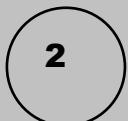


Hybridisation

1. The structure of PF_5 molecule is
- Tetrahedral
 - Trigonal bipyramidal
 - Square planar
 - Pentagonal bipyramidal
2. Which of the following hybridisation has maximum s-characters
- sp^3
 - sp^2
 - sp
 - None of these
3. The PCl_5 molecule is a result of the hybridisation of
- sp^2d^2
 - sp^3d
 - spd^3
 - sp^2d^3
4. Hybridisation involves
- Addition of an electron pair
 - Mixing up of atomic orbitals
 - Removal of an electron pair
 - Separation of orbitals
5. The geometry of sulphur trioxide molecule is
- Tetrahedral
 - Trigonal planar
 - Pyramidal
6. The shapes of BCl_3 , PCl_3 and ICl_3 molecules are all
- Triangular
 - Pyramidal
 - T -shaped
 - All above are incorrect
7. In benzene molecule all $C - C$ bond lengths are equal because
- All carbon atoms are equivalent
 - All carbon atoms are sp^2 hybridised
 - All $C - C$ bonds in benzene, have same order
 - All $C - C$ bonds are single covalent bond
8. Which one is false in the following statements
- Each carbon in ethylene is in sp^2 hybridisation
 - Each carbon in acetylene is in sp^3 hybridisation
 - Each carbon in benzene is in sp^2 hybridisation
 - Each carbon in ethane is in sp^3 hybridisation





- (b) All bonds are coordinate covalent
- (c) H atoms are situated at the corners
of a square
- (d) H atoms are situated at the corners
of a tetrahedron
20. The bond angle in sp^2 hybridisation is
- (a) 180°
- (b) 120°
- (c) 90°
- (d) $109^\circ 2'$

