

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.(Chemistry) - END SEMESTER EXAMINATIONS APRIL-2023
SEMESTER - I

22UCHCT1002 - Analytical Chemistry

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

1. Discuss the first aid techniques used in chemistry laboratories.
2. Describe any five-laboratory apparatus used for specific purposes.
3. Distinguish between absolute error and relative error.
4. a. Outline the principle of iodometric titration.
b. Explain the preparation of primary standard solution.
5. Discuss the Complex formation titration by EDTA method.
6. Explain the following
a. DMG b. Cupferon c. Oxime
7. Describe the conditions of precipitation.
8. Discuss Henderson -Hasselbach equation for buffer solution.

Section C

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

9. a. List out the precautionary measures to be taken for explosive, carcinogenic and flammable materials.
b. How laboratory wastes are treated? Give an example
10. a. Explain the method of expressing accuracy.
b. Detail the methods of minimising determinate errors.
11. a. Discuss the strong acid and strong base by titrimetric method of analysis.
b. Explain the following with an example.
(i) equivalent weight (ii) normality
12. a. Distinguish between Co-precipitate and post precipitation.
b. Describe the uses of sequestering agents.
13. a. Explain the significances of k_a and k_b values.
b. How the following ions are identified
(i) carbonate (ii) sulphate and (iii) cadmium.
