Chemistry Fsc Part 1 Chapter 6 Online Test

Sr	Questions	Answers Choice
1	An ionic compound $A^{+}B^{-}$is most likely to be formed when	A. The ionization energy of A is high and electron affinity of B is low B. The ionization energy of A is low and electron affinity of B is high C. Both the ionization energy of A and electron affinity of B are high D. Both the ionization energy of A and electron affinity of B are low
2	The number of bonds in nitrogen molecule is	A. One o and oneπ B. One o and twoπ C. Three sigma only D. Two o and twoπ
3	Which of the following statements is not correct regarding bonding molecular orbitals	A. Bonding molecular orbitals possess less energy than atomic orbitals from which they are formed B. Bonding molecular orbitals have low electron density between the two nuclei C. Every electron in the bonding molecular orbitals contributes to the attraction between atoms D. Bonding molecular orbitals are formed when the electron waves undergo constructive interference
4	Which of the following molecules has zero dipole moment	A. NH₃ B. CHCl₃ C. H₂O D. BF₃
5	Which of the hydrogen halides has the highest percentage of ionic character	A. HF B. HBr C. HCl D. HI
6	Which of the following species has unpaired electrons in anti-bonding molecular orbitals	A. O₂⁺² B. N₂⁻² C. B₂ D. F₂
7	The octet rule in not followed in the formation of	A. NF₃ B. CF₄ C. CCl₄ D. PCl₅
8	The shielding effect of the inner electrons is responsible for	A. Increasing ionization energy values B. Decreasing ionization energy values C. Increasing electron affinity D. Increasing electonegativity
9	Those elements whose electronegativities are 1.2 and 3.2, react to form	A. Ionic bond B. Covalent bond C. Gaseous substance D. Definiting a liquid substance
		A. They are non-electrolytes in the

10	Which of the following is true for ionic compounds	molten state B. They have bonds which are directional C. They conduct electricity in solid state D. They are generally more soluble in polar solvents than in non-polar solvents
11	Fluorine molecule (F_2) is formed by the overlap of	A. s - s orbital B. s - p orbital C. p - p head on overlapping of orbitals D. p - p parallel overlapping of orbitals
12	The nature of bond in diamond is	A. Electrovalent B. Metallic C. Coordinate covalent D. Covalent
13	Which of the following molecules has a co-ordinate covalent bond	A. NH₄Cl B. NaCl C. HCl D. AlCl₃
14	The shape of H_3O is	A. Tetrahedral B. Angular C. Trigonal planer D. Pyramidaj
15	VSEPR theory was proposed by	A. Nyholn and Gillespie B. Kossel C. Lewis D. Sidwick
16	If we want to change $O_2$to O_2^{-1}The electron is to be placed in	
17	SP^3-hybridization in important in describing the bonding in	
18	Which compound does not obey the octet rule.	A. NH3 B. BCl3 C. H2O D. CH4
19	Which of the following molecule obey octet rule.	A. BF3 B. BCl3 C. NH2 D. SF6
20	Which element has highest ionization potential.	A. Li B. B C. Be D. C
21	The tendency of an tom to attract shared pair of electron towards itself is called its.	A. Ionization energy B. Electronegativity C. Electron affinity D. dipole moment
22	In methanol, bond between carbon and oxygen.	A. Ionic B. Non polar C. Polar D. Co - ordinate
23	Which of the following has coordinate covalent bond.	A. NH4 B. NaCl C. HCl D. AlCl3
24	Which of the following has bond angle of 120 ^{o}	A. BeCl2 B. BF3 C. CH4 D. NH3
25	The shape of Sncl2 molecule is.	A. Linear B. Angular C. Trigonal planar D. Tetrahedral
26	The molecular shape of SO3 is.	A. Triangular planar B. Tetrahedral C. Pyramidal D. Linear
27	The structure of water molecule is.	A. angular B. Linear C. Trigonal

		D. Trigonal pyramidal
28	The bond angle in NH3 molecule is	A. 109.5^o B. 107.5^o C. 104.5^o D. 106^o
29	Carbon atom in methane in hybridized.	A. sp3 B. Sp2 C. Sp D. dsp3
30	Which of the following has linear structure.	A. CO2 B. NH3 C. CH4 D. H2O
31	The bond order of N2 molecule is.	A. 1 B. 2 C. 3 D. 4
32	The paramagnetic behaviour of oxygen is well explaned on the basis of.	A. M.O Theory B. N.B Theory C. VSEPR Theory D. CF theory
33	The number of bonds in oxygen molecules.	A. One sigma and One pi B. One sigma and two Pi C. Three sigma only D. Two sig and two pi
34	Which of the following species has unpaired electrons in anti bonding molecular orbitals	A. O2 B. N2 C. B2 D. F2
35	Forces of attraction between He atoms are.	A. Hydrogen bonding B. London forces C. Debye forces D. Ion dipole forces
36	Which of the following has highest percentage ionic character.	A. HCl B. HF C. HBr D. HI
37	The H - H Bond energy in KJ mole -1 is.	A. 346 B. 436 C. 463 D. 336
38	Molecule in which the distance between two carbon atoms in the largest is.	A. C2H6 B. C2H4 C. C2H2 D. C6H6
39	Dipole moment of CO2 is.	A. 1.25 D B. 1.85 D C. 3.1 D D. Zero
40	The carbon atom is C2H4 is.	A. sp3 hybridized B. sG2 hybridized C. Sp hybridized D. dsG2 bybridized
41	Which molecule has sG2 hybridization.	A. CH4 B. C2H4 C. C2H2 D. C2H5
42	The molecule having zero dipole moment is.	A. NH3 B. CHCl3 C. H2O D. BF3
43	Which of the hydrogen halide has the highest percentage of ionic character.	A. HCl B. HBr C. HF D. HI
44	Dipole Moment of H2O is.	A. 1.61 D B. 1.85 D C. 0.95 D D. 1.49 D
45	Molecule has zero dipole moment.	A. CO B. H2S

	_____ molecule has zero dipole moment.	C. SO2 D. CH4
46	Percentage ionic character of HF is.	A. 100% B. 80% C. 43% D. 57%
47	The number of bonds in nitrogen molecules is.	A. One pi and one sigma B. One pi and two sigma C. Thre sigma only D. Two pi and one sigma
48	Which of the following molecule has zero dipole moment.	A. NH3 B. CHCl3 C. H2O D. BF3
49	Which of the hydrogen halides has the highest percentage of ionic character.	A. HF B. HBr C. HCl D. HI
50	Which of the following species has unpaired electrons in antibonding molecular orbitals.	A. O2⁺² B. N2⁻² C. B2 D. F2
51	Which of the following molecules contain six bonding electrons.	A. CH4 B. CO2 C. BF3 D. H2S
52	Which has zero potential energy.	A. When H atom is independent B. When two H atoms combine to form H2 molecule C. When two H atoms super impose to each other D. When two H atoms have weak attraction between them
53	Which statement is true about Na and Na+	A. size of Na is greater than Na+ B. Size of Na is smaller than Na+ C. Both have equal size D. Both have same properties
54	Which element has highest ionization potential	A. Li B. Na C. K D. Rb
55	In a period of periodic table, atomic radii	A. Increases B. Decreases C. Remain same D. First decreases than increases
56	In a group of periodic table, ionization energy.	A. Decreases B. Increases C. Remains same D. First increases than increases
57	Chlorine atom and chloride Cl- ions	A. Have same chemical and physical properties B. Are allotropes of chlorine C. Have same number of electrons D. Have same number of proton
58	Along period of periodic table shielding effects.	A. Increases B. Decreases C. Remain constant D. First increases than decreases
59	Which pair are iso electronic.	A. Na+ and Cl- B. Na+ and Mg+2 C. N-3 and P-3 D. H+ and H-
60	Ionic compound do nto show the phenomenon of Isomerism because bond are.	A. Directional and rigid B. Non directional and rigid C. Non directional and non rigid D. All above
61	Which one of the following has the greater ionic characters in it.	A. HF B. HCl C. H2O D. H2
		A. CCl4 B. HCl

62	Which of the following is a polar molecule	B. HCl C. BF_3 D. CO_2
63	Which one of the following has no tendency of form coordinate covalent bond with H^+	A. NH_3 B. H_2O C. CH_4 D. CH_3OH
64	What type of bonding is present in NH_4Cl	A. Ionic B. Covalent C. Co ordinate covalent D. All of these
65	In which of the following Paris, do the elements form a compound by sharing electrons.	A. carbon and chlorine B. Lithium and iodine C. Neon and oxygen D. Potassium ad bromine
66	Suppose a new element 'J' has discovered and has seven electron in the valence shell. Which statement about this element would be correct.	A. It is monatomic B. It form covalent bond with hydrogen C. It forms stable positive ion D. It forms covalent bond with group IA element
67	Which molecules is 100% covalent	A. H_2 B. H_2O C. HF D. NH_3
68	Ionic bond is formed by combination of groups	A. IA and VIII B. II A and VII A C. IV A and VA D. VIA and VII A
69	Which one of the following correctly describe the shape of NH_3 molecules.	A. tetrahedral B. Pyramidal C. Angular D. Square planar
70	Which one of the following molecule have angle of 120 ^{o}	A. $BeCl_2$ B. BF_3 C. CH_4 D. NH_3
71	A molecule has two ions pairs and two bond pairs around the central atom. The shape of molecule is.	A. Linear B. Pyramidal C. Angular D. Tetrahedral
72	Both CH_4 and NH_3 are four electron pair system the angles of CH_4 and NH_3 are 109.5^o and 107.5^o respectively. This deviation is due to.	A. Hydrogen bonding in ammonia B. Lone pair attraction C. Lone pair occupy more space and repel to other bond pairs D. Lone pair lone pair repulsion
73	In which one of the following pairs do the molecule have similar shape.	A. BF_3 and $AlCl_3$ B. CO_2 and H_2O C. CH_4 and PH_3 D. NH_3 and BCl_3
74	In which molecule all atoms are coplanar.	A. CH_4 B. BF_3 C. NH_3 D. PH_3
75	How many sigma and pi bonds are present in C_2H_2.	A. one sigma and two pi B. two pi and one sigma C. Two pi and three sigma D. Three pi and two sigma
76	As compared to pure atomic orbitals the hybrid orbitals have.	A. Low energy B. High energy C. Same energy D. None of these
77	The percentage of s characters in sp3 hybrid orbital is.	A. 25% B. 33.3% C. 50% D. 75%
78	In $BeCl_2$, the covalent bond is formed due to overlap of	A. sp -s B. sp -p C. sp2 -p D. sp3 -p
79	Which of the following molecules have unpaired electrons in the bonding molecular orbitals	A. N_2 B. O_2

79	Which of the following molecules have unpaired electrons is the bonding molecular orbitals.	C. B2 D. F2
80	Which one of the following molecules is paramagnetic.	A. H2 B. He C. N2 D. O2
81	According to MOT, which molecular orbital has highest energy.	A. sigma 1s B. pi+ 2S C. pi 2py D. Pi+ 2px
82	A molecular orbital can accommodate maximum electron	A. 2 B. 6 C. 8 D. 10
83	What is bond order.	A. Number of unpaired electrons B. Number of paired electrons C. Number of electrons present in antibonding molecular orbital D. Number of bond formed between two atoms after overlap
84	Which of the following molecules have highest bond energy	A. F2 B. Cl2 C. Br2 D. I2
85	Which bond has more ionic characters in it.	A. C - F B. N - F C. O - F D. F - F
86	Bond energy depends upon	A. Electronegativity B. Size of atom C. Bond length D. All of these
87	Dipole moment is defined as.	A. Charge x distance B. Charge x Debye C. Charge x displacement D. Charge x bond energy
88	BF3 has zero while NH3 has 1.49 D dipole moment because.	A. B is less electronegative than N B. F is more electronegative than N C. BF3 is pyramidal while NH3 is planar D. NH3 is pyramidal while BF3 is trigonal planar