

Reg. No. :

**R 3115**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Third Semester

Biotechnology

BT 1202 — CELL BIOLOGY

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

Write short notes on :

1. Prokaryotes.
2. Contact inhibition.
3. Mitosis.
4. Active transport.
5. Endocytosis.
6. Lysosome.
7. Calmodulin.
8. Autocrine action.
9. Regulation of protein kinase.
10. Explant culture.

PART B — (5 × 16 = 80 marks)

11. (a) How do you isolate subcellular fractions? (16)

Or

- (b) Write a note on cell division and regulation. (16)

12. (a) How does virus enter into cell? (16)
- Or
- (b) Describe in detail sodium potassium pump. (16)
13. (a) How would you isolate and characterise receptors? (16)
- Or
- (b) What is calcium ion influx and its role in signal pathway? (16)
14. (a) Describe in detail Tumor Necrosis Factor and its receptor. (16)
- Or
- (b) What do you know of altered signal pathway in Cancer? (16)
15. (a) Discuss 3D-culture by citing examples. (16)
- Or
- (b) Discuss with example the role of matrix in cell growth. (16)
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