



INDIAN SCHOOL DARSAIT



DEPARTMENT OF CHEMISTRY

Subject: Chemistry		Topic : chemical bonding		Date of Worksheet: 10.9.2018	
Resource Person: Rohitha		Date of Submission: _____			
Name of the Student: _____		Class & Division: XI		Roll Number: _____	
1	What is octet rule?				1
2	Define the following a) bond length b) bond angle c) bond order				1 each
3	Which of the following molecules is superoctate(expanded octet)? CO ₂ , ClF ₃ , SO ₂ , IF ₅				1
4	Why NH ₃ possess a pyramidal shape? Explain.				2
5	Complete the table				2
	type	No of electron pairs	geometry	Bond angle	examples
	AB ₅				
	AB ₃				
6	Differentiate between ionic bond and covalent bond.				2
7	Calculate the formal charge of all the atoms in the following a) SO ₂ b) NH ₄ ⁺ c) H ₂ SO ₄				2 each
8	What are the favorable condition for the formation of ionic bond?				2
9	Define lattice enthalpy. On what factors do they depend?				3
10	What are the important postulates of VSEPR theory?				3
11	Give the definition for bond dissociation enthalpy. Also explain the factors on which it depend.				3
12	Briefly explain the limitations of octet with proper examples.				3
13	Predict the shapes of the following using VSEPR model BCl ₃ , SiCl ₄ , H ₂ S, PH ₃ , SF ₆ , PCl ₅				3
14	Draw the Lewis structures of the following a) HCOOH b) SiCl ₄ c) H ₂ S				3