XI Chemistry Worksheet

Time: 30 min **Ch#4 : Chemical Bonding and Molecular Structure -03** **Full Marks: 20**

Instructions:

1. All questions are compulsory.

2. Please give the explanation for the answer where applicable.

Q1 - Define octet rule. Give two examples of compounds, which do not follow octet rule.

(2 Marks)

Q2 - Draw Lewis structures of

(i) AlF_3 (ii) CaO (iii) H_2S (iv) C_2H_4 (v) HBr

(5 Marks)

Q3 - Calculate the sigma and pi bonds in the following compound

$(CH_3)\ C_6H_4(OH)$

(2 Marks)

Q4 - Define bond length and bond angle.

(2 Marks)

Q5 -Write the mechanism for chlorination of methane.

(3 Marks)

Q6 - (i)Name the standard state of carbon.

(ii).Which of the following compound will have highest solubility in water, Chloroform or carbon disulphide or methyl alcohol or carbon tetrachloride. Give reason also.

(3 Marks)

Q7 - Predict the dipole moment of a molecule of the type AB4 with square planar arrangement of B atoms.

(1 Mark)

Q8 - Which type of hybridization is present in SF6?

(1 Mark)

Q9 - What type of atomic orbital can overlap to form molecular orbital?

(1 Mark)