

iii) Molecular Orbital Diagram of Configuration of Hetero diatomic molecule like CO. 26

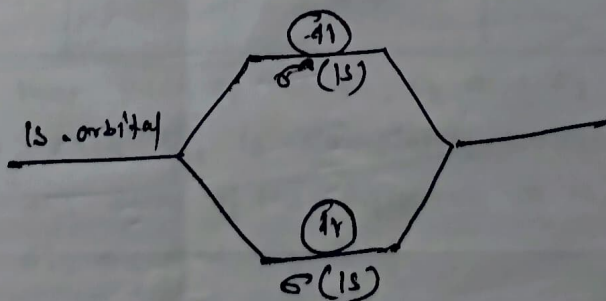
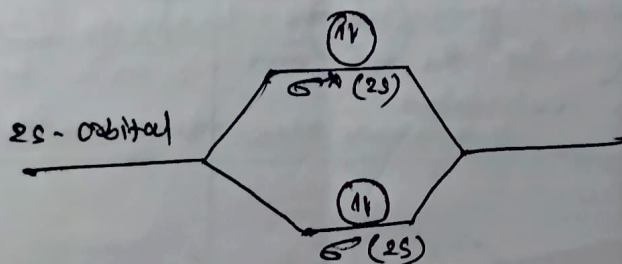
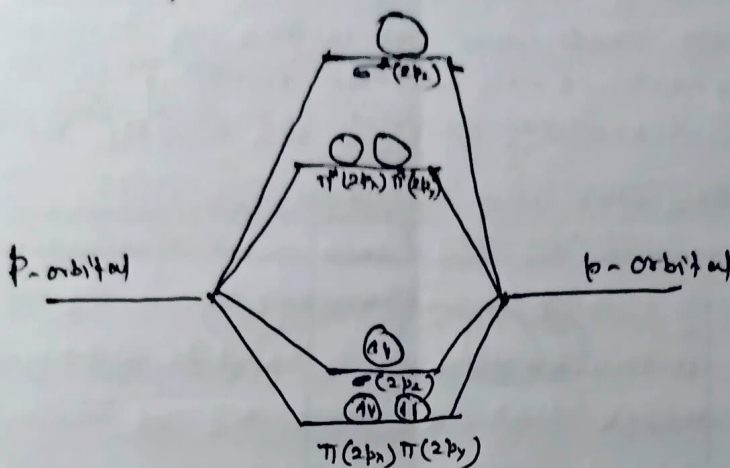
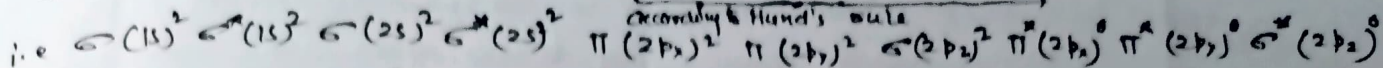
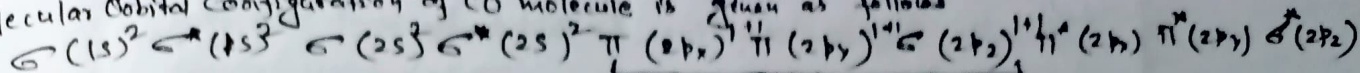
$$6C \rightarrow 1s^2 2s^2 2p^2$$

$$8O \rightarrow 1s^2 2s^2 2p^4$$

$$(6+8)$$

Total number of electron in CO molecule = 14

Molecular Orbital Configuration of CO molecule is given as follows



$$B.O = \frac{\text{Bonding Electron} - \text{Antibonding Electron}}{2}$$

$$= \frac{10 - 4}{2} = \frac{6}{2} = 3$$

$$B.O \text{ of CO Molecule} = 3$$