

Multiple Choice Questions

1 Which is true about the equilibrium state

- A. The forward reaction stops
- B. The reverse reaction stops
- C. Both forward and reverse reaction stops
- D. Both forward and reverse reaction continue at the same time

2 When a mixture of H_2 and I_2 is sealed in a flask and temperature is kept at 25°C , following equilibrium is established



Which substance or substances will be present in the equilibrium mixture

- A. H_2 and I_2
- B. HI only
- C. H_2 only
- D. H_2 , I_2 and HI

3 What are the units for



- A. $\text{mol}\cdot\text{dm}^{-3}$
- B. $\text{mol}^2\cdot\text{dm}^{-6}$
- C. $\text{dm}^3\cdot\text{mol}^{-1}$
- D. No units

4 which of the following reaction will not have any units for K_c ?

- A. $\text{H}_{2(g)} + \text{CO} \rightleftharpoons \text{H}_2\text{O}_{(g)} + \text{CO}_{(g)}$
- B. $\text{N}_{2(g)} + \text{O}_2 \rightleftharpoons 2\text{NO}_{(g)}$
- C. $2\text{A}_{(g)} + \text{B}_{(g)} \rightleftharpoons 3\text{AC}_{(g)}$
- D. All of these

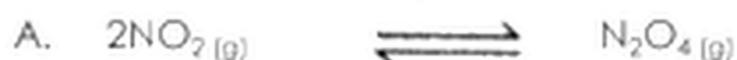
5 Concentration of reactants and products at equilibrium remains unchanged

- A. Concentration of any reactant or product is not changed
- B. temperature of the reaction is not changed
- C. pressure or volume of the system is not changed
- D. All of the above are observed

6 Which of the following does not happen, when a system is at equilibrium stage

- A. Forward and reverse reaction stops
- B. Forward and reverse rate becomes equal
- C. Concentration of reactants and products become equal
- D. Reaction continues to occur in both directions

7 For which reaction, K_c has units of $\text{mol}\cdot\text{dm}^{-3}$.



8 In an irreversible reaction equilibrium is

- A. established quickly
- B. established slowly
- C. never established
- D. established when reaction stops

9 Active mass means

- A. Total mass of reactants
- B. Total mass of products
- C. Total mass of reactants and products
- D. mass of substance in moles per dm³ in a dilute solution

For a reversible reaction

$$K_c = \frac{[C]^2}{[A][B]}$$

Which substance is product of the reaction

- A. A
- B. B
- C. Both A and B
- D. C

Correct Answers

- | | | | | |
|------|------|------|------|-------|
| 1. D | 2. D | 3. D | 4. D | 5. D |
| 6. A | 7. C | 8. C | 9. D | 10. D |

