

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	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
3	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
4	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
5	ΔH° represent the enthalpy change at	A. 0°C and 1 atm pressure B. 25°C and 1 atm C. 0K and 1 atm pressure D. 25°C and 2 atm pressure
6	The values of ΔH for the process $I(g) + e^{-1} \rightarrow I^{-1}(g)$ is:	A. >0 B. <0 C. 0 D. None
7	Neutralization of acid-base is	A. Spontaneous B. Exothermic C. Non spontaneous D. Both "a" and "c"
8	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
9	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. $\Delta H = \Delta E + P\Delta V$
10	Total heat content of a system is called	A. Internal energy B. Entropy C. Enthalpy D. All of these
11	The enthalpies of all elements in their standard states are	A. Unity B. always +ve C. always -ve D. zero
12	The exothermic process is	A. Evaporation B. Sublimation C. Respiration D. Boiling
13	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
		A. Temperature of the reactants

14	The heat of reaction depends upon	B. Physical states of the reactants and the products C. Both A) and B) D. Path of the reaction and the temperature
15	If an endothermic reaction is allowed to take place very rapidly in air, the temperature of the surrounding air will	A. Remains constant B. Increase C. Decrease D. Either increase or decrease E. One Joule is equivalent to
16	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. $\Delta H = \Delta E + nRT$
17	According to Hess's law, the enthalpy change for a reaction	A. Depends on path B. Independent of the path C. The sum of ΔE and ΔH D. None of these
18	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
19	The measurement of enthalpy change at standard conditions means that we should manage the measurement at	A. 24°C at 1 atm B. 25°C at 1 atm C. 0°C at 1 atm D. 100°C 1 atm
20	The enthalpy of formation of a compound is	A. Positive B. Either positive or negative C. Negative D. None