MDCAT Chemistry Chapter 7 Reaction Kinetics Online Test

Sr	Questions	Answers Choice
1	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
2	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
3	Which of the following has positive value of enthalpy	A. Neutralisation B. Atomization C. combustion D. All of the above
4	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
5	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
6	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
7	If a reaction involves only solids and liquids, which of the following is true?	A. ΔH = ΔE B. ΔH =ΔE C. ΔH>ΔE D. AH =AE +nRT
8	Calorie is equivalent to	A. 0.4184J B. 4.184J C. 418.4J D. 40.18J
9	The values of ΔH for the process I(g)+e-1---------> I-1(g) is:	A. >0 B. <0 C. 0 D. None
10	The enthalpy of formation of a compound is	A. Positive B. Either positive or negative C. Negative D. None
11	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
12	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
13	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
14	One Joule is equivalent to	A. 4.184 cal. B. 0.4184cal. C. 1/2 cal. D. 1/4.184 cal
15	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
16	The exothermic process is	A. Evaporation B. Sublimation C. Respiration D. Boiling
17	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. $q = m \times s \times \Delta T$
18	Most of the reactions which give stable products are	A. Endothermic B. Exothermic C. Isothermal D. Non of these
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. 0C° at 1 atm D. 100C° 1 atm
20	Total heat content of a system is called	A. Internal energy B. Entropy C. Enthalpy D. All of these
21	The enthalpies of all elements in their standard states are	A. Unity B. always +ve C. always -ve D. zero
22	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
23	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
24	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
25	The lattice energy of NaCl is	A. 787 j/ mole B. 790 kj/mol C. 780 kJ/ mol D. -787 kl / mole
26	Decomposition of H_2O is	A. Endothermic reaction B. Nuclear reaction C. Exothermic reaction D. Zero nuclear reaction
27	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
28	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
29	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
		A. $\Delta H = \Delta E - PV$

30	Change in enthalpy (ΔH) of a system can be calculated by	A. ΔH=ΔE - PV B. ΔH =ΔE +q C. ΔH = ΔE - q D. ΔH = ΔE + PΔV
31	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
32	Enthalpy of a reaction can be measured by	A. Glass calorimeter B. Barometer C. Manometer D. Thermometer
33	In order to determine ΔH (latt) of ionic compound which is correct relationship	A. ΔH latt. = ΔHf - ΔHx B. ΔH latt. = ΔHa + ΔHv C. ΔH latt. = ΔHf + ΔHx D. ΔH latt. = ΔHf - ΔH sol.
34	Enthalpy of neutralization (ΔH°n) per mole of H2SO4/ Ba(OH)2 is	A. +57.4 kJmol-1 B. -114.8 kJmol-1 C. -57.4 kJmol-1 D. -57.4 kJmol-1
35	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
36	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
37	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
38	Enthalpy of a system can be calculated by which of following relationship	A. q=ΔE B. q=m×S×ΔT C. q=pv D. q=m×v×ΔT
39	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
40	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
41	One kilo calorie is equal to	A. 4.184J B. 1000J C. 4184J D. 1kJ
42	By convention, the standard heat of formation of all elements is assumed to be	A. Zero B. positive C. Negative D. Infinity
43	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
44	Which of the following enthalpy change always have a negative value	A. ΔHf B. ΔH sol C. ΔHc D. ΔHat
45	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

46	Neutralization of acid-base is	A. Spontaneous B. Exothermic C. Non spontaneous D. Both "a" and "c
47	Born-Haber cycle is an application of	A. Hess's law B. 1" law of thermodynamics C. Avogadro's law D. 1law of thermochemistry
48	ΔH° 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
49	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
50	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