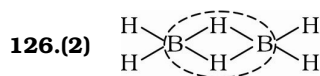
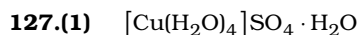


Daily Tutorial Sheet 11

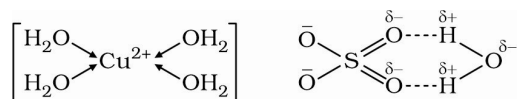
Numerical Value Type for JEE Main



This molecule has two (three centre two electron bonds)

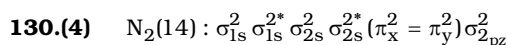


Only one water molecule is hydrogen bonded to sulphate ion in  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ .

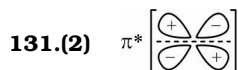


128.(3)  $\text{PCl}_5$  has trigonal bipyramidal shape including 3-equatorial and 2-axial bonds.

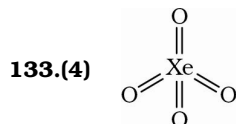
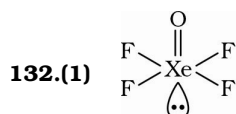
129.(2) In  $\text{C}_2$ , there are two  $\pi$ -bonding molecular orbitals which are completely filled.



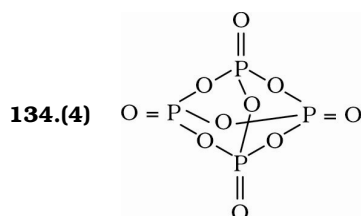
There are 4 non-bonding electrons.



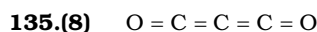
There are two nodal planes in it.



This molecule has four ( $p\pi - d\pi$ ) bonds.

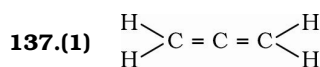


$\text{P}_4\text{O}_{10}$  has 4P = O bonds



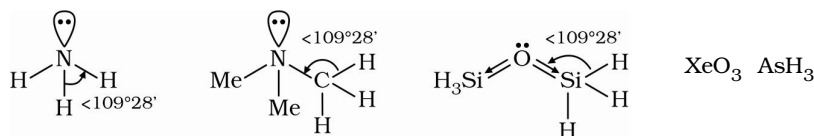
There are eight covalent bonds in  $\text{C}_3\text{O}_2$ .

136.(4) In ice, each  $\text{H}_2\text{O}$  molecule forms four hydrogen bonds.



Only middle carbon atom lies in  $sp$  hybrid state.

138.(5) Species having bond angle equal to or less than  $109^\circ 28'$  and also can act as Lewis base are :



- 139.(4)**  $\text{N}_2^+$ ,  $\text{O}_2$ ,  $\text{B}_2$ ,  $\text{N}_2^{2-}$  have symmetrical electronic distribution in their HOMO and are also paramagnetic.  
 $\text{N}_2^+$  paramagnetic and symmetrical electronic distribution in their HOMO.  
 $\text{O}_2$  paramagnetic and symmetrical electronic distribution in their HOMO.  
 $\text{B}_2$  paramagnetic and symmetrical electronic distribution in their HOMO.  
 $\text{N}_2^{2-}$  paramagnetic and symmetrical electronic distribution in their HOMO.  
 $\text{O}_2^{2-}$  diamagnetic and symmetrical electronic distribution in their HOMO.  
 $\text{C}_2$  diamagnetic and symmetrical electronic distribution in their HOMO.  
 $\text{C}_2^{2-}$  diamagnetic and symmetrical electronic distribution in their HOMO.
- 140.(7)**  $\text{B(OMe)}_2$  and  $\text{HCHO}$  can not form H-bond.