

MDCAT Chemistry Chapter 7 Reaction Kinetics Online Test

Sr	Questions	Answers Choice
1	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
2	The enthalpy change ΔH of a process is given by the relation	A. $\Delta H = \Delta E + P\Delta V$ B. $\Delta H = \Delta E + W$ C. $\Delta H = \Delta E - \Delta nRT$ D. $\Delta E = \Delta H + P\Delta V$
3	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
4	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
5	Neutralization of acid-base is	A. Spontaneous B. Exothermic C. Non spontaneous D. Both "a" and "c"
6	The change in enthalpy when one mole of a substance is dissolved in a specified quantity of solvent at a given temperature is called	A. Heat of reaction B. Heat of solvation C. Heat of combustion D. Heat of solvent
7	Which of the following enthalpy change always have a negative value	A. ΔH_f B. ΔH_{sol} C. ΔH_c D. ΔH_{at}
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	By convention, the standard heat of formation of all elements is assumed to be	A. Zero B. positive C. Negative D. Infinity
10	One kilo calorie is equal to	A. 4.184J B. 1000J C. 4184J D. 1kJ
11	$\Delta H = \Delta E$ is true for which of the following reaction	A. $K + H_2O \rightarrow KOH + H_2$ B. $N_2 + 3H_2 \rightarrow 2NH_3$ C. $AlCl_3 + 3NaOH \rightarrow Al(OH)_3 + 3NaCl$ D. $4Na + O_2 \rightarrow 2Na_2O$
12	Which of the following processes has always. $\Delta H = -ve$	A. Formation of compound B. Dilution of a solution C. Dissolution of ionic compound D. Combustion
13	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. $q = m \times v \times \Delta T$
14	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

15	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
16	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
17	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
18	In order to determine ΔH (latt) of ionic compound which is correct relationship	A. $\Delta H_{latt.} = \Delta H_f - \Delta H_x$ B. $\Delta H_{latt.} = \Delta H_a + \Delta H_v$ C. $\Delta H_{latt.} = \Delta H_f + \Delta H_x$ D. $\Delta H_{latt.} = \Delta H_f - \Delta H_{sol.}$
19	Enthalpy of a reaction can be measured by	A. Glass calorimeter B. Barometer C. Manometer D. Thermometer
20	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