

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. END SEMESTER EXAMINATIONS APRIL-2022

SEMESTER - III

20UPBCT3005 - Cell Biology and Molecular Biology

Total Duration : 3 Hrs.

Total Marks : 60

Section A

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

1. Explain the structure of plant cell with a diagram.
2. Enumerate the functions of endoplasmic reticulum.
3. Describe the ultra structure and function of microtubule.
4. Differentiate between prokaryotic and eukaryotic cells.
5. Give an account on lysosomes.
6. Write a note on the structure and functions of nucleus.
7. Explain feedback inhibition in gene regulation.
8. Give an account on polymerase chain reaction.

Section B

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

9. Mitochondria is the power house of the cell. Discuss.
10. Write a note on endomembrane system in eukaryotic cells.
11. Explain fluid mosaic model of plasma membrane with diagram.
12. What is operon concept? Explain gene regulation in Lac operon.
13. Give a detailed account on recombinant DNA technology.
