

School of Basic and Applied Sciences

Chemistry
ETE - Jun 2023

Time : 3 Hours

Marks : 50

Sem II - MBS24T1103 - Reaction mechanism and Basics of group theory

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. Explain the mechanism of base hydrolysis. K2 CO2 (2)
2. What is the main criteria for the inner sphere electron transfer reaction. K1 CO3 (2)
3. Explain the wade rule by giving any example. K2 CO4 (2)
4. Classify the types of metal carbonyls. K2 CO1 (2)
5. Define 18-electron rule using an appropriate example. K1 CO1 (2)
6. Develop the preparation of trans-platin by employing the concept of 'trans effect'. K3 CO3 (5)
7. Analyze the Carbon encapsulated clusters. K4 CO4 (6)
8. Identify the Zintl ions with examples. K3 CO3 (5)
9. Examine are the substitution reactions in octahedral complexes and explain the mechanism of dissociative reactions. K4 CO2 (8)
10. Develop the synthesis of metal carbonyls in brief. K3 CO1 (8)
11. Inspect the plane of symmetry, axis of symmetry and dihedral plane with examples. K4 CO5 (8)