ECAT Chemistry Chapter 11 Reaction Kinetics

Sr	Questions	Answers Choice
1	Which statement about Arrhenius equation is incorrect	A. Factor 'A' called Arrhenius constant depends upon collision frequency of reactants B. Rate of reaction increase by increasing temperature C. Rate constant k is increased D. Activation energy Ea is decreased by rise in temperature
2	The value of activation energy Ea of a reaction can be determined from the value of slope of the straight line obtained by plotting a graph between 1/T and log k. the value of Ea is equal to	A. Slope B. 1/Slope C. Slope x R D. Slope x 2.303 R
3	Question Image	A. 2 B. 3 C. 4 D. 9
4	In the expression rate = K $[A]^a[B]^b$K is	A. The order of reaction B. The speed of reaction C. The specific rate constant D. The overall order of reaction
5	The catalytic activity of Pt is much higher when	A. It is mixed with asbestos B. It is mixed with Pd C. It is mixed with arsenic D. In is made colloidal platinum
6	A catalyst is a substance which increase the rate of a chemical reaction, but remains unchanged at the end of reaction, nut remains unchanged at the end of reaction, because	A. It increases the temperature B. It increase the surface area C. It increases the rate constant D. It decrease the energy energy of activation
7	Which of the following reactions occur at moderate rate :	A. Rusting of iron B. Chemical weathering of stone work of buildings by acidic gases in atmosphere. C. Hydrolysis of an ester D. Fermentation of sugars
8	The reaction rate is expressed in the units of	A. Mol dm⁻³S⁻ B. Mol dm⁻³ C. Mol dm⁻³N⁻ D. dm⁻³S⁻
9	Refrectrometric method is used when	A. Reactions involving absorption of I.R. or U. V B. Reactions involving change of refractive index C. Reactions involving ions D. Change of optical activity
10	The actual number of atoms or molecules taking part in rate determining step is	A. Rate of reaction B. Velocity of reaction C. Order of reaction D. Molecularly
11	The unit rate of constan K is$mole^{-1}$ $dm^3S^{-1}$for a chemical reaction, the order of reaction is :	A. 3 B. 2 C. 1 D. 0
12	Question Image	A. Rate is independent of concentration of water since it is in excess B. Rate is independent of concentration of ester since it is in exces C. Rate depends upon the concentration of acid catalyst added D. Rate = k[CH₃COOC₂H₅]^{1/2}[H₂O]^{1/2}
13	If the rate of reaction is independent of the concentration of the reactant, the reaction is of	A. Zero order B. First order C. Second order D. Third order
14	In the rate equation when the concentration of reactants are unity, then	A. Instantaneous rate B. Average rate

	rate is equal to	C. Active mass of products D. Specific rate constant
15	The rate of reaction is denoted by	A. dc/dp B. dc/ac C. dc/dT D. dc/dt
16	With the progressive of the reaction the slope of the curve between concentration of product and time	A. Gradually becomes more steep B. Gradually becomes less steep C. No change occurs in slope D. None of these occurs
17	The effective activity of a metal catalyst is increased if it is in	A. Solid form B. Liquid state C. Gaseous state D. Finely divided form
18	Question Image	A. Initial concentration of reaction B. Initial concentration of products C. Final concentration of products D. Order of the reaction
19	Which statement is true about order of reaction :	A. Order of reaction can only be determined by an experiment. B. Order of reaction can be determined from a balance equation only. C. Order of reaction increase by increasing temperature. D. Order of reaction must be in whole number and not in fraction.
20	Rate law of an equation is obtained :	A. From a balance equation. B. Can be calculated theoretically as well as determined experimentally. C. It is only calculated theoretically. D. Experimentally.