of metals with the reactions involved. Write short	06	
	(-)	notes on kinetics of disinfection. Name the disinfectants which act by disrupting		
		the cell membrane.		
	(b)	Explain the factors affecting disinfection associated with test organism.	05	
	(c)	Mention the methods of evaluating bacteriostatic agents and explain any two.	05	
Q.4	(a)	Compare and contrast the phenol coefficent tests.	06	
	(b)	Write short notes on Test for sterility.	05	
	(c)	With a neat diagram, explain the morphology of bacteriophage.	05	
Q.5	(2)	Evaloin viable count methods of anymerating the microbes	06	
Q.5	(a) (b)	Explain viable count methods of enumerating the microbes. How to preserve the microbial cultures?	05	
	(c)	State reasons: i)for using special media in test for sterility instead of nutrient	05	
	(0)	broth ii) for using 18 to 24h culture in most of the microbiological experiments	00	
		iii) for using alcohol(70%) as antiseptic than alcohol(90%).		
Q. 6	(a)	Write a detailed account on Microbiological assay of Streptomycin.	06	
Q. 0	(b)	Enumerate the principles and methods of differential staining.	05	
	(c)	Criticize the phenol coefficient tests.	05	
Q. 7	(a)	Detail out the sterilization using depth filters.	06	
	(b)	Classify the actinomycetes and viruses.	05	
	(c)	Explain any one microbiological assay method of Vitamin B_1 .	05	
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