

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-III Regular / Remedial Examination December 2010

Subject code: 130402

Subject Name: Cell Biology

Date: 14 /12 /2010

Time: 10.30 am – 01.00 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) Write a short note on types of Endoplasmic Reticulum. **07**
(b) What is chemical composition of outer membrane of gram –ve organism? Explain with diagram. **07**
- Q.2** (a) Describe ultra structure and function of flagellum. **07**
(b) Write a short note on Enzymes present in Mitochondria. **07**
- OR**
- (b) Write a short note on nucleolous. **07**
- Q.3** (a) Indicate how bacterial endospore differs from vegetative cell. **07**
(b) Write functions of Golgi body. **07**
- OR**
- Q.3** (a) Make a comparison of three main components of cytoskeleton. **07**
(b) Explain solenoid model of chromosomal arrangement. **07**
- Q.4** (a) Write a short note on Light Reaction. **10**
(b) Explain molecular structure of Gas vesicle. **04**
- OR**
- Q.4** (a) Describe Dark reaction in both C₃ and C₄ plants. **10**
(b) Explain mode of active transport in plasma membrane with suitable illustration. **04**
- Q.5** (a) Differentiate between prokaryotic and eukaryotic ribosome. **05**
(b) Mention major proteins found in axoneme of cilia with their functions. **05**
Give functions of Glyoxysomes.
(c) **04**
- OR**
- Q.5** (a) Write a short note on phase reversal. **05**
(b) Draw a neat diagram of plant cell. **05**
(c) Differentiate between eukaryotic and prokaryotic cell. **04**
