

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 - NOV'2024

SEMESTER - III

22UCHCT3006 - Chemistry of s and p Block Elements

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. What is meant by diagonal relationship? Analyse in what aspects does lithium resemble magnesium?
2. How dinitrogen tetroxide is prepared? Describe its nature.
3. Discuss the bonding and structure of SO_3 .
4. List few industrial applications of noble gases.
5. Explain the electron deficiency nature of boron compounds.
6. Describe the evidence for the statement -metallic character increases on going down the group 15.
7. The chemistry of oxygen is unique compared to those of the other members in its group. Validate this fact.
8. How does water react with XeF_2 , XeF_4 , and XeF_6 ?

Section C

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

9. Discuss the complexation tendencies of s block elements.
10. In detail explain the preparation and structural characteristics of silicones.
11. Describe the chemistry of the oxides of nitrogen.
12. Outline the principle of the contact process for the preparation of sulphuric acid.
13. What are Pseudo halogens? Analyze and explain the similarities with halogens and pseudohalogens.
