Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER V • EXAMINATION – WINTER - 2012

Subject code: 150405 **Date: 23-01-2013**

Subject Name: The Science of Life

Time: 02:30 pm to 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 mechanism of translation in prokaryotes.	**10**
	(b)	Give classification of lipids.	**04**
Q.2	**(a)**	Explain mechanism of eukaryotic replication in detail with a neat diagram.	**07**
	(b)	Compare plant and animal cells	**07**
		OR	
	(b)	Compare prokaryotic and eukaryotic cells.	**07**
Q.3	**(a)**	Write a short note on Replication in Prokaryotes.	**10**
	(b)	Explain various properties if genetic code.	**04**
		OR	
Q.3	**(a)**	Write a short note on transcription in prokaryotes.	**10**
	(b)	Discuss Watson and Crick model of DNA.	**04**
Q.4	**(a)**	Give classification of amino acids.	**07**
	(b)	Write a short note on disaccharides and polysaccharides.	**07**
		OR	
Q.4	**(a)**	Explain classification of monosaccharides.	**07**
	(b)	Write a short note on structure of t-RNA.	**07**
Q.5	**(a)**	Write a short note on haptens.	**06**
	(b)	Differentiate different classes of immunoglobulins.	**06**
	(c)	Write a short note on adjuvants	**02**
		OR	
Q.5	**(a)**	Explain the concept of graft rejection.	**06**
	(b)	Differentiate different granulolytic cells.	**06**
	(c)	Write a short note on epitopes.	**02**

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