MDCAT Chemistry Chapter 7 Reaction Kinetics Online Test

Sr	Questions	Answers Choice
1	Decomposition of H2O is	A. Endothermic reaction B. Nuclear reaction C. Exothermic reaction D. Zero nuclear reaction
2	NaOH+HCl- NaCl+ H2O. Enthalpy change in the above reaction is called	A. Enthalpy of reaction B. Enthalpy of Neutralisation C. Enthalpy of formation D. Enthalpy of combustion
3	Choose from the followings the correct statement about Born Haber cycle	A. Born Haber cycle is different from Hess's law B. The energy changes in a cyclic process is not zero C. The lattice energy of crystalline substances can be calculated easily D. None
4	One kilo calorie is equal to	A. 4.184J B. 1000J C. 4184J D. 1kJ
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	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. 0C° at 1 atm D. 100C° 1 atm
7	Which of the following processes has always. ΔH=-ve	A. Formation of compound B. Dilution of a solution C. Dissolution of ionic compound D. Combustion
8	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
9	In order to determine ΔH (latt) of ionic compound which is correct relationship	A. ΔH latt. $= \Delta Hf - \Delta Hx$ B. ΔH latt. $= \Delta Ha + \Delta Hv$ C. ΔH latt. $= \Delta Hf + \Delta Hx$ D. ΔH latt. $= \Delta Hf - \Delta H$ sol.
10	What is not correct about ΔHF	A. It is always negative B. Ìts 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
11	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
12	The heat of reaction depends upon	A. Temperature of the reactants B. Physical states of the reactants and the products C. Both A) and B) D. Path of the reaction and the temperature
13	A state function which describes together the internal energy and product of pressure and	A. Enthalpy B. internal energy C. Work

	volume is called	C. Work D. Kinetic energy
14	Enthalpy of neutralization ($\Delta H°n$) 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
15	Which of the following has positive value of enthalpy	A. Neutralisation B. Atomization C. combustion D. All of the above
16	Calorie is equivalent to	A. 0.4184J B. 4.184J C. 418.4J D. 40.18J
17	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. $\Delta H = \Delta E + P\Delta V$
18	Hess's law is analogous to	A. Law of heat summation B. law of increasing entropy C. Law of heat exchange D. Ist law of thermodynamics
19	Neutralization of acid-base is	A. Spontaneous B. Exothermic C. Non spontaneous D. Both "a" and "c
20	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
21	The values of ΔH for the process I(g)+e-1---------> I-1(g) is:	A. >0 B. <0 C. 0 D. None
22	One Joule is equivalent to	A. 4.184 cal. B. 0.4184cal. C. 1/2 cal. D. 1/4.184 cal
23	Enthalpy of a reaction can be measured by	A. Glass calorimeter B. Barometer C. Manometer D. Thermometer
24	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
25	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. ΔH>ΔE D. $AH = AE + nRT$
26	$\Delta H°$ represent the enthalpy change at	A. 0°C and 1 atm pressure B. 25°Cand 1atm C. 0K and I atm pressure D. 25°C and 2 atm pressure
27	The enthalpy change for the reaction $C_2H_2 + 5/2 O_2$ --------> $2CO_2 + H_2O$ is known as enthalpy of	A. Fomation of CO_2 B. Fusion ofC_2H_4 C. Combustion of C_2H_4 D. Vaporization of C_2H_2
28	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
29	Born-Haber cycle is an application of	A. Hess's law B. 1" law of thermodynamics C. Avogadro's law D. 1law of thermochemistry
30	Most of the reactions which give stable products are	A. Endothermic B. Exothermic C. Isothermal D. Non of these

31	ΔH=ΔE is true for which of the following reaction	A. K+H2O----->KOH+H2 B. N2+3H2------>2NH3 C. AlCl3+3NaOH--->Al(OH)3+3 NaCl D. 4Na + O2----->2Na2O
32	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
33	Which of the following enthalpy change always have a negative value	A. ΔHf B. ΔH sol C. ΔHc D. ΔHat
34	By convention, the standard heat of formation of all elements is assumed to be	A. Zero B. positive C. Negative D. Infinity
35	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
36	The enthalpy of formation of a compound is	A. Positive B. Either positive or negative C. Negative D. None
37	The exothermic process is	A. Evaporation B. Sublimation C. Respiration D. Boiling
38	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
39	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
40	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
41	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
42	The enthalpy change AH of a process is given by the relation	A. ΔH =ΔE + PΔV B. ΔH=ΔE +W C. ΔH =ΔE-ΔnRT D. ΔE =ΔH + PΔV
43	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
44	During an exothermic or endothermic reaction which one of the following formula is used to calculate the amount of heat evolved or absorbed	A. ΔH = ΔE+PV B. ΔE= q+w C. Δp =ΔH D. q = m x s x ΔT
45	The lattice energy of NaCl is	A. 787 j/ mole B. 790 kj/mol C. 780 kJ/ mol D. -787 kl / mole
		A. Change in state of the system may occur

46	If internal energy of the system is increased	B. Temperature of the system may rise C. Chemical reaction may take place D. All of these
47	Total heat content of a system is called	A. Internal energy B. Entropy C. Enthalpy D. All of these
48	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
49	The enthalpies of all elements in their standard states are	A. Unity B. always +ve C. always -ve D. zero
50	The value of ΔV being very small. The term PΔV can be neglected for process involving	A. Liquid and gas B. Solids and gases C. Liquid and solid D. None of these