

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.(CND) END SEMESTER EXAMINATIONS NOVEMBER -2023

SEMESTER - I

20UNDAT1001- Allied Chemistry - I

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

1. Write the classification of electrolyte with example.
2. Explain common ion effect with an example.
3. Write the composition of water gas and semi water gas Mention their uses.
4. Illustrate the difference between temporary and permanent hardness.
5. Explain the hybridization of a methane molecule.
6. Explain the mechanism for nitration of benzene.
7. Write the Classification of Heterocyclic Compounds.
8. Distinguish between fluorescence and phosphorescence.

Section C

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

9. Derive the Henderson-Hasselbalch equation and buffer action in biological systems.
10. Explain the preparation of urea, ammonium sulphate, Superphosphate, Triple super phosphate and write its uses.
11. Explain the following substitution, elimination, condensation and polymerization with example.
12. Write one method of preparation and four properties of
(i) Pyridine (ii) Pyrrole.
13. a) State Grothus-Draper Law and Stark-Einsteins law.
b) Write short notes on (i) Photosynthesis (ii) Photosensitization.
