

Assessment on d block elements.

1. Why elements do we classify under a specific group called “d”?
2. Give the symbols of 3d elements.
3. 27 is the atomic number of a 3d element called “M”.
 - i) Give the electronic configuration of the ground state atom “M”.
 - ii) Suppose M makes a divalent cation, give the electronic configuration of M^{2+} .
 - iii) How many unpaired electrons does M^{2+} ion have?
4. What are transition elements?
 - i) Why do certain d elements are not considered as transition?
 - ii) Name them
5. Say whether the followings are true or false.
 - a. s block elements make cations preferably than d block ()
 - b. s block elements are denser than d block elements ()
 - c. Metallic lattice of d block elements are much stronger ()
 - d. All the industrial catalysts are d block metals ()
 - e. Cr, Mn, Fe, Zn are called transition metals while Sc is not ()
 - f. Coordination number of Cr is 5 in $[Cr(H_2O)_5 OH]^{2+}$ ()
 - g. Ligands are electron donors while d block cations behave as Lewis acids ()
 - h. Geometry is angular in $[Ag(NH_3)_2]$ ()
 - i. $CuCl_4$ is tetrahedral while $[Cu(NH_3)_4]^{2+}$ is square planar although the coordination number is 4 ()

Name the following complex ions and compounds.

