

Roll.No.

25UPHGT1001

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 - NOVEMBER 2025
SEMESTER - I

25UPHGT1001 - Chemistry for Physics -I

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. Illustrate fractional distillation.
2. Explain primary and secondary standards.
3. Relate the significance of Handerson-Hasselbalch equation.
4. Predict the calorific value and uses of CNG,LPG and natural gas.
5. Identify the types of hydrogen bonding and discuss its importance.
6. Differentiate Molarity,Normality and molality.
7. Describe the principle ,preparation and uses of buffer solutions.
8. Justify the uses of the fractions of fractional distillation and define octane number.

Section C

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

9. Explain the types of errors.How can they be eliminated?
10. Predict and explain the hybridisation and geometry of benzene, acetylene and ammonia.
11. Organize and explain the types of acid-base titrations ,the choice of indicators and their uses.
12. Classify the different energy storage cells and discuss Laclanche cells and Lithium ion batteries.
13. Distinguish nuclear fission and fusion reactions and list the applications of radio isotopes.
