

Chemical Energetics

Sr	Questions	Answers Choice
1	Delta H for an endothermic reaction is	A. Positive B. Negative C. Zero D. Depends on temperature
2	Enthalpy change of a process is measured under	A. Constant volume B. Constant pressure C. Constant temperature D. Constant Energy
3	Enthalpy change in hydration depends on.	A. Charge B. Ion size C. Solvent nature D. All of these
4	Delta H = q at constant	A. Pressure B. Energy C. Volume D. Temperature
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	Which of the following has maximum heat capacity	A. Water B. Mercury C. Ethanol D. Iron
7	Heat of combustion of H ₂ is used to determine	A. Calorific value B. Enthalpy C. Ionization energy D. Lattice energy
8	AG = 0 indicates	A. Equilibrium B. Spontaneity C. Non Spontaneity D. Irreversibility
9	The calorie content of food, often expressed in Calories (kcal), is fundamentally related to which thermodynamic quantity during its metabolism or combustion.	A. Enthalpy change B. Entropy change C. Gibbs free energy change D. Specific heat capacity
10	Energy stored in chemical bonds is.	A. Potential energy B. Kinetic energy C. Heat energy D. Radiant energy
11	Which of the following factors would lead to a greater enthalpy change of hydration .	A. A larger ionic radius and a smaller charge B. A smaller ionic radius and a smaller charge C. A larger ionic radius and a larger charge D. A smaller ionic radius and a larger charge
12	Standard condition include all except	A. 298 K B. 0 °C C. 1 atm D. 1 M concentration
13	The sign of Delta H during melting is.	A. Negative B. Positive C. Zero D. Can't be predicted
14	Which of the following is always negative in an exothermic reaction.	A. Delta H B. Activation energy C. Entropy D. Delta S

15	Which of the following affects bond energy.	A. Bond length B. Bond length C. Atomic size D. All of these
16	Which of the following is used to measure heat changes.	A. Calorimeter B. Voltmeter C. Thermometer D. Barometer
17	The enthalpy change when one mole of ionic compound is dissolved in water is	A. Heat of hydration B. Heat of solution C. Heat of combustion D. Heat of atomization
18	The system that exchanges heat but not mass	A. Closed B. Rigid C. Open D. Isolated
19	Which law states that enthalpy change is independent of the path taken.	A. Hess's law B. Boyle's law C. Avogadro's law D. Dalton's law
20	Which step in the Born-Haber cycle is always endothermic	A. Sublimation B. Electron gain enthalpy C. Hydration D. Lattice formation