

ECAT Chemistry Chapter 7 Thermo Chemistry Online Test

Sr	Questions	Answers Choice
1	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.
2	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)
3	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.
4	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.
5	When a piece of zinc is added to the copper sulfate solution, _____ color of solution disappear.	A. Pink. B. Purple. C. Blue. D. Brown.
6	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).
7	Which one of the following is not related to spontaneous process.	A. <p class="MsoNormal">Unidirectional. <sup><o:p></o:p></sup></p> B. Real. C. <p class="MsoNormal">Irreversible. <o:p></o:p></p> D. Artificial.</p></p>
8	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).
9	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.
10	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)
11	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.
12	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.
13	The majority of reactions which give stable products are:	A. Exothermic. B. Isothermal. C. Endothermic.

		D. Both (b) and (c).
14	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)
15	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.
16	The study of heat changes accompanying a chemical reaction is known as :	A. Thermochemistry. B. Biochemistry. C. Physical chemistry. D. Analytical chemistry.
17	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.
18	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.
19	For the reaction : $NaOH + HCl \rightarrow NaCl + H_2O$ the change in enthalpy is called:	A. Heat of reaction. B. Heat of formation. C. Heat of neutralization. D. Heat of combustion.
20	For a given process, the heat changes at constant volume (q_v) are related to other as:	A. $q_p = q_v + \Delta nRT$ B. $q_p = q_v$ C. $q_p = q_v + \Delta nRT$ D. $q_p = q_v + \Delta nRT$
21	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.
22	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.
23	Calorie is equivalent to :	A. 0.4184 J B. 4184 J C. 4.184 J D. 418.4 J
24	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.
25	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.
26	A state function is a	A. Microscopic property B. Macroscopic C. Unique property D. Both a and c
27	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
28	Reaction between Zn and $CuSO_4$ can be called a system under	A. Surrounding B. Observation C. system

C. System
D. None of above

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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

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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