

First Semester Internal Examination, October 2025
Major Course in Chemistry
Inorganic Chemistry - I
CHE1CJ101

Time: 1 Hr

Max Marks: 35

Name:	Marks Scored	Section A		Total Marks
		Section B		
		Section C		
Class:				

Section A

(Each question carries 3 marks, Max marks for section – 7)

1. Define normality. Calculate the normality of a solution containing 20 g of NaOH in 2 L?
2. Differentiate between iodometric and iodimetric titration?
3. Arrange Cl, O, N and F in the order of increasing electron affinity and justify?

Section B

(Each question carries 6 marks, Max marks for section – 18)

4. Explain complexometric titration and give one practical application?
5. Explain the shapes of acid-base titration curves for different types of acids and bases?
6. A) What is ionisation energy? Explain its trends in a group and along a period?
B) Arrange Li, Be and B in the increasing order of ionisation energy and explain your answer?
7. Write the Born-Lande equation and explain the terms in detail?

Section C

(Answer any one question, Each question carries 10 marks)

8. A) Describe different types of redox reactions?
B) Differentiate between acid-base, adsorption, redox and complexometric indicators with suitable examples?
9. Discuss Born-Haber cycle with respect to NaCl. Write the applications of lattice energy determination?