

Roll.No.

20UPBCT3005

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)

Chromepet, Chennai - 600 044.

B.Sc PBPBT - END SEMESTER EXAMINATIONS - NOVEMBER 2025

SEMESTER - III

20UPBCT3005 - Cell and Molecular Biology

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Describe the structure of prokaryotic cell with diagram.
2. Explain the structure and function of Mitochondria.
3. Classify and explain the different types of plastids.
4. Explain the occurrence and structure of Microtubules.
5. Describe the role of intermediate filaments during mitosis.
6. Classify the different structural genes in the lac operon.
7. Describe the method of construction of recombinant DNA.
8. Justify cosmid as a vector.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Describe the ultra structure and functions of cell wall.
10. Classify the different types of endoplasmic reticulum and their functions.
11. Examine the structure and chemistry of microfilament.
12. Explain the autoregulations & feedback inhibition with suitable example.
13. Evaluate the limitations and applications of PCR.
