

Chemical Equilibrium

Sr	Questions	Answers Choice
1	K _p is used for.	A. Solid state reactions B. Gaseous reactions C. Aqueous reactions D. Liquid reactions
2	K _p = K _c (RT) is used to relate.	A. K _p and K _c B. Temperature and pressure C. Energy and volume D. Gibbs free energy
3	Dynamic equilibrium occurs.	A. In open systems B. Only in gases C. In closed systems D. Only at low temperature
4	Units of K _c depend on	A. Catalyst B. Reaction stoichiometry C. Activation energy D. Delta H
5	Catalyst used in contact process	A. Fe B. V ₂ O ₅ C. Ni D. Al ₂ O ₃
6	Le Chatelier's Principle applies to.	A. Irreversible reactions B. Static equilibrium C. Dynamic equilibrium D. Precipitation reactions
7	Removing a reactant shifts equilibrium to	A. Left B. Right C. No shift D. Depends on temperature
8	Consider the gas phase equilibrium system represented by the equation 2 H ₂ O..... 2H ₂ +O ₂ Given that the forward reaction is endothermic, which of the following changes will decrease the equilibrium amount of H ₂ O.	A. Adding more oxygen B. Adding a solid phase catalyst C. Decreasing the volume of the container D. Increasing the temperature at constant pressure
9	Which statement is true at dynamic equilibrium.	A. No reaction is occurring B. Concentrations are changing C. Rates of forward and reverse reactions are equal D. Rate forward reaction < reverse
10	The reversible reaction cannot be achieved in	A. Open system B. Closed system C. Both a and b D. None of these
11	Which is NOT a feature of dynamic equilibrium.	A. Closed system B. Constant Temperature C. Unequal reaction rates D. No net change
12	Which one of the following is not an example of reversible reaction.	A. Formation of ammonia B. Formation of water C. Decomposition of PCl ₅ D. Decomposition of NO ₂
13	At equilibrium the observable properties.	A. Keep changing B. Fluctuate randomly C. Remain constant D. Oscillate
14	Position of equilibrium is affected by	A. Temperature B. Catalyst C. Inert gas D. Surface area A. Greater than K _c

15	If Δn is positive, then K_p is	B. Less than K_c C. equal K_c D. Zero
16	According to law of mass action rate of reaction is proportional to.	A. Temperature B. Pressure C. Product of active masses D. Atomic mass
17	Reaction in Haber process is	A. Endothermic B. Exothermic C. Irreversible D. Neutral
18	A saturated solution represents a dynamic equilibrium. Macroscopically, the concentration of dissolved solute is constant. Microscopically this occurs because.	A. No more solute particles are dissolving B. The rate of dissolution of solute is zero C. Solute particles are dissolving and precipitating at the same rate D. All solute particles have dissolved
19	Which of the following is an irreversible reaction.	A. Haber process B. Precipitation of Ag Cl C. Synthesis of ammonia D. Esterification
20	Equilibrium constant depends on	A. Pressure B. Temperature C. Volume D. Concentration