

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VI • EXAMINATION – SUMMER • 2014

Subject Code: 260002

Date: 22-05-2014

Subject Name: Pharmaceutical Microbiology & Biotechnology II

Time: 10:30 am - 01:30 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) Define Biotechnology. Discuss scope and potential of it.	06
	(b) Write brief note on production of monoclonal antibodies.	05
	(c) Write a short note on protoplast fusion.	05
Q.2	(a) Write in brief about products produced by biotechnology.	06
	(b) Write short note on Mutation.	05
	(c) Give brief note about plasmids	05
Q.3	(a) Write in brief about antigen antibody reactions	06
	(b) Classify different types of immunity	05
	(c) Differentiate vaccine and sera	05
Q.4	(a) What is master culture? How it is to be prepared and preserved?	06
	(b) Write short note on interferons.	05
	(c) Write short note on BCG vaccine.	05
Q.5	(a) Write in detail the design of ideal fermenter.	06
	(b) Describe the methods for the isolation of mutants.	05
	(c) Give the flow chart for the production of vitamin B ₁₂	05
Q. 6	(a) Discuss various media used for the fermentation process.	06
	(b) Discuss about Recovery and purification of fermentation products.	05
	(c) Write short note on recombinant DNA technology	05
Q. 7	(a) Discuss various techniques for enzyme immobilization	06
	(b) Explain salient features of enzyme immobilization	05
	(c) Explain the term attenuated vaccine and discuss its method of preparation	05
