

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – SUMMER 2013****Subject Code: 130402****Date: 04-06-2013****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)** Enlist and explain in brief differences between prokaryotic and eukaryotic organization. **07**
- (b)** Write a note on cell membrane organization. **07**
- Q.2 (a)** Discuss in detail about chemical composition, nature and functions of cytoplasm in cell. **07**
- (b)** Give a detail account on evolution of life. **07**
- OR**
- (b)** Define the term vacuoles. Give structural and functional details of it. **07**
- Q.3 (a)** What are the structural and functional characteristics of ribosome in cell? **07**
- (b)** Give a detail account on Gas vesicle. **07**
- OR**
- Q.3 (a)** Define the term endospore. Write in detail about the formation of endospore. **10**
- (b)** Describe the composition and difference between Gram positive and Gram negative bacterial cell. **04**
- Q.4 (a)** What do you mean by term plasmid? Give detail about it. **07**
- (b)** Discuss in detail about Golgi apparatus structure and functions. **07**
- OR**
- Q.4 (a)** “Mitochondria- the power house of the cell.” Justify the statement with explanation. **07**
- (b)** Structurally and functionally differentiate between Rough Endoplasmic Reticulum and Smooth Endoplasmic Reticulum. **07**
- Q.5 (a)** Write a note on Glyoxysome. **07**
- (b)** Lysosome is known as self suicidal bag, with suitable explanation comment on it. **07**
- OR**
- Q.5 (a)** Describe in detail about bacterial flagella. **07**
- (b)** Explain about organization of Eukaryotic chromosome. **07**