

ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Which of the following is not a state function	A. Pressure B. Temperature C. Enthalpy D. Amount of substance
2	Spontaneous reaction is such in which the system decreases its _____	A. Energy B. Free energy C. Entropy D. All
3	According to the SI-system heat contents are measured in units of	A. Calorie B. Joules C. Ergs D. Watts
4	A reaction in which heat is given out is	A. An endothermic reaction B. An exothermic reaction C. A thermochemical reaction D. An energetic reaction
5	When a bond breaks	A. Heat is evolved B. Heat is absorbs C. No change in heat contents takes place D. Temperature increases
6	Termochemistry is the study of chemical reaction accompanying	A. Heat change B. Rate change C. Mass change D. Volume change
7	Which of the following molecules have multiple bonds	A. CH_4 B. C_2H_4 C. C_2H_6 D. CCl_4
8	Which of the following has polar bond	A. O_2 B. N_2 C. HCl D. Cl_2
9	The number of electron pairs shared in carbon tetrachloride molecule is	A. 2 B. 3 C. 4 D. 1
10	Atoms obey octet rule by sharing-electrons making covalent bonds according to	A. Lewis and Kossal theory B. Valance bond theory C. VSEPR theory D. Molecular orbital theory
11	Generally the bond formed by metals with non-metals is	A. Ionic B. Covalent C. Polar D. Non- polar
12	An ionic compound M_2S_3 is formed by the metal M,, the metal is	A. Ca B. Ba C. K D. Al
13	Atomic number of Al is 13. When it forms ionic bond with oxygen the number of electrons lost by 1 Al atom is	A. 1 B. 2 C. 3 D. 4
14	All covalent bonds formed between the two atoms are non-polar when	A. Covalent bond between two non-metal atoms B. Covalent bond between metal and non-metal C. Covalent bond between two atoms of same element D. Covalent bond between metal atoms

15	The Electro-negativity difference for ionic bond must be greater than	A. 1.6 B. 1.7 C. 1.8 D. 1.0
16	Electronegativity values of the elements F, Cl and Br vary	A. F > Cl > Br B. Br > Cl > F C. Cl > Br > F D. Cl > F > Br
17	From the difference between expected bond energies for the normal covalent bond and experimentally determined values Pauling calculated the values of	A. Ionization potential of elements B. Electron affinity of elements C. Electronegativity of elements D. Bond length
18	The tendency of an atom to attract shared electron pair towards itself is called	A. Covalent bond B. Electronegativity C. Ionization potential D. Electronic affinity
19	When of the following is isoelectronic with krypton	A. Ca^{+++} B. Al^{+++} C. Br^{-1} D. I^{-1}
20	The degree of polarity of molecule is known as its	A. Dipole moment B. Moment arm C. Bond energy D. Ionic character
21	Generally electron affinities for elements in a period from left to right	A. Decreases B. Increases C. Remain same D. Increases alternatively
22	When an electron is absorbed in an empty or partially filled orbital of an atom, the energy released is called	A. Ionization energy B. Potential energy C. Electron affinity D. Bond energy
23	In a group the atomic size increase downward due to	A. Addition of electronic shells B. Increase in the proton number C. Repulsion of electrons D. All of the above
24	Ca, Mg, Be, Ba, belong to the same group, the order of their ionization energy values is	A. Be > Mg > Ca > Ba B. Ba > Ca > Mg > Be C. Ca > Mg > Be > Ba D. Ba > Mg > Ca > Be
25	Ionization energies increase from left to right along the period due to	A. Increase in nuclear charge B. Repulsion of electron increases C. Repulsion of protons increase D. Atomic size increase along the period
26	Which of the following charge	A. Li B. Be C. H D. He
27	Generally ionization energy of atoms decreases by	A. Decreases in atomic size B. Increase in atomic size C. Increase in nuclear charge D. None of these
28	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
29	The ionic bonds are	A. Unidirectional B. Bi-directional C. Non-directional D. Multi-directional
30	Shielding effect intervening electrons causes	A. Decreases in atomic radii in a period from right to left B. Increase in atomic radii in a period from left to right C. Decrease in atomic radii down the group D. Increase in atomic radii down the group