

CHEMISTRY QUESTIONS FOR CLASS 10

(Based on: Acids, Bases and Salts)

GANESH KUMAR

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Exemplar Questions and Solutions(1 Mark)

Question 1. What happens when a solution of an acid is mixed with a solution of a base in a test tube?

- (i) Temperature of the solution decreases
 - (ii) Temperature of the solution increases
 - (iii) Temperature of the solution remains the same
 - (iv) Salt formation takes place
- (a) (i) and (iv) (b) (i) and (iii) (c) (ii) only **(d) (ii) and (iv)**

Question 2. When hydrogen chloride gas is prepared on a humid day, the gas is usually passed through the guard tube containing calcium chloride. The role of calcium chloride taken in the guard tube is to

- (a) absorb the evolved gas **(c) absorb moisture from the gas**
- (b) moisten the gas (d) absorb Cl^- ions from the evolved gas

Explanation: Reason: Guard tube dries (absorbs water) from calcium chloride on a humid day.

Question 3. Which one of the following salts does not contain water of crystallisation?

- (a) Blue vitriol **(b) Baking soda** (c) Washing soda (d) Gypsum

Question 4. In terms of acidic strength, which one of the following is in the correct increasing order?

- (a) Water < Acetic acid < Hydrochloric acid**
- (b) Water < Hydrochloric acid < Acetic acid
- (c) Acetic acid < Water < Hydrochloric acid
- (d) Hydrochloric acid < Water < Acetic acid

Question 5. What is formed when zinc reacts with sodium hydroxide?

- (a) Zinc hydroxide and sodium (c) Sodium zinc-oxide and hydrogen gas
(b) Sodium zincate and hydrogen gas (d) Sodium zincate and water

Explanation: Reason: $\text{Zn} + 2\text{NaOH} \rightarrow \text{Na}_2\text{ZnO}_2$ (Sodium Zincate) + H_2

Question 6. Tomato is a natural source of which acid?

- (a) Acetic acid (b) Citric acid (c) Tartaric acid **(d)** Oxalic acid

Question 7. Brine is an

- (a) aqueous solution of sodium hydroxide
(b) aqueous solution of sodium carbonate
(c) aqueous solution of sodium chloride
(d) aqueous solution of sodium bicarbonate

Question 8. $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ is

- (a)** washing soda (b) baking soda (c) bleaching powder (d) tartaric acid

Question 9. At what temperature is gypsum heated to form Plaster of Paris?

- (a) 90°C **(b)** 100°C (c) 110°C (d) 120°C

Question 10. How many water molecules does hydrated calcium sulphate contain?

- (a) 5 (b) 10 (c) 7 **(d)** 2

Explanation: Reason: Chemical formula of hydrated calcium sulphate or gypsum is $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$

Question 11. Sodium carbonate is a basic salt because it is a salt of a

- (a) strong acid and strong base (b) weak acid and weak base
(c) strong acid and weak base **(d)** weak acid and strong base

Question 12. Alkalis are

- (a) acids, which are soluble in water (b) acids, which are insoluble in water
(c) bases, which are insoluble in water **(d)** bases, which are soluble in water
