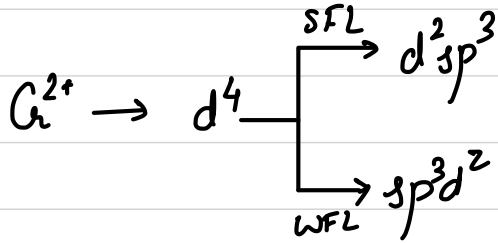
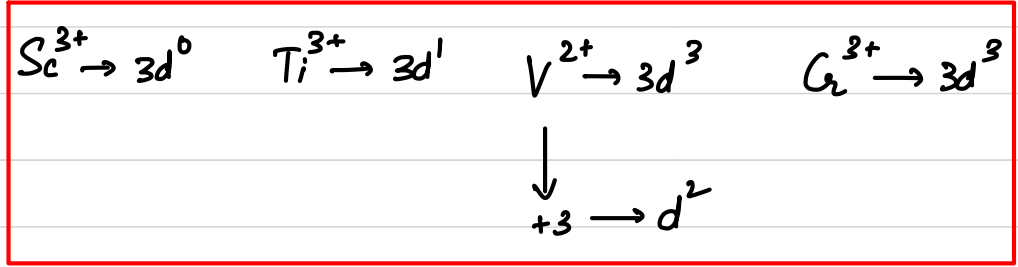


TRICK

$d^2 sp^3 \leftarrow$



$d^1 s^2 \quad d^2 s^2 \quad d^3 s^2 \quad d^5 s^1 \quad d^5 s^2 \quad d^6 s^2 \quad d^7 s^2 \quad d^8 s^2 \quad d^{10} s^1 \quad d^{10} s^2$

Sc Ti V Cr Mn Fe Co Ni Cu Zn

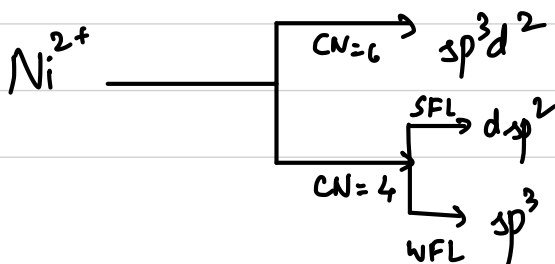
Y Zr Nb Nb Mo Tc Ru Pd Ag Cd

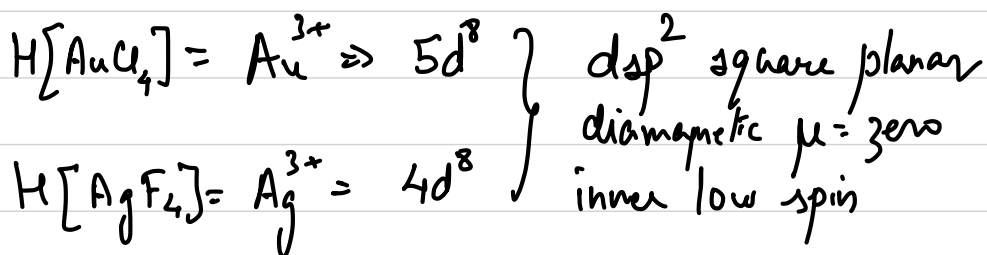
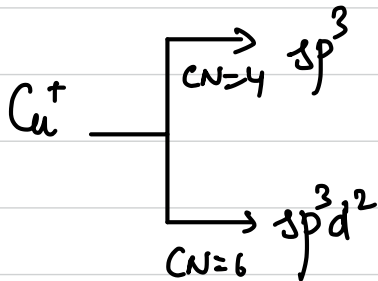
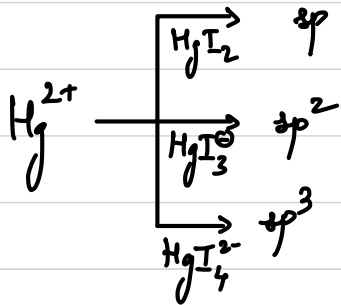
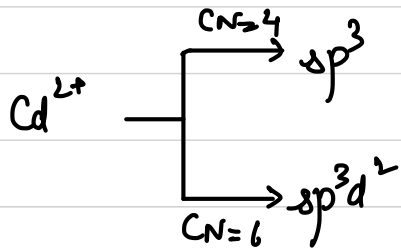
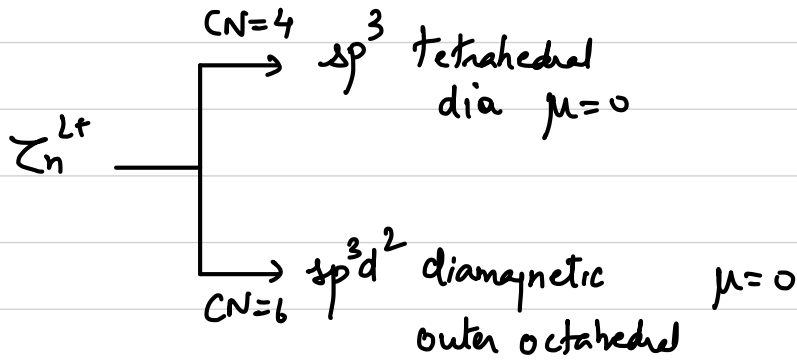
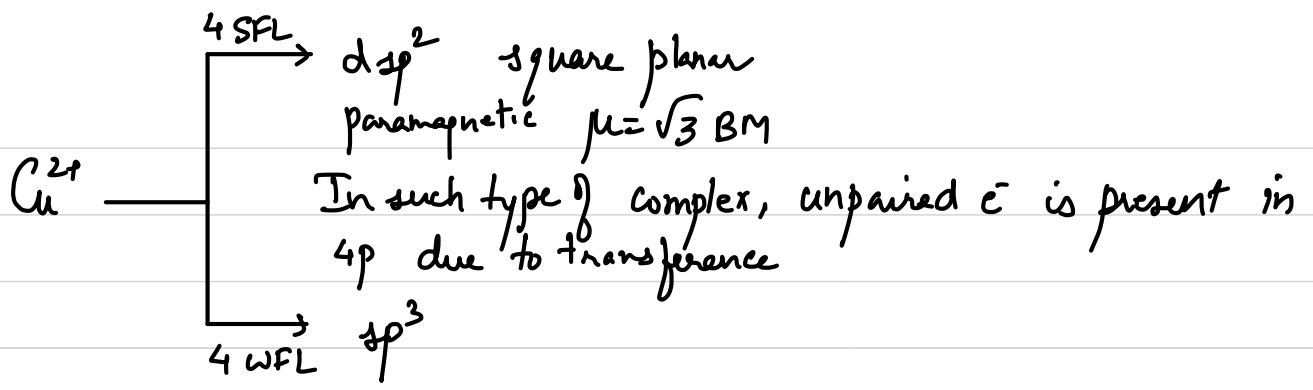
La Hf Ta W Re Os Ir Pt Au Hg

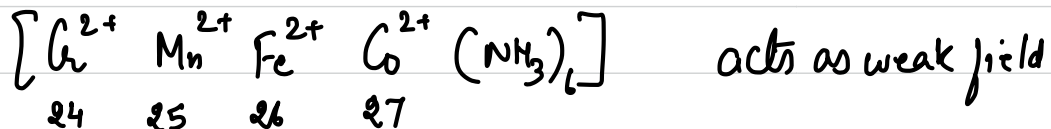
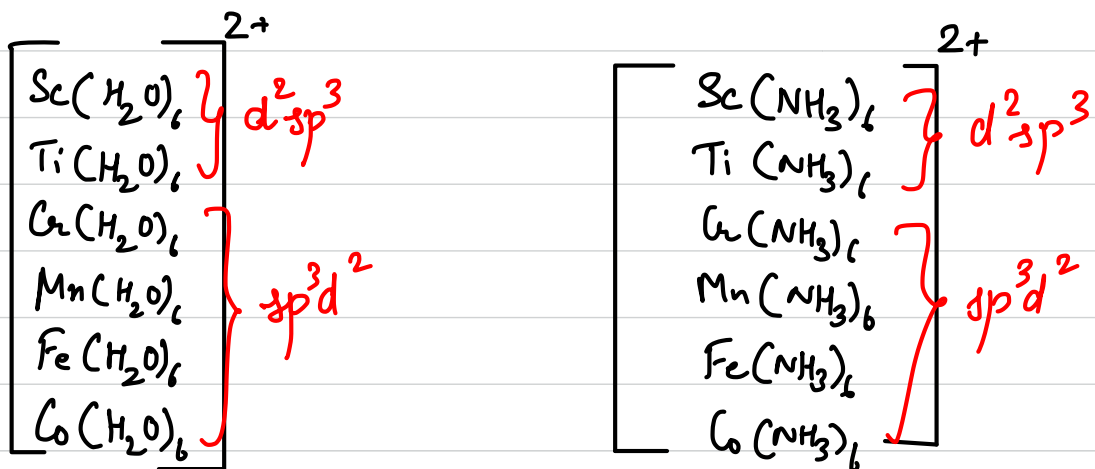
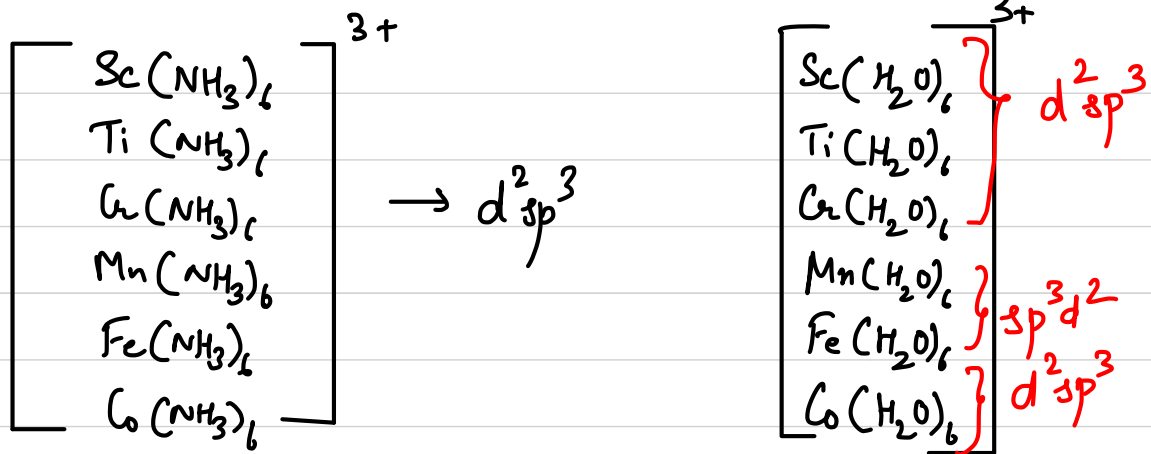
Large splitting energy irrespective of nature of ligand due to high Z_{eff}

CN=4 → square planar (d_{sp^2})

CN=6 → octahedral ($d^2 sp^3$)







Exceptions :-

