

## Acid-Base Chemistry

Sr	Questions	Answers Choice
1	A base that ionizes completely in aqueous solution is called.	A. Strong base B. Weak base C. Conjugate acid D. Neutral
2	Which indicator is typically used for titration involving strong acids and strong bases.	A. Methyl red B. Phenolphthalein C. Bromothymol blue D. Litmus solution
3	Which of the following is the conjugate base of water.	A. OH <sup>-</sup> B. OH <sup>+</sup> C. H <sub>2</sub> O D. H <sub>2</sub> O <sup>+</sup>
4	If K <sub>a</sub> of acetic acid is $1.8 \times 10^{-5}$ , it is	A. Strong acid B. Base C. Weak acid D. Neutral
5	NaOH is not considered a Bronsted-Lowry acid because.	A. It's neutral B. It's not soluble C. Doesn't donate H <sup>+</sup> D. Doesn't produce H <sup>+</sup>
6	The pH of a buffer doesn't change much when	A. Diluted with water B. Acid or base is added C. Heated D. Temp changes
7	pH of $1 \times 10^{-4}$ M HCl is	A. 4 B. 1 C. 3.5 D. 7
8	The strength of a base is measured by its.	A. K <sub>a</sub> B. K <sub>b</sub> C. K <sub>w</sub> D. K <sub>w</sub>
9	Which of these is NOT a property of acids.	A. Conduct electricity B. Turn litmus red C. Sour taste D. Feel slippery
10	The pK <sub>a</sub> value for HCOOH is.	A. 4.74 B. 3.78 C. 4.78 D. 4.24
11	Which is amphoteric	A. H <sub>2</sub> O B. HCl C. NaOH D. NH <sub>3</sub>
12	CH <sub>3</sub> COONa is a salt of.	A. Strong acid + Strong base B. Weak acid + Strong base C. None D. Weak base + Weak acid
13	The conjugate base of H <sub>2</sub> CO <sub>3</sub> is	A. HCO <sub>3</sub> <sup>-</sup> B. CO <sub>2</sub> C. CO <sub>3</sub> <sup>2-</sup> D. H <sub>2</sub> CO <sub>3</sub>
14	The solubility product of PbSO <sub>4</sub> is	A. $1.6 \times 10^{-8}$ B. $1.4 \times 10^{-4}$ C. $1.6 \times 10^{-6}$ D. $1.6 \times 10^{-2}$
15	If the concentration of Cl <sup>-</sup> ion in a solution is increased, the solubility of silver chloride will	A. Decrease B. Increase C. Remain unchanged D. Become zero

16	Which one is a monoprotic acid	A. H <sub>3</sub> PO <sub>4</sub> B. H <sub>2</sub> SO <sub>4</sub> C. HCl D. H <sub>2</sub> CO <sub>3</sub>
17	The Bronsted Lowry definition identifies acid as.	A. Electron pair acceptors B. Proton donors C. Proton acceptors D. Electron pair donors
18	Which has the lowest pH?	A. 0.1 M CH <sub>3</sub> COOH B. 1 M HCl C. 1 M NH <sub>3</sub> D. 0.1 M HCl
19	In a titration, the equivalence point is when	A. No acid left B. pH = 7 C. Moles of acid = moles of base D. Buffer forms
20	The solubility product of AgCl is $2.0 \times 10^{-10} \text{ mol}^2 \text{ dm}^{-6}$ . The maximum concentration of Ag <sup>+</sup> ions in the solution is.	A. $2.0 \times 10^{-10} \text{ mol dm}^{-3}$ B. $1.41 \times 10^{-5} \text{ mol dm}^{-3}$ C. $1.0 \times 10^{-10} \text{ mol dm}^{-3}$ D. $4.0 \times 10^{-20} \text{ mol dm}^{-3}$