



#### Question-22

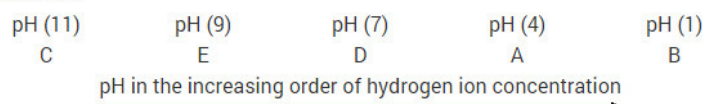
Five solutions A, B, C, D and E when tested with universal indicator showed pH as 4, 1, 11, 7 and 9 respectively. Which solution is?

- (i) Neutral?
- (ii) Strongly alkaline?
- (iii) Strongly acidic?
- (iv) Weakly acidic?
- (v) Weakly alkaline? Arrange the pH in increasing order of hydrogen-ion concentration.

Solution:

Solutions	pH
Neutral (D)	7
Strongly alkaline (C)	11
Strongly acidic (B)	1
Weakly acidic (A)	4
Weakly alkaline (E)	9

Arrangement of pH in the increasing order of hydrogen ion concentration is as follows:



#### Question-23

Equal lengths of magnesium ribbons are taken in test tubes A and B. Hydrochloric acid (HCl) is added to test-tube A while acetic acid ( $\text{CH}_3\text{COOH}$ ) is added to test-tube B. In which test-tube will fizzing occur more vigorously and why?

Solution:

Acetic acid ( $\text{CH}_3\text{COOH}$ ) is a weak acid whereas hydrochloric acid (HCl) is a strong acid. Fizzing occurs in the test tube due to the evolution of hydrogen gas by the action of acid on magnesium ribbon. Since hydrochloric acid is a strong acid a large amount of hydrogen gas is liberated in the test tube A. So fizzing occurs more vigorously in test tube A.

#### Question-24

Fresh milk has a pH of 6. How do you think the pH will change as it turns into curd? Explain.

Solution:

The pH will change to below 6, as lactic acid is formed when milk turns into curd.

#### Question-25

Plaster of Paris should be stored in a moisture-proof container. Why?

Solution:

The presence of moisture can affect the slow setting of plaster of Paris by bringing about its hydration. This will make the plaster of Paris useless after some time.

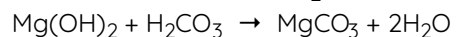
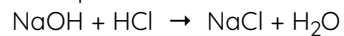
#### Question-26

What is a neutralization reaction? Give two examples.

Solution:

The reaction of an acid and a base, giving rise to the corresponding salt and water is called neutralization reaction.

Examples:



Examples:



Question-27

Give two important uses of washing soda and baking soda.

Solution:

Washing soda

1. It is often used as an electrolyte.
2. Domestically it is used as a water softener during laundry.

Baking soda

1. It is used to test garden soil for acidity. If it develops bubbles, the soil is too acidic.
2. Washing a car with it can remove dead bug bodies without damaging the paint.

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