

Q31. The electronic configuration of valence shell of Cu is $3d^{10} 4s^1$ and not $3d^9 4s^2$. How is this configuration explained?

Sol: Configuration with completely filled and half-filled orbitals have extra stability. In $3d^{10} 4s^1$, d-orbitals are completely filled and s-orbital is half-filled. Hence, it is a more stable configuration.