

MDCAT Chemistry Chapter 7 Chemical Equilibrium Online Test

Sr	Questions	Answers Choice
1	Enthalpy of formation of one mole of ionic compound from gaseous ions under standard condition is called	A. Gibbs energy B. Gibbs energy C. Bond energy D. Lattice energy
2	If internal energy of the system is increased	A. Change in state of the system may occur B. Temperature of the system may rise C. Chemical reaction may take place D. All of these
3	The value of ΔV being very small. The term $P\Delta V$ can be neglected for process involving	A. Liquid and gas B. Solids and gases C. Liquid and solid D. None of these
4	A state function which describes together the internal energy and product of pressure and volume is called	A. Enthalpy B. internal energy C. Work D. Kinetic energy
5	Enthalpy of a system can be calculated by which of following relationship	A. $q = \Delta E$ B. $q = m \times S \times \Delta T$ C. $q = pv$ D. $q = m \times v \times \Delta T$
6	Hess's law is analogous to	A. Law of heat summation B. law of increasing entropy C. Law of heat exchange D. 1st law of thermodynamics
7	The enthalpy of formation of a compound is	A. Positive B. Either positive or negative C. Negative D. None
8	What is not correct about ΔH_f	A. It is always negative B. Its value gives an idea about the relative stability of reactants and the products. C. Its value can be greater or less than zero D. Value depends upon nature of bonds
9	Which of the following enthalpy change always have a negative value	A. ΔH_f B. ΔH_{sol} C. ΔH_c D. ΔH_{at}
10	Change in enthalpy (ΔH) of a system can be calculated by	A. $\Delta H = \Delta E - PV$ B. $\Delta H = \Delta E + q$ C. $\Delta H = \Delta E - q$ D. $\Delta H = \Delta E + P\Delta V$
11	Enthalpy of neutralization (ΔH^n) per mole of $H_2SO_4 / Ba(OH)_2$ is	A. +57.4 kJmol ⁻¹ B. -114.8 kJmol ⁻¹ C. -57.4 kJmol ⁻¹ D. -57.4 kJmol ⁻¹
12	If a reaction involves only solids and liquids, which of the following is true?	A. $\Delta H = \Delta E$ B. $\Delta H = \Delta E$ C. $\Delta H > \Delta E$ D. $\Delta H = \Delta E + nRT$
13	For an endothermic reaction, enthalpy of reactants	A. Is smaller than that of the products B. Is greater than that of the products C. Must be greater or smaller than that of the products D. Is equal to that of the products
14	The net heat change in a chemical reaction is the same whether it is brought about in two or	A. Henry's law B. Hess's law

	more different ways in one or several steps.it is known as	C. joule's law D. Law of conservation of energy
15	The enthalpy change for the reaction $C_2H_2 + 5/2 O_2 \rightarrow 2CO_2 + H_2O$ is known as enthalpy of	A. Fomation of CO2 B. Fusion ofC2H4 C. Combustion of C2H4 D. Vaporization of C2H2
16	Born-Haber cycle is an application of	A. Hess's law B. 1" law of thermodynamics C. Avogadro's law D. 1law of thermochemistry
17	How much heat is absorbed by 100 g of water when its temperature decreases from 25°C to 5°C? (heat capacity is 4.2 J/gK)	A. 84,000J B. 2000/4.2J C. -2000/4.2j D. -8400J
18	One of the best applications of Hess's law to calculate the lattice energy of ionic compound is	A. Measurement of enthalpy change in a calorimeter B. Studying of first law of thermodynamics C. Measurement of a heat of formation of a compound D. Born-Haber cycle
19	Whenever a reaction is endothermic, then it means that	A. Heat is transferred system to the surrounding B. Heat is transferred from surrounding to the system C. Heat content of the products is less than that of reactants D. Heat content of the reactants is greater than the products
20	In order to determine ΔH (latt) of ionic compound which is correct relationship	A. $\Delta H \text{ latt.} = \Delta H_f - \Delta H_x$ B. $\Delta H \text{ latt.} = \Delta H_a + \Delta H_v$ C. $\Delta H \text{ latt.} = \Delta H_f + \Delta H_x$ D. $\Delta H \text{ latt.} = \Delta H_f - \Delta H \text{ sol.}$