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 -2023 SEMESTER - III 22UPBAT3003 - Chemistry For PBPBT - I

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

- 1. Indicate the way to handle the acids, ethers, toxic and poisonous chemicals.
- 2. Explain the principle of fractional distillation with a neat diagram.
- 3. Predict the Structure of NaCl and explain.
- 4. Explain the hybridization of a methane molecule.
- 5. Describe common ion effect with an example.
- 6. What are primary and secondary standards? Explain.
- 7. Explain chain structure of glucose and fructose.
- 8. Examine the classification of Amino acids.

Section C

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

- 9. Explain the types of error and describe the methods of eliminating and minimizing errors.
- 10. Explain the structure and function of hemoglobin.
- 11. Derive the Henderson-Hasselbalch equation and buffer action in biological systems.
- 12. Explain the following:
 - (a) Replication of DNA (b) Inversion of Cane Sugar. (6+4)
- 13. Examine the Primary and Secondary Structure of Proteins.
