

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 NOVEMBER -2023

SEMESTER - IV

20UCHCT4008 - General Chemistry-VIII

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

1. Indicate the exceptional behaviour of fluorine with suitable examples and equations.
2. Explain and justify the position of rare gases in periodic table.
3. a) Predict the reasons why carbonyl compounds undergo nucleophilic addition reactions (3 M)
b) Prepare Cannizaro reaction (2 M)
4. Describe the Nucleophilic addition reactions of carbonyl compounds with ammonia derivatives.
5. Describe fluorescence and phosphorescence with suitable diagram.
6. Illustrate the photopolymerization with suitable example.
7. Describe the precautionary measures to be taken in gravimetric estimation. Reason out each measure.
8. Examine the role of DMG and EDTA.

Section C

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

9. a) Explain the preparation, properties and uses of ClF_3 and IF_5 (8 M)
b) Describe the general features of pseudohalogens (2 M)
10. a) Prepare XeF_2 and XeF_6 with suitable equations (6 M)
b) Compute the applications of noble gases due to its inertness (4 M)
11. Examine the mechanism of the following
 - a) Aldol Condensation (3 M)
 - b) Benzoin Condensation (4 M)
 - c) Perkin reaction (3 M)
12. a) Predict the various photochemical reactions in biochemical processes (6 M)
b) Compute high quantum yield with suitable example (4 M)
13. a) Assess the various ways of precipitation (5 M)
b) Evaluate the applications of sequestering agents with suitable examples
