

# Co-ordination Compounds 1.

Degree-II (H) , Paper-III , Group-B

Lecture-8 ,By:-Dr.Rinky, 25/09/2020

## IUPAC Nomenclature Of Coordination Compounds

2. If a coordination compound is neutral, the name of compound is written as one word (ie; the name of neutral complex compound is given without space).
3. In the name of a complex ion or non-ionic complex the ligands are named first but in alphabetical order before the name of the metal ion or atom. The numerical prefixes such as di, tri, tetra, etc. which indicate the number of ligands of a particular type are ignored in determining the order.
4. Oxidation number of metal cation or atom is written in the Roman numeral in parentheses immediately following the name of the metal and parentheses.
5. If the complex ion or neutral complex contains more than one ligand of a particular kind, the Greek prefixes di, tri, tetra, penta, hexa and so forth

are used for 2, 3, 4, 5, 6 and so forth respectively.

6. If the name of the ligand itself contains a Greek prefix, its name is put in parenthesis and the prefixes bis, tris, tetrakis, pentakis, hexakis, heptakis are used for 2, 3, 4, 5, 6 and 7 respectively to specify the number of ligands.

For example, the ligand ethylenediamine already contains di, therefore, if two or three such ligands are present in a complex, the name is bis (ethylenediamine) or tris (ethylenediamine).

7. The prefixes bis, tris, tetrakis and so forth are also used for complex ligands. For example, if two  $\text{CH}_3\text{NH}_2$  ligand are present in a complex, the prefix bis - is used. Thus the name of the ligand is bis (methylamine).

**To be continued in next lecture...**

**J.N.College, Madhubani.  
Dept. of Chemistry.**