

**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.

<b>Q.1</b>	(a) Classify the staining techniques. Discuss gram staining method.	<b>06</b>
	(b) Differentiate bacteria and viruses.	<b>05</b>
	(c) Write application and scope of Pharmaceutical Microbiology.	<b>05</b>
<b>Q.2</b>	(a) Write a brief note on nutritional requirements of microorganisms.	<b>06</b>
	(b) Classify media. Write in detail about any one media used for cultivation of anaerobic organisms.	<b>05</b>
	(c) Describe growth curve of bacteria with labeled diagram.	<b>05</b>
<b>Q.3</b>	(a) Define 'Disinfection'. Write ideal properties of a disinfectant.	<b>06</b>
	(b) Enlist the methods of evaluation of disinfectant. Discuss phenol coefficient test.	<b>05</b>
	(c) How will you perform the sterility test for penicillin?	<b>05</b>
<b>Q.4</b>	(a) Give principle, merits, demerits, and applications to be observed in Autoclave.	<b>06</b>
	(b) Explain the methods of determining viable Count.	<b>05</b>
	(c) Discuss preservation of bacterial cultures.	<b>05</b>
<b>Q.5</b>	(a) Discuss in detail about translation.	<b>06</b>
	(b) Discuss in detail about genetic code and its properties.	<b>05</b>
	(c) Write applications of biotechnology in Pharmacy.	<b>05</b>
<b>Q. 6</b>	(a) Explain salient features of enzyme immobilization.	<b>06</b>
	(b) Discuss any two methods of immobilization of enzymes.	<b>05</b>
	(c) Write note on bacterial flagella.	<b>05</b>
<b>Q.7</b>	(a) Write a note on spirochetes.	<b>06</b>
	(b) Write a note on gaseous sterilization.	<b>05</b>
	(c) Write a note DNA Replication.	<b>05</b>

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