

XI Chemistry Worksheet

Time: 30 min Ch#4 : Chemical Bonding and Molecular Structure -04 Full Marks: 20

Instructions:

1. All questions are compulsory.
2. Please give the explanation for the answer where applicable.

Q1 - Write the differences between sigma and pi bonds.

(3 Marks)

Q2 - What is dipole moment? What is its unit? What is its significance?

(3 Marks)

Q3 - Draw the structure of following molecules and arrange them in decreasing order of bond angles.
 H_2O, NH_3, CH_4, CO_2 .

(5 Marks)

Q4 - Calculate the Bond order of H_2 molecule.

(2 Marks)

Q5 - Write the shapes of CH_4 and CO_2 .

(1 Mark)

Q6 - What is the structure of Sulphur tetrafluoride?

(1 Mark)

Q7 - Write the type of hybrid orbitals associated with B in BF_3 and P in PCl_5

(1 Mark)

Q8 - Why free rotation about a sigma bond is not possible?

(1 Mark)

Q9 - Which is more stable O_2 or N_2 and. Why?

(1 Mark)

Q10 - Why $FeCl_3$ has greater covalent character than $FeCl_2$?

(1 Mark)

Q11 - Why ethyl alcohol is completely soluble in water?

(1 Mark)