

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM. - SEMESTER- V • EXAMINATION – SUMMER-2016

Subject Code: 2250002

Date: 30/04/2016

Subject Name: Pharmaceutical Microbiology & Biotechnology - 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) Classify the staining techniques. Discuss gram staining method.	06
	(b) Differentiate bacteria and viruses.	05
	(c) Write application and scope of Pharmaceutical Microbiology.	05
Q.2	(a) Write a brief note on nutritional requirements of microorganisms.	06
	(b) Classify media. Write in detail about any one media used for cultivation of anaerobic organisms.	05
	(c) Describe growth curve of bacteria with labeled diagram.	05
Q.3	(a) Define 'Disinfection'. Write ideal properties of a disinfectant.	06
	(b) Enlist the methods of evaluation of disinfectant. Discuss phenol coefficient test.	05
	(c) How will you perform the sterility test for penicillin?	05
Q.4	(a) Give principle, merits, demerits, and applications to be observed in Autoclave.	06
	(b) Explain the methods of determining viable Count.	05
	(c) Discuss preservation of bacterial cultures.	05
Q.5	(a) Discuss in detail about translation.	06
	(b) Discuss in detail about genetic code and its properties.	05
	(c) Write applications of biotechnology in Pharmacy.	05
Q. 6	(a) Explain salient features of enzyme immobilization.	06
	(b) Discuss any two methods of immobilization of enzymes.	05
	(c) Write note on bacterial flagella.	05
Q.7	(a) Write a note on spirochetes.	06
	(b) Write a note on gaseous sterilization.	05
	(c) Write a note DNA Replication.	05
