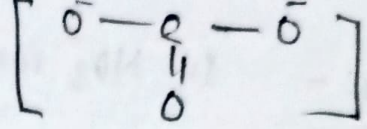


vi) CO₃²⁻ Molecule

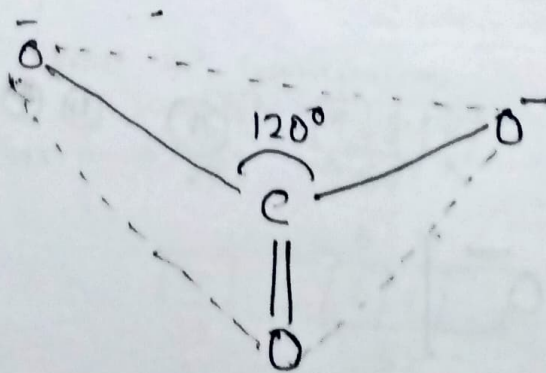
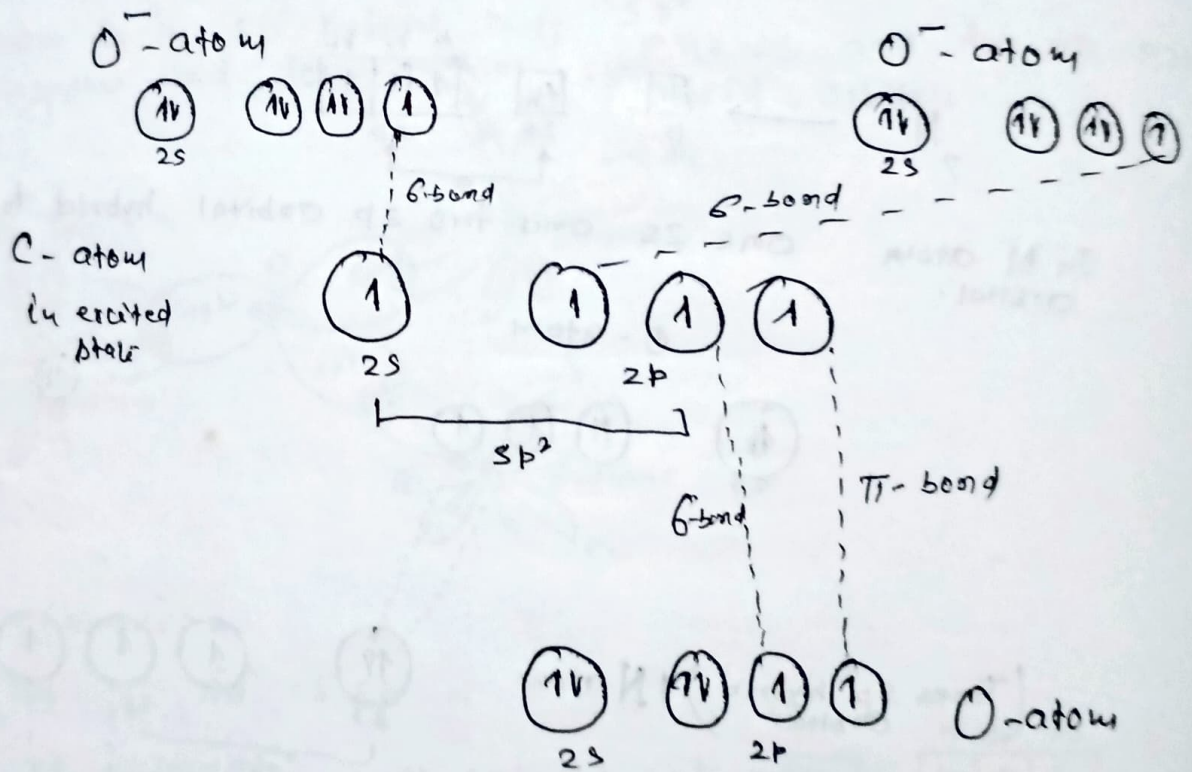


C-atom in ground state $\rightarrow 1s^2 2s^2 2p^2$

C-atom in excited state $\rightarrow 1s^2 2s^1 2p_x^1 2p_y^1 2p_z^1$

O-atom $\rightarrow 1s^2 2s^2 2p^4 \rightarrow 2s^2 2p_x^2 2p_y^1 2p_z^1$

O⁻ atom $\rightarrow 1s^2 2s^2 2p^5 \rightarrow 2s^2 2p_x^2 2p_y^2 2p_z^1$



vii)