

**B.Sc. DEGREE EXAMINATION, APRIL 2020**  
**II Year III Semester**  
**Cell Biology and Molecular Biology**

**Time : 3 Hours**

**Max.marks :75**

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

Answer any **TEN** questions

1. Middle lamella.
2. Cellulose.
3. Semi-autonomous organelle.
4. What does nucleus contain?
5. Peroxisomes.
6. How does flagella move.
7. Operon.
8. Autoregulation.
9. Molecular scissor.
10. DNA/RNA extraction.
11. 70s Ribosome.
12. Initiation codon.

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

Answer any **FIVE** questions

13. Explain the organization of Prokaryotes with a diagram.
14. Give an account of structure and functions of Endoplasmic Reticulum.
15. Give an account of Sphaerosomes & Glyoxysomes.
16. Describe Lac-Operon.
17. What are vectors? Explain the role of any 2 vectors in rDNA technology.
18. Write a brief note on restriction enzyme.
19. Briefly describe the Fluid mosaic model of Plasma Membrane with diagram.

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

Answer any **THREE** questions

20. Write an essay on Eukaryotic Cell.
21. Describe the structure and functions of Chloroplast.
22. Write an essay on cell inclusions.
23. Explain the gene regulation in Prokaryotes using operon model.
24. Write an account on principle and application of PCR.

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