Chemical Energetics

Sr	Questions	Answers Choice
1	A process with increase in entropy and enthalpy is spontaneous at.	A. High temperature B. Low temperature C. All temperature D. never spontaneous
2	The enthalpy of solution is	A. Heat evolved /absorbed when 1 mole of solute dissolves B. Solute dissolves C. Always exothermic D. always endothermic
3	Enthalpy change of a process is measured under	A. Constant volume B. Constant pressure C. Constant temperature D. Constant Energy
4	Which of the following affects bond energy.	A. Bond length B. Bond length C. Atomic size D. All of these
5	Which of the following is always negative in an exothermic reaction.	A. Delta H B. Activation energy C. Entropy D. Delta S
6	Which gas has highest molar enthalpy of combustion	A. C2H2 B. CH4 C. H2 D. CO
7	Which of the followng quantitites is NOT typically determined using Hess's Law.	A. Enthalpy change of formation B. Activation energy C. Enthalpy chage f combustion D. Enthalpy chage of reaction
8	When a bond is formed	A. Energy is absorbed B. Energy is released C. Delta H is always zero D. No energy change
9	The enthalpy change when one mole of ionic compund is dissolved in water is	A. Het of hydration B. Heat of solution C. Heat of combustion D. Heat of atomization
10	Born Haber cycle is used to calculate	A. Bond energy B. Heat of hydration C. Lattice energy D. Ionization energy
11	Delta H for an endothermic reaction is	A. Positive B. Negative C. Zero D. Depends on temperature
12	An increase in entropy favors	A. Non spontaneity B. Disorder C. Order D. Equilibrium
13	Standard condition include all except	A. 298 K B. 0 oC C. 1 atm D. 1 M concentration
14	Delta H is negative and Delta S is position then reaction is.	A. Equilibrium B. Always spontaneous C. Temperature depends D. Non sppontaneous
15	Which of the following is a state function.	A. Heat B. Enthalpy C. Work

		D. Path
16	If a chemcial reactio has Delta H = -100 kj/mol, it is	A. Exothermic B. Endothermic C. Isothermal D. Isobaric
17	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}
18	specific heat capacity is amount of heat needed to raise temp of	A. 1 mole B. 1 gram C. 1 kg D. 100 grams
19	Which of the following is an extensive property.	A. Enthalpy B. Temperature C. Density D. Pressure
20	Which factor affects lattice energy	A. Ion size B. Ion charge C. Crystal structure D. None of these