

GUJARAT TECHNOLOGICAL UNIVERSITY

B. PHARM (SEMESTER-5) (Old Syllabus) SUMMER-2015

Subject code: 250002

Date: 30/04/2015

Subject Name: Pharmaceutical Microbiology-I

Time: 2:30 pm to 5:30 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)	Describe the flagella. Write factor affecting growth of microorganism.	06
	(b)	What is pharmaceutical microbiology? Write in brief its scope.	05
	(c)	Classify microorganism as per their oxygen requirement. Enlist factor affecting the growth of microorganism.	05
Q.2	(a)	Describe various methods used for isolation of microorganism with its advantages and disadvantages.	06
	(b)	Classify staining techniques. Discuss gram staining.	05
	(c)	Differentiate gram positive and gram negative microorganisms.	05
Q.3	(a)	Classify the various media for bacterial growth. Differentiate Selective and Differential media.	06
	(b)	Describe Rideal – Walker test.	05
	(c)	Define and classify disinfectant. Write about factor affecting disinfectant's efficacy.	05
Q.4	(a)	Explain D, Z and F values. Write significance in validation of sterilization.	06
	(b)	Write note on an Autoclave	05
	(c)	Explain: Bioburden, Thermal death point, SAL, Bactericide, MIC.	05
Q.5	(a)	Explain principle involved in microbiological assay of antibiotics.	06
	(b)	Describe ditch plate method for microbiological assay.	05
	(c)	Write short note on 'Laminar Air Flow'.	05
Q. 6	(a)	Enlist methods for sterility testing. Discuss direct inoculation method.	06
	(b)	Write note on Gaseous sterilization.	05
	(c)	Describe various chemical & biological sterilization indicators.	05
Q.7	(a)	Write a note on nutritional requirements of microorganism.	06
	(b)	Write detail note on spirochetes.	05
	(c)	Discuss microbiological assay of cyanocobalamine.	05
