

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 - II

**20UCHCT2003 - General Chemistry-III**

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

### Section B

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

1. Classify dienes and comment on their stability.
2. Illustrate the acidity of ethylene.
3. Solve the relationship between  $C_p$  and  $C_v$ .
4. Describe any three types of heat of reaction.
5. Define the following terms (i)accuracy (ii)precision (iii)significant number.
6. Predict the product of propene after following reactions  
(i)NBS (ii)hydroboration (iii)ozonolysis.
7. Illustrate the concept heat and work.
8. Justify the importance of various types of error analysis.

### Section C

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

9. (a)Prepare alkenes by the following methods  
(i)dehydrogenation (ii)dehydrohalogenation (iii)dehydration. (6)  
(b)Describe hydrobromination of propene in the presence of peroxide. (4)
10. Prepare acetylene and write any four chemical properties of it.
11. Diagnose the following thermodynamic processes  
(i)cyclic (ii)reversible (iii)irreversible (iv)isothermal (v)adiabatic.
12. Solve Kirchhoff's equation.
13. Determine the mean, median and coefficient of variation of the following set of values 10,11,12,14,15,17,20.

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