

## Chemistry 10th Class English Medium Unit 9 Online Test

Sr	Questions	Answers Choice
1	When the magnitude of $K_c$ is very small it indicates.	A. Equilibrium will never establish B. All reactants will be converted to products. C. Reaction will go to completion D. The amount of products is negligible
2	In a chemical reaction, the substances that combine are called.	A. Reactants B. Products C. Equilibrium D. Numerator
3	The reactions in which products can recombine to form reactants are called.	A. Irreversible reactions B. Reversible reactions C. Direct reactions D. Indirect reactions
4	The formation process of ammonia by the combination of hydrogen and nitrogen was given by:	A. Dalton B. Thomson C. Haber D. Waage
5	Which gas is used to prepare ammonia?	A. $N_2$ B. $O_2$ C. $Cl_2$ D. S
6	The value of the equilibrium constant ( $K_c$ ) depends only on:	A. temperature B. Pressure C. concentration D. density
7	The color of iodine is:	A. Purple B. Black C. Red D. Pink
8	A complete reaction is one in which.	A. All the reactants convert into products. B. All the reactants do not convert into products. C. Half the reactants convert into products. D. Only 10% of reactants convert into products.
9	At equilibrium state, when the reaction ceases to proceed, it is called:	A. equilibrium constant B. dynamic equilibrium C. static equilibrium D. simple equilibrium
10	Such a reaction which can be made to proceed in either direction depending upon the condition:	A. simple reaction B. reversible reaction C. irreversible reaction D. chain reaction
11	An equilibrium is achievable only in a:	A. big system B. small system C. open system D. closed system
12	When a system is in equilibrium state or in dynamic equilibrium state.	A. Reactants and products are equal B. Forward reaction stops C. Reverse reaction stops D. Forward reaction rate and reverse reaction rate
13	In an irreversible reaction, dynamic equilibrium:	A. Never establishes B. Establishes before the completion of reaction C. Establishes after the completion of reaction D. Establishes readily
		A. Carbon and Nitrogen

14	The major components of Atmosphere are:	B. Nitrogen and Oxygen C. Oxygen and Chlorine D. None of these
15	The forward reaction takes place:	A. Right to left B. Left to Right C. Only to right D. Only to left
16	Reactions which have comparable amounts of reactants and products at equilibrium state have:	A. very small Kc value B. Very large Kc value C. Moderate Kc value D. None of these
17	Such reactions in which reactants and products are sufficient in quantities the Kc value of equilibrium state will be	A. Very small B. Very large C. Moderate D. None of these
18	The color of hydrogen iodide is:	A. Colourless B. Black C. Red D. Pink
19	When a reaction ceases to proceed further, it is called.	A. Chemical states B. Static state C. Physical state D. Dynamic equilibrium state
20	In an irreversible reaction dynamic equilibrium:	A. Never establishes B. Established before the completion of reaction C. Establishes after the completion of reaction D. Establishes readily
21	Which type of reactions take place in both directions?	A. Decomposition reactions B. Irreversible reactions C. Reversible reactions D. Addition reactions
22	The rate of reverse reaction in the beginning.	A. Slow B. moderate C. Very fast D. Low
23	When the magnitude of Kc is very small it indicates.	A. Equilibrium will never establish B. All reactants will be converted to products. C. Reaction will go to completion D. The amount of products is negligible
24	For a reaction between $\text{PCl}_3$ and $\text{Cl}_2$ to form $\text{PCl}_5$ the units of Kc are:	A. $\text{Mol dm}^{-3}$ B. $\text{Mol}^{-1} \text{ dm}^3$ C. $\text{Mol}^{-1} \text{ dm}^3$ D. $\text{Mol dm}^3$
25	If $Q_c < K_c$ the reaction goes in:	A. Forward B. Reverse C. At equilibrium state D. None
26	Active mass is expressed as:	A. { } B. [ ] C. ( ) D.
27	Which chemical is called king of chemicals?	A. $\text{KNO}_3$ B. $\text{H}_2\text{SO}_4$ C. HCl D. $\text{NaOH}$
28	Which gas is used to manufacture king of chemicals sulphuric acid?	A. $\text{N}_2$ B. $\text{O}_2$ C. $\text{Cl}_2$ D. S
29	In a chemical reaction, the substance that combine are called.	A. Reactant B. Products C. Mass D. Material
30	Equilibrium constant has no unit when number of moles of reactants and products are:	A. same B. Different C. Both a and b D. None of these

		D. None of these
31	The substances formed during the chemical reaction are called.	A. Product B. Reactants C. Radicals D. Element
32	The value of $K_c$ depends on.	A. Temperature B. Pressure C. Volume D. Atmosphere
33	The reaction in which the products can recombine to form reactants are called.	A. Reversible reaction B. Irreversible reaction C. Decomposition D. Addition
34	For which reaction $K_f$ is the rate constant?	A. Forward reaction B. Backward reaction C. Upward reaction D. Downward reaction
35	Which colour of HI is ?	A. Orange B. Purple C. Red D. Colourless
36	A reverse reaction is that.	A. Which proceed from left to high B. In which reactants reacts to form products C. Which slow down gradually D. Which speed up gradually
37	$K_c$ is always equal to	A. $R_f/R_r$ B. $K_f/K_t$ C. $K_f/K_r$ D. $R_r/R_t$
38	Law of Mass Action was put forward by:	A. G.N.Lewis B. Lowry C. Arrhenius D. Guldberg and Waage
39	The two major components of atmosphere are:	A. Hydrogen and oxygen B. Nitrogen and Hydrogen C. Nitrogen and oxygen D. Oxygen and water.
40	Which type of reactions do not go to completion?	A. Irreversible reaction B. Reversible reactions C. Addition reactions D. Decomposition reactions
41	At dynamic equilibrium:	A. The reactions stops to proceed B. The amounts of reactants and products are equal C. The speed of the forward is reverse reactions are equal D. The reaction can no longer be reversed
42	In a Reversible Reaction if $Q_c = K_c$ then.	A. Reaction is occurring in forward direction B. Reaction is occurring in Reverse direction C. Equilibrium has been attained D. Reaction is not at equilibrium
43	A dynamic equilibrium	A. Reaction stops to proceed B. Amounts of reactants and products are equal C. Rate of forward and reverse reaction are equal D. Reaction can no longer be reversed.
44	The reaction in which the products do not recombine to form reactants are called.	A. Inversible reactions B. Reversible reaction C. Decomposition D. Addition
45	What is the colour of hydrogen iodide in product?	A. Purple B. Yellow C. Blue D. Colorless
46	The reaction will attain the equilibrium if:	A. $Q_c < K_c$ B. $Q_c > K_c$ C. $Q_c = K_c$

		D. $Q_c = 0$
47	If $Q_c > K_c$ the reaction will be in	A. Chemical equilibrium B. Static equilibrium C. Reverse reaction D. Forward reaction
48	The substance formed during the chemical reaction are called.	A. Products B. Reactants C. Radical D. Element
49	When $\text{CaCO}_3$ is heated in an open flask, it decomposes to form calcium oxides and .	A. $\text{O}_{2\text{g}}$ B. $\text{CO}$ C. $\text{CO}_{2\text{g}}$ D. $\text{CO}_{3\text{g}}$
50	The unit of molar concentration is:	A. $\text{mol dm}^{-3}$ B. $\text{mol dm}^{+3}$ C. $\text{mol cm}^{-3}$ D. $\text{mol cm}^{+3}$
51	When the number of moles of both sides are equal in a reaction then the unit of $K_c$ will be:	A. no unit B. $\text{mol}^{-2} \text{ dm}^6$ C. $\text{mol dm}^3$ D. $\text{mol}^{-2} \text{ dn}$
52	Which one of the following statements is not correct about active mass?	A. Rate of reaction is directly proportional to active mass. B. Active mass is taken in molar concentration C. Active mass is represented by square brackets D. Active mass means total mass of substances.
53	When the magnitude of $K_c$ is very large it indicates.	A. Reaction never goes to completion B. Reaction is in equilibrium state C. Reaction will complete after some time D. Reaction has almost reached completion
54	The reaction in which the number of moles of reactants and products are not equal in a balanced chemical equation the units of $K_c$ for this reaction are	A. $\text{mol}^{-2}$ B. $\text{dm}^3$ C. $\text{mol}^2$ D. $\text{mol dm}^{-1}$
55	At equilibrium state there are possibilities: OR types of chemical equilibrium are.	A. 1 B. 2 C. 3 D. 4
56	Such reactions which continue in both directions are called.	A. Irreversible B. Reversible C. Nonreactive D. Dynamic
57	Dynamic means, reaction is:	A. In forward direction B. Stop C. In reverse direction D. Still continuing.
58	The % age of nitrogen and oxygen in our atmosphere is:	A. 80 B. 90 C. 95 D. 99
59	Who proposed "Law of mass action"?	A. Newton B. Boyle C. Guldberg and Waage D. Lavoisier
60	When a system is at equilibrium state?	A. The concentration of reactants and products becomes equal B. The opposing reactions C. The rate of the reverse reaction becomes very low D. The rates of the forward and reverse reactions become equal.
61	The reaction goes from left to right, if:	A. $Q_c = K_c$ B. $Q_c > K_c$ C. $Q_c < K_c$ D. $Q_c = 0$
62	Guldberg and Waage put forward law of mass action in:	A. 1860 B. 1869 C. 1870 D. 1879

63	The characteristics of reversible reactions are the following except:	<p>A. Products never recombine to form reactants.</p> <p>B. They never complete</p> <p>C. The proceed in both ways</p> <p>D. They have a double arrow between reactants and products.</p>
64	Which types of reaction speed up gradually?	<p>A. Irreversible reactions</p> <p>B. Reversible reactions</p> <p>C. Forward reactions</p> <p>D. Decomposition reactions.</p>
65	At dynamic equilibrium state:	<p>A. Rate of forward reaction <math>\neq</math> Rate of reverse reaction</p> <p>B. Rate of forward reaction <math>&gt;</math> Rate of reverse reaction</p> <p>C. Rate of forward reaction = Rate of reverse reaction</p> <p>D. Rate of forward reaction <math>&lt;</math> rate of reverse reaction</p>
66	The lives of aquatic plants and animals are indirectly related to concentration of dissolved -- ---- in water:	<p>A. hydrogen</p> <p>B. oxygen</p> <p>C. chlorine</p> <p>D. nitrogen</p>
67	The dynamic equilibrium in irreversible reaction.	<p>A. Never establishes</p> <p>B. Establishes after completion of reaction</p> <p>C. Establishes before completion of reaction</p> <p>D. Establishes very soon</p>
68	The plant use	<p>A. Carbon dioxide</p> <p>B. Oxygen</p> <p>C. Nitrogen</p> <p>D. Sulphur</p>
69	Guldberg and waage out forward law of mass action in:	<p>A. 1889</p> <p>B. 1879</p> <p>C. 1869</p> <p>D. 1859</p>
70	When the reaction causes to produced it is called.	<p>A. Chemical equilibrium state</p> <p>B. Static equilibrium</p> <p>C. Dynamic equilibrium</p> <p>D. All</p>
71	If $Q_c = K_c$ the reaction goes in:	<p>A. Forward</p> <p>B. Reverse</p> <p>C. At equilibrium state</p> <p>D. None</p>
72	When the numbers of moles of both sides are equal in a reaction, then the unit of $K_c$ will be:	<p>A. No unit</p> <p>B. <math>\text{mol}^{-2}</math></p> <p>C. <math>\text{mol}^{-3}</math></p> <p>D. <math>\text{mol}^{-2}</math></p>
73	The unit of molar concentration:	<p>A. <math>\text{mol. dm}^{-2}</math></p> <p>B. <math>\text{mol. dm}^{-1}</math></p> <p>C. <math>\text{mol. dm}</math></p> <p>D. <math>\text{mol. dm}^{-3}</math></p>
74	For reactions having large $K_c$ value, the reaction proceeds to:	<p>A. Completion</p> <p>B. Equilibrium state</p> <p>C. back ward</p> <p>D. None of these</p>
75	We exhale gas in the atmosphere during respiration.	<p>A. Carbon dioxide</p> <p>B. Oxygen</p> <p>C. Nitrogen</p> <p>D. Water</p>
76	In the beginning the rate of reverse reaction is	<p>A. Negligible</p> <p>B. Moderate</p> <p>C. Very fast</p> <p>D. Slow</p>
77	When the rate of a the forward reaction takes place at the rate of reverse reaction the composition of the reaction mixture remains constant it is called.	<p>A. Chemical equilibrium</p> <p>B. Dynamic equilibrium</p> <p>C. Static equilibrium</p> <p>D. All</p>
78	Reaction which have comparable amount of reactants and products at equilibrium state have.	<p>A. Very small <math>K_c</math> value</p> <p>B. Very large <math>K_c</math> value</p> <p>C. Moderate <math>K_c</math> value</p> <p>D. None of these</p>

D. None of these

79 When the magnitude of  $K_c$  is very large it indicates.

- A. Reaction mixture consist of almost all products.
- B. Reaction mixture consist of almost all reactants.
- C. Reaction has not gone to completion
- D. Reaction mixture has negligible products.

80 Equilibrium constant value "K" is equal to:

- A.  $K_t / K_r$
- B.  $K_i / K_r$
- C.  $K_c / Q_c$
- D.  $Q_c / K_c$