B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
II Year III Semester
Core Major - Paper V
CELL BIOLOGY AND MOLECULAR BIOLOGY

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. Cell Theory
2. Side Chain
3. Integral proteins
4. Cisternae
5. Bars of Sanio
6. Amphitrichous and Peritrichous
7. Operons and Repressors
8. Gene regulation
9. Cosmid
10. Vector
11. Endocytosis
12. Teichoic acid

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Enumerate the difference between prokaryotes and eukaryotes.
14. Describe the structure and functions of Endoplasmic Reticulum.
15. Write notes on different types of flagella and its structural differences in both Gram positive and Gram negative Bacteria.
16. Define feedback inhibition and its role in gene regulations.
17. Write short notes on the importance of Restriction enzymes and DNA ligase.
18. Write short notes on the prokaryotic cytoskeletons.
19. Describe the structure and functions of "power house" of cell.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Write an essay on the ultrastructure of the eukaryotic cell wall.
21. Describe the fluid mosaic model of plasma membrane.
22. Describe the structures and functions of microbodies.
23. How is gene expression regulated in prokaryotes.
24. Write an essay on the methods and mechanisms involved in gene manipulation.

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