

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.(Physics) - END SEMESTER EXAMINATIONS APRIL-2023

SEMESTER - I

22UPHAT1001 - Chemistry for Physics - I

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

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

Section C

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

- Write notes on crystallization and explain its separation technique.
- Explain with the neat structure of NaCl.
 - Explain the chelation and its effects.
- Explain the following
(i) molarity (ii) normality (iii) Acid -base and (iv) Indicators.
- Discuss the energy storage battery of Lead acid.
- Distinguish between nuclear fission and fusion.
 - Describe medicinal uses of radioactive isotopes.
