

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**
