Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– III EXAMINATION – SUMMER 2015

Subject Code: 130402 **Date: 09/06/2015**

Subject Name: CELL BIOLOGY

Time: 02.30pm-05.00pm **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)**	Describe in detail about structural architecture of biological membrane.	**07**
	(b)	Draw a labeled diagram of eukaryotic organization.	**07**
Q.2	**(a)**	Compare Gram positive and Gram negative bacterial cell wall with structure.	**07**
	(b)	Draw a labeled diagram of animal cell with significances of each component.	**07**
		OR	
	(b)	Write a note on evolution of cell.	**07**
Q.3	**(a)**	Give a detail account on bacterial flagella structure and function.	**07**
	(b)	With labeled diagram write the process of Endospore formation.	**07**
		OR	
Q.3	**(a)**	With physiological significance explain nucleus.	**07**
	(b)	Define the term Endoplasmic reticulum. Explain types, structure of it.	**07**
Q.4	**(a)**	Elaborate the process of cellular digestion mediated by lysosome.	**07**
	(b)	Structurally differentiate between prokaryotic and eukaryotic ribosomes.	**07**
		OR	
Q.4	**(a)**	Write in brief account on plasmid.	**07**
	(b)	Describe in detail about Eukaryotic chromosome organization.	**07**
Q.5	**(a)**	Write a note on structure and function of mitochondria.	**07**
	(b)	Explain the structural and functional aspect of chloroplast in plant cell.	**07**
		OR	
Q.5	**(a)**	What are the significances of Cytoskeleton network? Enlist types and functions of each component.	**07**
	(b)	Define the role of peroxisome. How biogenesis of peroxisome takes place in biological system?	**07**

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