

Acid-Base Chemistry

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | Which is amphoteric | A. H ₂ O B. HCl C. NaOH D. NH ₃ |
| 2 | Which one of the following is not the applicatio of solubility products. | A. Determination of solubility from K _{sp} B. Common ion effect C. Predicting precipitation D. Dissociation of bonds |
| 3 | Which of the following is a Lewis acid but not a Brontsted Lowry acid | A. HCl B. NH ₃ C. AlCl ₃ D. H ₂ O |
| 4 | The conjugate acid of NH ₃ is | A. NH ₄ B. NH ₂ C. NO ₃ D. N ₂ H ₄ |
| 5 | Strong acids completely dissociate in water because. | A. High solubility B. High K _a C. Forms complex D. Low K _a |
| 6 | An acid and base react to give a.....acid and base | A. Amphoteric B. Salt C. Conjugate D. Neutral |
| 7 | Which of the following is the conjugate base of water. | A. OH ⁻ B. OH ⁺ C. H ₂ O D. H ₂ O ⁺ |
| 8 | Which one of the following compound is added in purificatio of NaCl in common ion effect. | A. HCl B. H ₂ SO ₄ C. HNO ₃ D. HF |
| 9 | The conjugate base of HClO ₄ is | A. ClO ₄ B. ClO ₄ ²⁻ C. hClO ₃ D. H ₂ ClO ₄ ⁺ |
| 10 | A salt that hydrolyzes in water in from | A. Strong acid and base B. Weak acid or base C. None D. Both strong |
| 11 | The solubility product of AgCl is 2.0 x 10 ⁻¹⁰ mol ² dm ⁻⁶ . The maximum concentration of Ag ⁺ ions in the solution is. | A. 2.0 x 10 ⁻¹⁰ mol dm ⁻³ B. 1.41 x 10 ⁻⁵ mol dm ⁻³ C. 1.0 x 10 ⁻¹⁰ mol dm ⁻³ D. 4.0 x 10 ⁻²⁰ mol dm ⁻³ |
| 12 | In an acid base titration, the equivalence point is reached when. | A. pH of the solution is 7.0 B. The indicagor changes color C. Equal volumes of acid and base have been added D. The reaction stops |
| 13 | Which of the following is a diprotic acid | A. HNO ₃ B. H ₂ SO ₄ C. HCl D. CH ₃ COOH |
| 14 | pH of 1 x 10 ⁻⁴ M HCl is | A. 4 B. 1 C. 3.5 D. 7 |

-
- 15 If the concentration of Cl^- ion in a solution is increased, the solubility of silver chloride will
- A. Decrease
B. Increase
C. Remain unchanged
D. Become zero
-
- 16 The pH of distilled water at 25 °C is
- A. 6
B. 7
C. 5
D. 4
-
- 17 Which dialyzing solution has highest pH
- A. Vinegar
B. Lemon juice
C. Ammonia solution
D. Coffee
-
- 18 Which one is a Lewis base.
- A. H^+
B. NH_3
C. HCl
D. BF_3
-
- 19 Which species is both a Bronsted acid and base.
- A. H_2O
B. Na^+
C. OH^-
D. Cl^-
-
- 20 A solution with equal $[\text{H}^+]$ and $[\text{OH}^-]$ is
- A. Basic
B. Acidic
C. Neutral
D. Salt
-