Seat No.:		Enrolment No	_	
		GUJARAT TECHNOLOGICAL UNIVERSITY		
· · ·		BE - SEMESTER-IV(OLD) • EXAMINATION – WINTER 2016 Code:143504 Date:24/11/201	R 2016 Date:24/11/2016	
Subject Name:Fundamentals of Biotechnology Time:02:30 PM to 05:00 PM Instructions:		2:30 PM to 05:00 PM Total Marks: 7	Total Marks: 70	
HIS	1. 2.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.		
Q.1	(a) (b	Explain the structure of DNA & RNA with suitable diagram. Explain the function of RNA & DNA.	07 07	
Q.2	(a) (b)	Enlist and explain various types of RNA.  Explain the function and properties of plasmids.  OR	07 07	
	<b>(b)</b>	Draw a diagram of cell and discuss its classification.	07	
Q.3	(a) (b)	Define immunity. Discuss its classification. What do you mean by immune system? Explain primary and secondary immune response.	07 07	
Q.3	(a) (b)	OR Define antigen? Write down the function and properties of antigen. Define antibody and explain its structure and types.	07 07	
Q.4	(a) (b)	Discuss the followings: epitopes, haptens and Rh system. Explain alternation of DNA.	07 07	
		OR		
Q.4	(a) (b)	Define the enzymes. What are factors that affect the enzyme activity? Explain the method of passing replication through Elongation and fermentation.	07 07	
Q.5	(a) (b)	What is biogas? Briefly describe biogas production with reaction involved in it. What are enzymes that involves in the replication process. Discuss briefly.  OR	07 07	
Q.5	(a)	Define biotechnology. How the biotechnology play an important role in chemical industries? Explain in brief?	07	
	<b>(b)</b>	Discuss the initiation elongation and termination during replication process.	<b>07</b>	

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