

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-2023
SEMESTER - I

22PHAT1001 - Chemistry for Physics -1

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section A

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

1. a. How do you handle the concentrate acid?
b. Define Accuracy and precision.
2. a. What is meant by chromatography?
b. Discuss the principle of column chromatography.
3. a. Describe the hybridization and geometry of methane molecule.
b. Write any two importance of hydrogen bonding.
4. How will you prepare primary standard solution with suitable example.
5. a. Define common ion effect with an example.
b. What is meant by the standard electrode potential?
6. Derive Henderson equation.
7. a. With an example of Octane number.
b. Discuss the producer gas.
8. Explain the fractional distillation of petroleum.

Section B

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

9. a. Describe the process of fractional distillation.
b. Write notes on crystallization.
10. a. Explain with the neat structure of NaCl.
b. Explain the chelation and its effect.
11. Explain the following (i) molarity (ii) normality (iii) Acid -base and (iv) Indicators.
12. Discuss the energy storage battery of Lead acid.
13. a. Distinguish between nuclear fission and fusion.
b. Describe medicinal uses of radioactive isotopes.
