Chemical Energetics

Sr	Questions	Answers Choice
1	Born Haber cycle is used to calculate	A. Bond energy B. Heat of hydration C. Lattice energy D. Ionization energy
2	The energy required to break a chemical bond is called.	A. Ionization energy B. Bond energy C. Enthalpy D. Activation energy
3	Which of the following is always negative in an exothermic reaction.	A. Delta H B. Activation energy C. Entropy D. Delta S
4	Which gas has highest molar enthalpy of combustion	A. C2H2 B. CH4 C. H2 D. CO
5	Enthalpy change in hydration depends on.	A. Charge B. Ion size C. Solvent nature D. All of these
6	Heat of combustion of H2 is used to determine	A. Calorific value B. Enthalpy C. Ionization energy D. Lattice energy
7	The standard enthalpy of atomization of an element is alwyas.	A. Negative B. Positive C. Zero D. Depend on element
8	Which of the following is used to measure heat changes.	A. Calorimeter B. Voltmeter C. Thermometer D. Barometer
9	AG = 0 indicates	A. Equilibrium B. Spontaneity C. Non Spontaneity D. Irreversibility
10	When a bond is formed	A. Energy is absorbed B. Energy is released C. Delta H is always zero D. No energy change
11	Delta H = q at constant	A. Pressure B. Energy C. Volume D. Temperature
12	Which of the following causes entropy to increases	A. Condensation B. Freezing C. Evaporation D. Crystallization
13	If a chemcial reactio has Delta H = -100 kj/mol, it is	A. Exothermic B. Endothermic C. Isothermal D. Isobaric
14	The calorie content of food, often expressed in Calories (keal), is fundamentally related to which thermodynamic quantity during its metabolism or combustion.	A. Enthealpy change B. Entropy change C. Gibbs free engnergy change D. Specific heat capacity
15	Which stepin the Born-Haber cycle is always endothermic	A. Sublimation B. Electron gain enthalpy C. Hydration D. Lattice formation

16	The enthalpy change for a reaction depends on.	A. Pathway taken from reactants to products B. Presence of a catalyst C. Intitial and final states of the reactants and products D. Rate of the reaction
17	A negative lattice eneryg temperature	A. Bond breaking B. Energy relresed C. Formation of covalent bond D. Spontaneity
18	The enthalpy of sublimation involves.	A. Solid to gas B. Solid to liquid C. Liquid gas D. Gas to liquid
19	If the pH of solution is 11, what is the [OH-]concentratio in the solution.	A. 1 x 10⁻³ M B. 1 x 10⁻¹¹ M C. 1 x 10⁻² M D. 1 x 10^{-14 M}
20	Which of the following affects bond energy.	A. Bond length B. Bond length C. Atomic size D. All of these