ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	When elements of group I react with the elements of group VIA theory form	A. Ionic bond B. Covalent bond C. Polar bond D. None
2	Mg becomes isoelectronic with neon when it	A. Loses two electrons B. Gains two electrons C. Loses 1 electron D. Gains 1 electron
3	Two H-atom combine to form a strong H_2molecule due to	A. Increase in potential energy B. Decrease in potential energy C. Energy remains unchanged D. Distance is increased
4	The formation of compounds like PF_5, BCl_3, SF_6indicates that	A. These halides are ionic B. These halides are covalent C. They are Lewis acids D. Octet rule not obeyed so the rule is not universal
5	The covalent bonds are	A. Unidirectional B. Bi-directional C. Non-directional D. Multi-directional
6	Noble gases have the electronic configuration with their valance shell ns^2np^6except one	A. He B. Ne C. Kr D. Xe
7	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
8	Which of the following species has unpaired electrons in antibonding molecular orbitals	
9	Which of the hydrogen halides has the highest percentage of ionic character	A. HCl B. HBr C. HF D. HI
10	In sp^2hybridization bond angle is _____	A. 120° B. 180° C. 109.5° D. None
11	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
12	The number of bonds in nitrogen molecule is	
13	Question Image	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 off affinity of B are high D. Both the ionization energy of A and electron affinity of B are low
14	Which for the following has no dipole moment	A. HCl B. H₂S

		C. H₂O D. CO₂
15	$SnCl_2$have _____ shape	A. Planner B. Tetrahedral C. Angular D. None
16	The bond angle depends upon the	A. Types of bonds B. Number of bonds C. Non-bonding electron pairs D. All of the above
17	Molecular orbital picture of N_2 indicates	A. One unpaired electron B. Two unpaired electron C. No unpaired electron D. None of these
18	On the basis of VSEPR theory $SO_2$is a	A. Liner molecule B. A bent molecule C. A strong molecule D. A gaseous molecule
19	The bond angles in methane $CH_4$are equal to	A. 109.5° B. 107.5° C. 104.5° D. 120°
20	The shape of methanol, ammonia and water molecule can be explained by assuming	A. Sp³hybridization B. Sp²hybridization C. Sp hybridization D. All of these
21	Which of the following is a polar molecules	A. Carbon dioxide B. Carbon tetrachloride C. Methanol D. Ethane
22	Which of the following has highest bond order	
23	A bond between two atoms may be obtained by sharing of electrons such a bond is called	A. An ionic bond B. A coordinate bond C. A dative bond D. A covalent bond
24	The electronegativity of elements in a period from left to right	A. Decreases B. Increases C. First decreases then increases D. First increases then decreases
25	The electron affinity of chlorine may be represented by the equation	
26	Question Image	A. 154 pm B. 133 pm C. 120 pm D. 150 pm
27	The equation for the first ionization energy of hydrogen is	
28	Ionic radius, in a period from left to right	A. Increases B. Decreases C. Decreases then increases D. Increases and decreases
29	The atomic radius of hydrogen is 37	A. Pecometer B. Manometer C. Angstrom D. Micrometer
30	When two hydrogen atoms approach to form a chemical bond	A. The repulsive forces dominate the attractive forces B. The attractive forces, dominate the repulsive forces C. The energy of atoms increases D. The two atoms start ionization