ECAT Chemistry Chapter 7 Thermo Chemistry Online Test

Sr	Questions	Answers Choice
1	If an endothermic reaction is allowed to take place very rapidly in the air, the temperature of the surrounding air	A. remains constant B. increases C. decreases D. remain unchanged
2	Calorie is equivalent to	A. 0.4184 J B. 41.84 J C. 4.184 J D. 418.4 J
3	The change in heat energy of a chemical reaction at constant temperature and pressure is called	A. entahlpy change B. heat of sublimation C. bond energy D. internal energy change
4	Which of the following statements is contrary to the first law of themodynamics	A. Energy can neither be created nor destroyed B. One form of energy can be transferred into an equivalent amount of other kinds of energy C. In an adiabatic process, the work done is independent of its path D. Continuous production of mechanical work without supplying and equivalent amount of heat is possible
5	The net heat in a chemical reaction is 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. Joule's princile C. Hess's law D. law of conservation of energy
6	The study of heat changes accompanying a chemical reaction is known as	A. Thermochemistry B. Biochemistry C. Physical chemistry D. Analytical chemistry
7	If an endothermic reaction is allowed to take place very rapidly in air, the temperature of the surrounding air	A. Remains constant B. Decreases C. Increases D. Fluctuates rapidly
8	In endothermic reactions, the heat contents of the surrounding air	A. Remains constant B. Decreases C. Increases D. Fluctuates rapidly
9	The majority of reactions which give stable products are	A. Exothermic B. Isothermal C. Endothermic D. Both a and c
10	It is noticed that energy in the form of heat is either evolved or absorbed as a result of a	A. Physical change B. Chemical change C. Biological change D. All of above
11	In a chemical change, the energy in the form of heat will either be evolved or absorbed and this is called	A. Endothermic B. Heat of products C. Exothermic reaction D. Heat of reaction
12	The energy units in which heat changes usually expressed in SI-system are	A. Joule B. Calorie C. Kilo Joule D. Both a and c
13	The subject matter of first law of thermochemistry is based on	A. First law of Thermochemistry B. First law of Thermodynamics C. Second law of Thermochemistry D. Second law of Thermodynamics
14	A process which takes place on its own without any outside assistance and moves from a non-equilibrium state towards an equilibrium state is termed as	A. Spontaneous process B. Natural process C. Non-spontaneous process D. Both a and b
		A. Unidirectional

15	Which one of the following is not related to spontaneous process	B. Real C. Irreversible D. Artificial
16	Neutralization of a strong acid with a strong base is	A. Natural acid base reaction B. Artificial acid base reaction C. Spontaneous acid base reaction D. both a and c
17	When a piece of zinc is added to the copper sulphate solution, _____ colour of solution disappear	A. Pink B. Purple C. Blue D. Brown
18	The reaction of Zinc with copper sulphate solution is an example of	A. Oxidation reduction reaction B. Spontaneous reaction C. Spontaneous redox reaction D. Non-spontaneous reaction
19	A reaction will also be called a spontaneous if	A. It does not need energy to start with B. It needs energy to carry the whole process C. It needs energy at the end of reaction D. It needs energy to start with
20	Burning of coal and hydrocarbon in air are examples of	A. Non-spontaneous reaction B. Spontaneous reaction C. Natural reaction D. Both b and c
21	Some non-spontaneous processes can be made to take place by supplying energy to the system from	A. Internal source B. Any source C. External source D. All of above
22	By state, we mean the	A. Reaction of system B. Scope of a system C. Condition of a system D. None of above
23	When no work is done by the system	A. The volume of system decreases B. The volume of system increases C. The volume of system does not change D. None of above
24	When a system absorbs energy, the sign of delta E is	A. Neither positive nor negative B. Negative C. Positive D. None of above
25	Work is a	A. State function B. Only function C. Non-state function D. State
26	The real or imaginary surface separating the system from the surrounding is called	A. Imaginary line B. Boundary C. Real line D. All of above
27	One mole of oxygen confined in a cylinder fitted with a piston is an example of	A. Surrounding B. System and surrounding C. System D. State function
28	Reaction between Zn and $CuSO_4$can be called a system under	A. Surrounding B. Observation C. system D. None of above
29	By comparing both initial and final states of the system, we can describe the change taking place in the	A. Surrounding B. Both a and c C. System D. None of above
30	A state function is a	A. Microscopic property B. Macroscopic C. Unique property D. Both a and c
31	If an endothermic reaction is allowed to take place very rapidly in the air, the temperature of the surrounding air:	A. Remains constant. B. Increase. C. Decreases. D. Remain unchanged.
32	In endothermic reactions, the heat content of the:	A. Products is more than that of reactants. B. Reactants is more than than to products. C. Both (a) and (b). D. Reactants and products are equal.

33	Calorie is equivalent to :	A. 0.4184 J B. 4184 J C. 4.184 J D. 418.4 J
34	The change in heat energy of a chemical reaction at constant temperature and pressure is called :	A. Enthalpy change. B. Seat of sublimation. C. Bind energy. D. Internal energy change.
35	Which of the following statements is contrary to the first law of thermodynamics?	A. Energy can neither be created no destroyed. B. One form of energy can be transferred into an equivalent amount of the kinds of energy. C. In a adiabatic process, the work done is independent of its path. D. Continuous production of mechanical work without supplying an equivalent amount of heat is possible.
36	For a given process, the heat changes at constant volume (q_v) are related to other as:	A. q_p= q_v<o:p></o:p> B. q_p<q_v<o:p></o:p> C. q_p>q_v<o:p></o:p> D. q_p=q_{v/2}<o:p></o:p>
37	For the reaction : NaOH + HCl----------> NaCl + H_2O the change in enthalpy is called:	A. Heat of reaction. B. Heat of formation. C. Heat of neutralization. D. Heat of combustion.
38	The net heat change in a chemical reaction is 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. Joule's principle. C. Hess's law. D. Law of conservation of energy.
39	Enthalpy of neutralization of all the strong acids and strong bases has the same value because:	A. Neutralization leads to the formation of salt and water. B. Strong acids and bases are ionic substances. C. Acids always give rise to H⁺ions and bases always furnish OH⁻ions. D. The net chemical change involve the combination of H⁺ and OH⁻ions to form water.
40	The study of heat changes accompanying a chemical reaction is known as :	A. Thermochemistry. B. Biochemistry. C. Physical chemistry. D. Analytical chemistry.
41	If an endothermic reaction is allowed to take place very rapidly in air, the temperature of the surrounding air :	A. Remains constant. B. Decreases. C. Increases. D. Fluctuates rapidly.
42	In endothermic reactions, the heat contents of the:	A. Products equal to the reactants. B. Reactants more than that of products. C. Products more than that of reactants D. Both (b) and (c)
43	The majority of reactions which give stable products are:	A. Exothermic. B. Isothermal. C. Endothermic. D. Both (b) and (c).
44	It is noticed that energy in the from of heat is either evolved or absorbed as a result of a:	A. Physical change. B. Chemical change. C. Biological change. D. All of above.
45	In a chemical change, the energy in the from of heat will either be evolved or absorbed and this is called:	A. Endothermic. B. Heat of products. C. Exothermic reaction. D. Heat of reaction.
46	The energy units in which heat changes usually expressed in SI-system are:	A. Joule. B. Calorie. C. Kilo Joule. D. Both (a) and (c)
47	The subject matter of first law of thermochemistry is based on:	A. First law of Themochemistry. B. First law of Thermodynamics. C. Second law of Themochemistry. D. Second law of Thermodynamics.

48	A process which takes place on its own without any outside assistance and moves from a non-equilibrium stat towards an equilibrium stat is termed as:	A. Spontaneous process. B. Natural process. C. Non-Spontaneous process. D. Both (a) and (b).
49	Which one of the following is not related to spontaneous process.	A. <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">Unidirectional.^{<o:p></o:p>} B. Real. C. <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">Irreversible.<o:p></o:p> D. Artificial.
50	Neutralization of a strong acid with a strong abase is:	A. Natural acid base reaction. B. Artificial acid base reaction. C. Spontaneous acid base reaction. D. Both (a) and (c).
51	When a piece of zinc is added to the copper sulfate solution,_____ color of solution disappear.	A. Pink. B. Purple. C. Blue. D. Brown.
52	The reaction of zinc with the copper sulfate solution is an example of.	A. Oxidation reduction reaction. B. Spontaneous reaction. C. Spontaneous redox reaction. D. Non-spontaneous reaction.
53	A reaction will also be called a spontaneous if :	A. It does no need energy to start with. B. It needs energy to carry the whole process. C. It needs energy at the end of reaction. D. It needs energy to stat with.
54	Burning of coal and hydrocarbon in air are examples of :	A. Non-spontaneous reaction. B. Spontaneous reaction. C. Natural reaction D. Both (a) and (C)
55	Some Non-spontaneous process can be made to take place by supplying energy to the system from :	A. Internal source. B. Any source. C. External source. D. All of above.