

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER 2013****Subject Code: 130402****Date: 07-12-2013****Subject Name: Cell Biology****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) Compare prokaryotic and eukaryotic cells based on their structure. **07**
(b) Write a detail account on bacterial cell wall. **07**
- Q.2** (a) Comment: - plasma membrane is fluid in nature. **07**
(b) Give a detail account on ultra structure of flagella. **07**
- OR**
- (b) With neat diagram draw the structural difference between rough and smooth endoplasmic reticulum. **07**
- Q.3** (a) Draw the labeled diagram of plant and animal cell, also enlist the differences between them. **10**
(b) Define the following term with suitable explanation **04**
- Plasmid
 - Mesosomes
- OR**
- Q.3** (a) Explain in detail how eukaryotic chromosomes are organized? **07**
(b) Describe about ultra structure of nucleus. **07**
- Q.4** (a) Draw a neat labeled diagram of mitochondria with the functional detail of each part. **07**
(b) Discuss in detail about the types and chemical composition of lysosome. **07**
- OR**
- Q.4** (a) Enlist various components of cytoskeleton network, differentiate the structurally and functionally. **07**
(b) How peroxisome biogenesis takes place? **07**
- Q.5** (a) Define the term endospore. Discuss the process of endospore germination. **07**
(b) What are the vital roles played by Golgi apparatus in cell? Explain in detail. **07**
- OR**
- Q.5** (a) Write a detail account on eukaryotic ribosomes. **07**
(b) Describe in detail about chloroplast. **07**
