

ECAT Chemistry Chapter 6 Chemical Bonding

Sr	Questions	Answers Choice
1	XeF ₄ has shape of	A. Sphere B. Trigonal bipyramidal C. Tetrahedral D. Square planar
2	During the formation of a chemical bond the potential energy of the system	A. Decreases B. Increases C. Does not change D. None of these
3	Among the alkaline earth metals the element forming predominantly covalent compounds is	A. Be B. Mg C. Sr D. calcium
4	Planar geometry of molecules is due to	A. sp ³ hybridization B. sp ² hybridization C. sp hybridization D. P - p overlap
5	Which of the following is a polar molecules	A. Carbon dioxide B. Carbon tetrachloride C. Methanol D. Ethane
6	Which of the hydrogen halides has the highest percentage of ionic character	A. HCl B. HBr C. HF D. HI
7	The driving force for making a bond is	A. To attain noble gas electronic configuration B. To make soled compounds C. To make different compounds D. To make gaseous substances
8	Ionic radius, in a period from left to right	A. Increases B. Decreases C. Decreases then increases D. Increases and decreases
9	In which of the following theories the hybridization is considered	A. Vsepr B. Lewis C. Molecule orbital D. Valence bond
10	Which of the following has unchanged valency?	A. H B. Na C. Fe D. Oxygen
11	If two lone pairs are present then bond angle of tetrahedral compound reduces to _____ degrees	A. 109.5° B. 107.5° C. 104.5° D. None
12	The degree of polarity of molecule is known as its	A. Dipole moment B. Moment arm C. Bond energy D. Ionic character
13	Two H-atom combine to form a strong H ₂ molecule due to	A. Increase in potential energy B. Decrease in potential energy C. Energy remains unchanged D. Distance is increased
14	Which of the following has highest bond order	
15	The electronegativities of F, Cl, Br and I are 4.0, 3.0, 2.8, 2.5 respectively. Hydrogen halide with a high percentage of ionic character is	A. HF B. HCl C. HBr D. HI
		A. lonest bond

- 16 Which one of these is weakest?
B. Covalent bond
C. Metallic bond
D. Van der Waal's forces
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- 17 Coordinate covalent bond is present in the molecules
A. H_2O
B. BF_3
C. SiO_2
D. SO_2
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- 18 In sp^2 hybridization bond angle is _____
A. 120°
B. 180°
C. 109.5°
D. None
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- 19 Size of an anion is increased as compared to its atom because of the
A. Addition of new shell
B. Repulsion of electrons in the valence shell
C. Decrease in nuclear charge
D. Increase in the nuclear charge
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- 20 Maximum hydrogen bonds in water are
A. 4
B. 3
C. 2
D. 8
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