

MDCAT Chemistry Chapter 7 Chemical Equilibrium Online Test

Sr	Questions	Answers Choice
1	What is correct about heat of combustion	A. It is applicable to gaseous substances only B. It is always negative C. It is always positive D. It is positive in some cases while negative in other
2	The enthalpies of all elements in their standard states are	A. Unity B. always +ve C. always -ve D. zero
3	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
4	Enthalpy of formation of one mole of ionic compound form gaseous ion under standard condition is called	A. Gibb's energy B. Gibb's energy C. Bond energy D. Lattice energy
5	Born-Haber cycle is an application of	A. Hess's law B. 1 st law of thermodynamics C. Avogadro's law D. 1 st law of thermochemistry
6	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
7	Decomposition of H ₂ O is	A. Endothermic reaction B. Nuclear reaction C. Exothermic reaction D. Zero nuclear reaction
8	Enthalpy of neutralization ($\Delta H^\circ n$) per mole of H ₂ SO 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
9	Enthalpy of neutralization of strong acids and strong bases have same values because	A. Neutralization leads to the formation of salt and water B. Acids always give rise to H ⁺ and bases always furnish OH ⁻ C. Strong acids and bases are ionic substances D. The net change involves the combination of H ⁺ and OH ⁻ ions to form water
10	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. $\Delta H_{\text{latt.}} = \Delta H_f - \Delta H_{\text{sol.}}$
11	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. $\Delta H = \Delta E + nRT$
12	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. $\Delta H = \Delta E + P\Delta V$
13	Calorie is equivalent to	A. 0.4184J B. 4.184J C. 418.4J D. 40.18J
14	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
15	One kilo calorie is equal to	A. 4.184J B. 1000J C. 4184J D. 1kJ
16	The net heat change in a chemical reaction is the same whether it is brought about in two or more different ways in one or several steps. it is known as	A. Henry's law B. Hess's law C. joule's law D. Law of conservation of energy
17	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
18	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
19	One Joule is equivalent to	A. 4.184 cal. B. 0.4184cal. C. 1/2 cal. D. 1/4.184 cal
20	During an exothermic or endothermic reaction which one of the following formula is used to calculate the amount of heat evolved or absorbed	A. $\Delta H = \Delta E + PV$ B. $\Delta E = q + w$ C. $\Delta p = \Delta H$ D. $q = m \times s \times \Delta T$