

MDCAT Chemistry Chapter 7 Chemical Equilibrium Online Test

Sr	Questions	Answers Choice
1	Decomposition of H ₂ O is	A. Endothermic reaction B. Nuclear reaction C. Exothermic reaction D. Zero nuclear reaction
2	The change in enthalpy of a system when one mole of the substance is completely burnt in excess of air or oxygen is called	A. Heat of reaction B. Heat of formation C. Heat of atomization D. Heat of combustion
3	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
4	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. $\Delta H = \Delta E + nRT$
5	The exothermic process is	A. Evaporation B. Sublimation C. Respiration D. Boiling
6	The enthalpy of formation of a compound is	A. Positive B. Either positive or negative C. Negative D. None
7	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. $\Delta H = \Delta E + P\Delta V$
8	A system absorbs 100 kJ heat and performs 50 kJ work on the surroundings. The increase in internal energy of the system is	A. 50kJ B. 100 kJ C. 150kJ D. 5000 kJ
9	Enthalpy of a reaction can be measured by	A. Glass calorimeter B. Barometer C. Manometer D. Thermometer
10	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
11	Total heat content of a system is called	A. Internal energy B. Entropy C. Enthalpy D. All of these
12	$\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$. Enthalpy change in the above reaction is called	A. Enthalpy of reaction B. Enthalpy of Neutralisation C. Enthalpy of formation D. Enthalpy of combustion
13	Enthalpy of neutralization (ΔH°_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
14	Neutralization of acid-base is	A. Spontaneous B. Exothermic C. Non spontaneous D. Both "a" and "c"
		A. Unity

15	The enthalpies of all elements in their standard states are	B. always +ve C. always -ve D. zero
16	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
17	One Joule is equivalent to	A. 4.184 cal. B. 0.4184cal. C. 1/2 cal. D. 1/4.184 cal
18	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. $\Delta H \text{ latt.} = \Delta H_f - \Delta H \text{ sol.}$
19	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
20	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. $q = m \times v \times \Delta T$