

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. Write short notes on [8 × 2 = 16]
- (a) Cell theory
- (b) Discovery of cells
2. Describe three functions of microtubules and microfilament. Compare and contrast microtubule assembly and intermediate filament assembly. [16]
3. Discuss each of the following:
- (a) the structure and role of the cell membrane
- (b) the structure and role of mitochondria. [16]
4. How are substances moved across the plasma membrane against its concentration gradient? [16]
5. Justify the statement "There are variations observed in cell cycle patterns of some cells". [16]
6. Explain what is meant by cell differentiation? [16]
7. Citing a suitable example explain nuclear receptors. [16]
8. Explain the role of protein Tyrosine kinase in cell growth and differentiation.