

Roll.No.

22UPBAT3003

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

22UPBAT3003 - Chemistry for PBPBT- I

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. Discuss the importance of antidotes with suitable examples.
2. Explain the principle of Volumetric titration.
3. Classify the types and function of RNA.
4. Explain acid-base titration curves for strong acid vs strong base.
5. a) Differentiate between inter and intramolecular hydrogen bonding
b) State the functions of Haemoglobin.
6. Discuss the significance of transcription in the central dogma of molecular biology.
7. Explain the following
a) Fractional distillation b) Accuracy and Precision.
8. Differentiate amino acids into essential and non-essential with suitable examples.

Section C

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

9. Derive the Henderson-Hasselbalch equations and its significance in maintaining P^H of biological systems
10. Describe the following:
i) Column Chromotography ii) Handling of chemicals.
11. a) Draw and explain the structure of NaCl in detail.
b) Discuss the hybridisation and geometry of methane.
12. a) Explain the protein based their functions.
b) Give an brief account on isoelectric point and Zwitter ion
13. a) Explain the process of DNA replication in detail.
b) Differentiate between reducing and non-reducing sugar.
