

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 EXAMINATION APRIL/NOV - 2021

SEMESTER - III

20UCHCT3005 - General Chemistry - V

Total Duration : 3 Hrs		Total Marks : 75
MCQ	: 30 Mins	MCQ : 15
Descriptive	: 2 Hrs.30 Mins	Descriptive : 60

Section B

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

1. Write briefly about the mechanism involved in Riemeier – Tiemann reaction.
2. State and explain II laws of thermodynamics.
3. Discuss the variation of Gibbs free energy with temperature, pressure and volume.
4. Illustrate Van Arkel process with neat diagram.
5. What are activity and activity coefficients?
6. Explain diazonium coupling reaction with suitable mechanism.
7. Discuss the classification of silicates.
8. Write briefly about steel alloys and its uses.

Section C

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

9. Derive Gibbs free energy equation and mention its applications.
10. Discuss properties, structure and uses of diborane.
11. Write the extraction process involved in Uranium.
12. a) Write short notes on Trouton's rule.
b) Discuss the entropy changes involved in reversible process.
13. Discuss the orientation of monosubstituted benzenes and their reactivity.