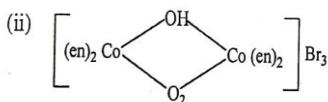
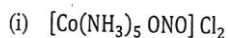


4th Sem (H) Internal Examination- 2023

SET A

1. Write the IUPAC name of the following: 2



2. How does CFC deplete Ozone layer ? 3

3. Draw the possible isomers of $[\text{Co}(\text{en})(\text{NH}_3)_2\text{BrCl}]$. Predict which of them will be optically active ? 5

4th Sem (H) Internal Examination- 2023

SET B

1. Why are interhalogen compounds are more reactive than halogens(except fluorine) ? 2

2. $[\text{Cr}(\text{en})_2\text{Cl}_2]\text{Cl}$ may be found in two forms. One is violet and the other is green. On reaction with oxalate ion the violet species produces its corresponding oxalate derivative while the green does not. Explain the results. 3

3. What do you mean by chelate effect? Why it is called entropy effect? 5

4th Sem (H) Internal Examination- 2023

SET C

1. Outline a definite structure from the VSEPR theory of the following compounds: XeF_4O_2 and XeO_2F_2 . 3

2. “ π -complexing ligand is essentially a π -acidic ligand but the reverse is not true.”-Justify. 2

3. Write the IUPAC nomenclature of following metal-complexes 2



4. Predict the sites of SCN^- ligand suitable for complexing with Fe^{3+} and Ag^+ , respectively. - Justify your answer. 3