

2007 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

II B.TECH I SEMESTER REGULAR EXAMINATIONS
CELL BIOLOGY
(BIO-TECHNOLOGY)

NOVEMBER 2007

MAX MARKS: 80
TIME: 3 HOURS

Answer any FIVE Questions
All Questions carry equal marks

1. *With a neat labelled diagram explain the structure of a typical eukaryotic cell.* [16]
2. *What property allows carbon compounds to exist in a number of forms and what properties of a carbon atom are critical to life?* [16]
3. *What are the major functions of nucleus? How are nuclear pores important in protein trafficking?* [16]
4. *Elaborate on the role of symporters and Antiporters as transport proteins in co-transport of substances across Plasma membrane.* [16]
5. *Describe the following - Cell cycle; cell plate; centrioles; centromere; sister chromatids; spindle fibers.* [16]
6. *Using Hematopoietic system explain stem cell differentiation.* [16]
7. *What do receptors accomplish for a cell? Explain.* [16]
8. *Using a suitable example discuss the role of secondary messengers in signal transduction.*