HINTS & SOLUTION WORKBOOK-1

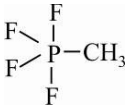
Chemical Bonding - I & II

Daily Tutorial Sheet-12	Level - 3

141.(D) N can form $p\pi - p\pi$ multiple bonds with itself and with carbon and oxygen. P and As due to large size do not show π – bonding tendency .

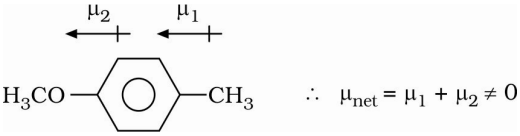
142.(A) PF_4CH_3 – sp^3d (Trigonal bipyramidal)s

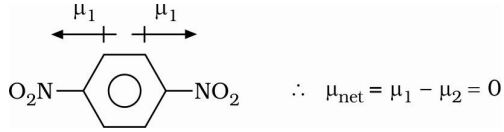
Electronegative elements prefer to attach axial position in TBP geometry.

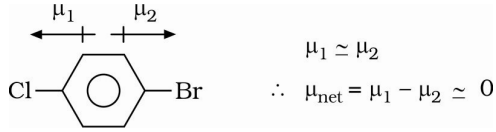


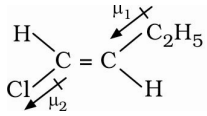
***143.(BC)** $F_2B - C \equiv C - BF_2$ is planar. All atoms are in same plane.
(sp)(sp)

$N(SiH_3)_3$ is planar due to back bonding.

***144.(ABC)** **A.**  $\therefore \ \mu_{net} = \mu_1 + \mu_2 \neq 0$

B.  $\therefore \ \mu_{net} = \mu_1 - \mu_2 = 0$

C.  $\mu_1 \simeq \mu_2$ $\therefore \ \mu_{net} = \mu_1 - \mu_2 \simeq 0$

D.  $\mu_{net} = \mu_1 + \mu_2 \neq 0$

145.(B) N_2 : $KK^*(\sigma 2s)^2(\sigma^* 2s)^2(\pi 2px)^2(\pi 2py)^2(\sigma 2pz)^2$

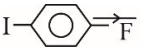
146. **[A – p, r; B – q, s; C – p, s ; D – p, r]**

(A) CO_2

$\overleftarrow{O} = C = \overrightarrow{O}$ $\mu_R = 0$, subtractive

(B) $\mu \neq 0$

Additive

(C)  $\mu_R \neq 0$, subtractive

(D) $\mu_R = 0$, Subtractive