

II B.Tech I Semester(R07) Supplementary Examinations, May/June 2010  
CELL BIOLOGY  
(Bio-Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
All Questions carry equal marks

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1. Write a short note on:

(a) Cell Theory

(b) Prokaryotic Cell.

[16]

2. Describe the composition of cytoplasm and explain the role of its components.

[16]

3. Write short notes on :

(a) Ribosomes

(b) Lysosomes.

[8+8]

4. Define facilitated diffusion. Explain how glucose is transported into muscle cells by passive transport.  
[16]

5. Explain how cell cycle control system depends on cyclical proteolysis? What is the role of Ubiquitin in this process?  
[16]

6. Comment on the four signaling pathways viz., wntless, hedgehog, Dpp and Notch that are responsible for growth and patterning of appendages in Drosophila wings?  
[16]

7. (a) Mention the three major families of trimeric G-proteins

(b) Mention the principal subunit involved in mediating the action and the functions of each of these subunits?  
[6+10]

8. What is Philadelphia chromosome? Explain the precise events involved in the translocation of chromosomes in Philadelphia chromosome?  
[16]

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