

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 - III

20UCHCT3005 - General Chemistry V

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

1. How would you distinguish between primary, secondary and tertiary alcohol by Lucas test.
2. Explain the mechanism of Nitration of benzene.
3. Write Troutons rule and it's applications.
4. What are the limitations of first law of thermodynamics. Justify the need of second law.
5. Derive Gibbs-Helmholtz equation.
6. How do you determine the Fugacity of a gas?
7. Enumerate the uses of borazole.
8. What are important ores of titanium? How is it extracted?

Section C

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

9. Write notes on a) Kolbes reaction
b) Riemer-Tiemann reaction. c) Gatterman reaction.
10. Describe Carnots cycle for establishing the maximum convertibility of heat into work. How does it lead to the definition of second law of thermodynamics.
11. Discuss chemical potential and it's variation with temperature and pressure.
12. What are carbides? Name the different types of carbides with suitable examples.
13. Explain the following terms
a) Annealing b) Hardening c) Tempering.
