Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV • EXAMINATION – WINTER • 2014

Subject Code: 143504 **Date: 02-01-2015**

Subject Name: Fundamentals of Biotechnology

Time: 02:30 pm - 05:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain Watson and Crick model for DNA.	**07**
	(b	Explain types of RNA with their specific working.	**07**
Q.2	**(a)**	Write short note on plasmid DNA.	**07**
	(b)	Explain in detail of gene process of expression.	**07**
		OR	
	(b)	What is Wobble hypothesis and how it works?	**07**
Q.3	**(a)**	Enlist type of immunity and describe in detail innate and acquired immunity.	**07**
	(b)	Explain primary and secondary immune response.	**07**
		OR	
Q.3	**(a)**	What is antigen? Classify antigen and explain some properties.	**07**
	(b)	Define antibody and explain structure and types.	**07**
Q.4	**(a)**	Write short note on ABO and Rh system.	**07**
	(b)	How replication of Prokaryotic DNA can be realized?	**07**
		OR	
Q.4	**(a)**	What is Unidirectional and Bidirectional replication?	**07**
	(b)	Explain the method of passing replication through Elongation and fermentation.	**07**
Q.5	**(a)**	Write notes on close clam and rolling circle model of replication.	**07**
	(b)	How biotechnology can be a solution of pollution?	**07**
		OR	
Q.5	**(a)**	Explain factor affect the enzyme activity.	**07**
	(b)	Explain alternation of DNA.	**07**

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