Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER–VI • EXAMINATION – SUMMER-2016

Subject Code:260002 **Date:05/05/2016**
Subject Name: Pharmaceutical Microbiology & Biotechnology II
Time: 10:30 AM to 1:30 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)**	Write brief note on role of pharmacist in biotechnology.	**06**
	(b)	Explain Various types of RNA with neatly labeled diagram.	**05**
	(c)	Define mutation and explain types of mutation.	**05**
Q.2	**(a)**	Draw Double Helix DNA model and describe in detail.	**06**
	(b)	How is Humulin prepared biotechnologically?	**05**
	(c)	Write the application of monoclonal antibodies. Explain any one in detail.	**05**
Q.3	**(a)**	Write on protoplast fusion technology.	**06**
	(b)	Define plasmid vector. Describe in detail about pBR322.	**05**
	(c)	Enlist antigen-antibody interactions. Explain any one in detail.	**05**
Q.4	**(a)**	Classify immunity. Write overview of specific immune system.	**06**
	(b)	Explain host pathogen interaction in production of disease.	**05**
	(c)	Explain primary and secondary defense mechanism.	**05**
Q.5	**(a)**	What is autoimmunity? Classify various autoimmune diseases.	**06**
	(b)	Describe the method of preparation, standardization and storage of IPV.	**05**
	(c)	Explain western blotting method.	**05**
Q. 6	**(a)**	Write a note on recovery of fermentation product: streptomycin.	**06**
	(b)	Give factors affecting selection of media for fermentation.	**05**
	(c)	How is master culture prepared & preserved?	**05**
Q.7	**(a)**	Discuss any two methods of enzymes immobilization.	**06**
	(b)	Write a factors, properties and use of immobilized enzyme.	**05**
	(c)	Describe in detail aerobic fermentor.	**05**

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