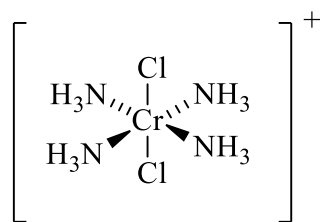
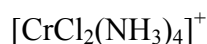
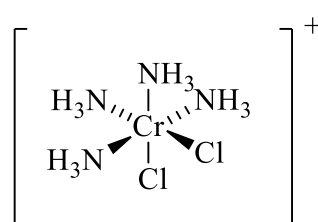
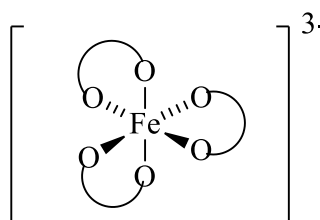
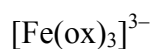
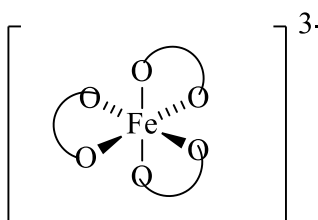
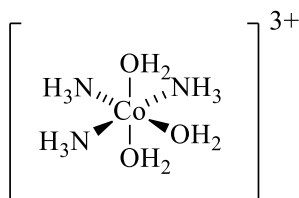
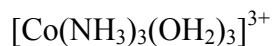
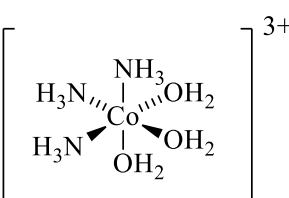


Marks  
9

- The following three complex ions can all exhibit isomerism. Name the type of isomerism involved in each case and draw the structures of the isomeric pairs.  
ox = oxalate =  $C_2O_4^{2-}$

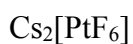
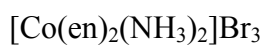
*trans-* isomer*cis-* isomer**Geometrical isomerism**

mirror

**Optical isomerism***mer-* isomerthe  $OH_2$  ligands lie along a meridian*fac-* isomerthe  $OH_2$  ligands define a face of an octahedron**Geometrical isomerism**

- Give the systematic name of each of the following compounds.  
en = ethylenediamine = 1,2-diaminoethane =  $NH_2CH_2CH_2NH_2$

3

**caesium hexafluoridoplatinate(IV)****diamminebis(ethylenediamine)cobalt(III) bromide**