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Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2009

General Biotechnology
GBT 101—CELL BIOLOGY

Time : Three Hours

Maximum : 80 Marks

Section A

Answer any two questions.

1. Explain the principles of SEM and its applications in Biology.
2. Define and explain the mechanisms of signal transduction in animals.
3. Discuss about the co- and post translational modifications with examples.

(2 x 10 = 20 marks)

Section B

*Answer any **ten** questions.*

4. Write down the functions of golgi complex.
5. Write a note on endocytosis.
6. Explain the diversity of cell size and shape.
7. Write a note on cell theory.
8. Differences between phase contrast microscope and electron microscope.
9. Describe the structure and functions of mitochondria.
10. Write down the DNA repair mechanisms.
11. Define Microtubules. Explain the functions of microtubules.
12. Explain the importance of Photosystem I.
13. Draw neat sketch of Meiosis I and II.
14. Write down the steps involved in protein synthesis.

(10 x 5 = 50 marks)

Section C

*Answer **all** questions.*

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| 15. Endoplasmic Reticulum. | 16. Ribosomes. |
| 17. Chloroplast genome. | 18. Cell junction. |
| 19. t-RNA. | |

(5 x 2 = 10 marks)