

D 2720

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Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2005

General Biotechnology

GBT 101—CELL BIOLOGY

Time : Three Hours

Maximum : 80 Marks

Part A

Answer any two.

1. Compare and contrast the cell structure of prokaryotes and **enkaryotes**.
2. Describe in detail the role of **ribosomes** in protein biosynthesis and correlate to the structure of **ribosomes**.
3. Describe in detail the process of active transport across the cell membrane.

(2 x 10 = 20 marks)

Part B

Answer any ten.

4. What are the advantages of **glycosylation** of proteins ?
5. Briefly compare different cells diverse in size.
6. Briefly compare different cells diverse in shape.
7. Describe the types and role of intermediate filaments.
8. What do you understand by signalling pathway ? Give one example.
9. What are enzyme linked receptors ?
10. Describe fluorescent microscopic technique.
11. Describe different types of cell junctions.
12. What do you understand by selective permeability ? Explain with example.
13. Describe any technique by which you can double the number of chromosomes in a cell.
14. What are stem cells ?
15. How ions move across cell membrane.

(10 x 5 = 50 marks)

Turn over

Part C*Describe very briefly. Answer*

16. Phagoplast.
17. Two successive cell divisions without DNA replication.
18. Replica imaging in microscopy.
19. Cell membrane of chloroplast.
20. Equilibrium centrifugation.

(2 x 5 = 10 marks)