#### 22UCHCT1002

# 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 NOVEMBER-2022 SEMESTER - I

## 22UCHCT1002 - Analytical Chemistry - I

Total Duration: 2 Hrs 30 Mins. Total Marks: 60

## Section A

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

- 1. Define the terms corrosive, explosive and carcinogenic chemicals.
- 2. Explain the general precautions for avoiding accidents.
- 3. Classify the laboratory apparatus based on their uses.
- 4. Describe the absolute error and relative error with suitable example.
- 5. Explain the theories of indicators.
- 6. Illustrate the three theories of principle that governs gravimetry.
- 7. Predict the role of Dimethylglyoxime and cupferron in analytical chemistry?
- 8. Discuss the concept of solubility product and common ion effect

#### Section B

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

- 9. Describe the following method of first aid techniques, Waste disposal and fume disposal.
- 10. Enlist components of the pH meter and its uses and explain the maintenance of the pH meter.
- 11. Examine the acid-base, redox and iodometric of volumetric analysis.
- 12. Apply and explain the concept of theories of precipitation and precipitation from homogenous.
- 13. Assess the group separation of common cations in detail.

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