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	What type of reation has a negative Delta H and Delta S?	A. Always spntaneous B. Never spontaneous C. Spontaneous at low temp D. Spontaneous at high temp
3	Heat of combustion of H2 is used to determine	A. Calorific value B. Enthalpy C. Ionization energy D. Lattice energy
4	When a bond is formed	A. Energy is absorbed B. Energy is released C. Delta H is always zero D. No energy change
5	specific heat capacity is amount of heat needed to raise temp of	A. 1 mole B. 1 gram C. 1 kg D. 100 grams
6	Suppose there are 100 molecules of a gas initially in jar A, which is connected to an evacuated jar B, When the stopcock is opened, the positive ways of arrangement of molecules will be	A. 100 B. 1/100 C. 2/100 D. 1/2
7	Delta H = q at constant	A. Pressure B. Energy C. Volume D. Temperature
8	The sign of Delta H during melting is.	A. Negative B. Positive C. Zero D. Can't be predicted
9	A negative lattice eneryg temperature	A. Bond breaking B. Energy relresed C. Formation of covalent bond D. Spontaneity
10	The standard enthalpy of atomization of an element is alwyas.	A. Negative B. Positive C. Zero D. Depend on element
11	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
12	Which factor affects lattice energy	A. Ion size B. Ion charge C. Crystal structure D. None of these
13	Which of the following causes entropy to increases	A. Condensation B. Freezing C. Evaporation D. Crystallization
14	AG = 0 indicates	A. Equilibrium B. Spontaneity C. Non Spontaneity D. Irreversibility
15	If a chemcial reactio has Delta H = -100 kj/mol, it is	A. Exothermic B. Endothermic C. Isothermal D. Isobaric

16	The enthalpy of solution is	A. Heat evolved /absorbed when 1 mole of solute dissolves B. Solute dissolves C. Always exothermic D. always endothermic
17	The change in internal energy is zero is.	A. Isothermal process B. Adiabatic process C. Exothermic process D. Endothermic process
18	The energy required to break a chemical bond is called.	A. Ionization energy B. Bond energy C. Enthalpy D. Activation energy
19	Enthalpy change of a process is measured under	A. Constant volume B. Constant pressure C. Constant temperature D. Constant Energy
20	Enthalpy of neutralization of strong acid an strong base is approximately	A. +57.3 kj/mol B. -57.3 kj /mol C. 0 D. +5.73 kj/mol