

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 - I

17UCHCT1001 - General Chemistry - I

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. State and explain Saytzeff's rule.
2. Explain the chemical bonding in NO molecule using MOT.
3. Write briefly about first aid techniques employed in chemical laboratory.
4. Discuss the band theory of metals.
5. Discuss the mechanism of E1 and E2 reactions.
6. Explain sp^3 hybridisation with suitable example.
7. Distinguish between inductive effect and electrometric effect.
8. State and explain Fajan's rules with suitable examples.

Section C

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

9. Give the postulates of VSPER theory. How is it useful in the determination of shape of H_2O and BF_3 molecule?
10. Discuss the stability of cabocations, carbanions and free radicals.
11. Discuss the twelve principles of green chemistry.
12. Explain the factors affecting SN^1 and SN^2 mechanism.
13. a) Write briefly about the hazardous chemicals.
b) Write about the safety measures in handling toxic chemicals.

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