

PPSC Chemistry Part II Organic Chemistry Online Test

Sr	Questions	Answers Choice
1	When the concentration of reactant molecules is increased the rate of reaction increases. The best explanation is As the reactant concentration increases.	A. The average kinetic energy of molecules increases. B. The frequency of molecular collisions increases C. The rate constant increase D. The activation energy increases
2	Which statement is false.	A. If a reaction is thermodynamically spontaneous it may occur rapidly B. If a reaction is thermodynamically spontaneous it may occur slowly. C. Activation energy is a kinetic quantity rather than a thermodynamic quantity. D. If a reaction is thermodynamically spontaneous, it must have a low activation energy.
3	A catalyst	A. Actually participates in the reaction B. Changes the equilibrium concentration of the products C. Does not affect a reaction energy path D. Always decreases the rate for a reaction
4	What is the activation energy of a reaction whose rate constant increases by a factor of 100 upon increasing the temperature from 300 K to 360 K.	A. 27 B. 35 C. 42 D. 69
5	Suppose the activation energy of a certain reaction is 250 kJ/mol, If the rate constant at $T_1 = 300$ K is k_1 and the rate constant at $T_2 = 320$ K is k_2 , then the reaction is _____ times faster at 320 K than at 300 K	A. 3×10^{29} B. 0.067 C. 525 D. 15.0
6	A correct reaction mechanism for a given reaction usually is.	A. The same as the balanced chemical equation B. Obvious if its heat of reaction is known C. Sometimes difficult to prove D. Obvious if the activation energy is known
7	If the activation energy in the forward direction of an elementary step is 52 kJ and the activation energy in the reverse direction is 74 kJ. What is the energy of reaction ΔE for this step	A. 22 KJ B. -22 kJ C. 52 kJ D. -52 kJ
8	If reaction A has an activation energy of 250 kJ and reaction activation energy of 100 kJ, which of the following statements must be correct.	A. If reaction A is exothermic and reaction B is endothermic then reaction A is favored kinetically B. At the same temperature the rate of reaction B is greater than the rate of reaction A C. The energy of reaction A must be greater than the energy of reaction B. D. The energy of reaction B must be greater than the energy of reaction A
9	The half life for a first order reactions 32 s, What was the original concentration if after 2.0 minutes, the reactant concentration is 0.062 M.	A. 0.84 M B. 0.069 M C. 0.091 M D. 0.075 M
10	The decomposition of dimethyl ether at 504 °C is first order with a half -life of 1570 second. What fraction of an initial amount of dimethyl ether remain after 47-10 seconds.	A. 1/3 B. 1/6 C. 1/8 D. 1/16
11	Given $A + 3B \rightarrow 2C + D$ This reaction is first order with respect to reactant A and second order with respect to reactant B . If the concentration of A is doubled and the concentration of B is halved. the rate of the reaction would _____ by factor of _____	A. Increase ,2 B. Decrease ,2 C. Increase ,4 D. Decrease ,4

		D. Decrease, +
12	The speed of a chemical reaction	<p>A. Is constant no matter what the temperature is.</p> <p>B. Is independent of the amount of contact surface of a solid involved</p> <p>C. Between gases should be in all cases be extremely rapid because the average kinetic energy of the molecules is great</p> <p>D. Between ions in aqueous solution is extremely rapid because there are no bonds that need to be broken</p>
13	Vitamin which contains cobalt is.	<p>A. Vitamin B1</p> <p>B. Vitamin B2</p> <p>C. Vitamin B6</p> <p>D. Vitamin B12</p>
14	Vitamin D1 is chemically known as	<p>A. Ergocalciferol</p> <p>B. Tocopherol</p> <p>C. Aserphthol</p> <p>D. Phylloquinone</p>
15	The vitamin which is related to monosaccharides is.	<p>A. Vitamin A</p> <p>B. Vitamin C</p> <p>C. Vitamin D</p> <p>D. Vitamin E</p>
16	The deficiency of which vitamin leads to beri brainteaser	<p>A. Thiamine</p> <p>B. Riboflavin</p> <p>C. Pyridoxine</p> <p>D. Asorbic acid</p>
17	The steroid which plays an important role in carbohydrate metabolism is.	<p>A. Oestrone</p> <p>B. Progesterone.</p> <p>C. Androsterone</p> <p>D. Cortisone</p>
18	Which of the following does not have an α,β unsaturated carbonyl group.	<p>A. Androsterone</p> <p>B. Oestrone</p> <p>C. Testosterone</p> <p>D. Progesterone</p>
19	Which of the following is not an androgen i.e. male sex hormones.	<p>A. Androsterone</p> <p>B. Testosterone</p> <p>C. Oestrone</p> <p>D. All of these are male hormone</p>
20	All steroids on heating with selenium give	<p>A. phenanthrene</p> <p>B. Cholesterol</p> <p>C. Diels hydrocarbon</p> <p>D. Isoprene</p>