



**KINETICS**

We Nurture The Future

IIT-JEE | Medical | Foundations

## Acids, Bases and Salts

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Question 1.

When  $\text{CO}_2$  gas is passed through limewater, it turns milky. Which of the following compounds is responsible for this milkiness ?

- (a) Calcium oxide
- (b) Calcium chloride
- (c) sodium carbonate
- (d) Calcium carbonate

▼ [Answer](#)

(d) Calcium carbonate

Calcium carbonate is responsible for this milkiness.

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Question 2.

Which of the following ion is responsible for the acidic nature of hydrochloric acid ?

- (a) Hydrogen ion
- (b) Hydroxide ion
- (c) Chloride ion
- (d) Hydrochloride ion

▼ [Answer](#)

(a) Hydrogen ion

Hydrogen ion is responsible for the acidic nature of hydrochloric acid.

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Question 3.

Distilled water is:

- (a) acidic
- (b) basic
- (c) neutral
- (d) none of these

▼ [Answer](#)

(c) neutral

Distilled water is neutral.

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Question 4.

Ammonia that turns red litmus blue is:

- (a) acidic
- (b) basic
- (c) neutral
- (d) none of these

▼ [Answer](#)

(b) basic  
Ammonia is basic.

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Question 5.

An antacid tablet is given to a person when he suffers from:

- (a) obesity
- (b) acidity
- (c) dog bite
- (d) none of these

▼ [Answer](#)

(b) acidity  
An antacid is a tablet of curing acidity.

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Question 6.

Ant's bite injects:

- (a) acetic acid
- (b) formic acid
- (c) hydrochloric acid
- (d) none of these

▼ [Answer](#)

(b) formic acid  
Ant's bites injects formic acid.

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Question 7.

The acid that our stomach releases is:

- (a) sulphuric acid
- (b) nitric acid
- (c) hydrochloric acid
- (d) formic acid

▼ [Answer](#)

(c) hydrochloric acid  
Our stomach releases hydrochloric acid (HCl).

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Question 8.

Neutralisation reaction is the reaction between:

- (a) acid and base
- (b) salt and water
- (c) base and salt
- (d) acid and salt

▼ [Answer](#)

(a) acid and base  
Neutralisation reaction is between acid and base.

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Question 9.

When the soil is too acidic, it is treated with:

- (a) salt
- (b) water
- (c) base
- (d) acid

▼ [Answer](#)

(c) base

If the soil is acidic, it is treated with base.

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Question 10.

Quick lime is used in soil when the soil is:

- (a) basic
- (b) acidic
- (c) salty
- (d) neutral

▼ [Answer](#)

(b) acidic

If the soil is acidic quick lime is used in soil.

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Question 11.

If the soil is too basic, it is treated with:

- (a) quicklime
- (b) salt
- (c) organic matter
- (d) water

▼ [Answer](#)

(c) organic matter

The soil is basic so it is treated with organic matter.

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Question 12.

The factory waste are neutralised by adding:

- (a) acidic substances
- (b) salts
- (c) basic substances
- (d) water

▼ [Answer](#)

(c) basic substances

The factory waste are neutralised by basic substances.

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Question 13.

Soap is:

- (a) acidic
- (b) basic
- (c) neutral
- (d) salt

▼ [Answer](#)

(b) basic

Soap is basic.

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Question 14.

Litmus is a natural indicator which is extracted from:

- (a) vinegar
- (b) citrus fruits
- (c) lichens
- (d) spinach

▼ [Answer](#)

(c) lichens

Litmus is extracted from lichens.

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Question 15.

The colour of litmus in distilled water is:

- (a) red
- (b) green
- (c) blue
- (d) purple

▼ [Answer](#)

(d) purple

The colour of litmus in distilled water is purple.

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Question 16.

Tartaric acid is found in:

- (a) vinegar
- (b) curd
- (c) amla
- (d) tamarind

▼ [Answer](#)

(d) tamarind

Tartaric acid is found in tamarind.

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Question 17.

Calcium hydroxide is found in:

- (a) soap
- (b) lime water
- (c) vinegar
- (d) milk of magnesia

▼ [Answer](#)

(b) lime water  
Calcium hydroxide is found in lime water.

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Question 18.  
Citric acid is found in:

- (a) fruits
- (b) vegetables
- (c) citrus fruits
- (d) all of these

▼ [Answer](#)

(c) citrus fruits  
Citric acid is found in citrus fruits.

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Question 19.  
Blue litmus paper is dipped in a solution. It remains blue. What is the nature of solution ?

- (a) Acid and base
- (b) Base and neutral
- (c) Acid and neutral
- (d) None of these

▼ [Answer](#)

(b) Base and neutral  
The nature of solution is base and neutral.

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Question 20.  
What will the effect on turmeric with common salt ?

- (a) Turns red
- (b) No effect
- (c) Turns blue
- (d) Turns green

▼ [Answer](#)

(a) Turns red  
The effect on turmeric with common salt turns red.

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Question 21.  
Ascorbic acid is found in:

- (a) citrus fruits
- (b) fruits

- (c) curd
- (d) spinach

▼ [Answer](#)

(a) citrus fruits  
Ascorbic acid is found in citrus fruits.

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Question 22.  
Magnesium hydroxide is found in:  
(a) soap  
(b) lime water  
(c) milk of magnesia  
(d) vegetable

▼ [Answer](#)

(c) milk of magnesia  
Magnesium hydroxide is found in milk of magnesia.

---

Question 23.  
Which of the following turns red litmus blue ?  
(a) Bases  
(b) Acids  
(c) Salts  
(d) None of these

▼ [Answer](#)

(a) Bases  
Base turns red litmus blue.

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Question 24.  
Which of the following turns blue litmus red ?  
(a) Bases  
(b) Acids  
(c) Salts  
(d) None of these

▼ [Answer](#)

(b) Acids  
Acids turn blue litmus red.

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Question 25.  
Which of the following substances makes the fruits sour.  
(a) Acids  
(b) Salts  
(c) Bases  
(d) None of these

▼ [Answer](#)

(a) Acids

Acids make the fruit sour.

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Question 26.

The products of neutralisation reactions are:

- (a) salt and water
- (b) acid and base
- (c) base and salt
- (d) acid and water

▼ [Answer](#)

(a) salt and water

In neutralisation reaction acid and base react to give salt and water.

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Question 27.

Which of the following is not an indicator ?

- (a) Litmus
- (b) Phenolphthalein
- (c) Turmeric
- (d) None of these

▼ [Answer](#)

(d) None of these

All these are indicators.

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Question 28.

Which of the following turns pink solution of a phenolphthalein into a colourless solution ?

- (a) Bases
- (b) Acids
- (c) Salt
- (d) None of these

▼ [Answer](#)

(b) Acids

Acids turn pink solution of phenolphthalein into a colourless solution.

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Question 29.

Which of the following turns colourless solution of phenolphthalein into pink solution ?

- (a) Salt
- (b) Base
- (c) Acid
- (d) All of these

▼ [Answer](#)

(b) Base

Base turns colourless solution of phenolphthalein into pink solution.

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Question 30.

Acids and bases react to produce:

- (a) salt and acid
- (b) salt and water
- (c) salt and hydrogen gas
- (d) none of these

▼ [Answer](#)

(b) salt and water

Acid and bases react to produce salt and water.

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Question 31.

When a particular quantity of hydrochloric acid solution is mixed with a particular quantity of sodium hydroxide solution one gets a:

- (a) basic solution
- (b) acidic solution
- (c) neutral solution
- (d) none of these

▼ [Answer](#)

(c) neutral solution

Acid and base react to give neutral solution.

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Question 32.

In neutralisation reaction:

- (a) heat is absorbed
- (b) heat is evolved
- (c) neither heat is absorbed nor evolved
- (d) none of these

▼ [Answer](#)

(b) heat is evolved

In neutralisation reaction heat is evolved.

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Question 33.

Acids are in taste.

- (a) sour
- (b) sweet
- (c) bitter
- (d) salty

▼ [Answer](#)

(a) sour  
Acids are sour in taste.

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Question 34.  
Taste of base is:

- (a) sour
- (b) salty
- (c) sweet
- (d) bitter

▼ [Answer](#)

(d) bitter  
Taste of base is bitter.

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Question 35.  
Which feels soapy on touch ?

- (a) Acids
- (b) Bases
- (c) Both (a) and (b)
- (d) None of these

▼ [Answer](#)

(b) Bases  
Bases feel soapy on touch.

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Question 36.  
Which of the following are special type of substances that are used to test whether a substance is acidic or basic ?

- (a) Indicators
- (b) Insulators
- (c) Conductors
- (d) None of these

▼ [Answer](#)

(a) Indicators  
Indicators are used to show different types of colours in acidic or basic solutions.

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Question 37.  
The solutions which do not change the colour of either red or blue litmus are known as:

- (a) acidic solution
- (b) basic solution
- (c) salty solution
- (d) neutral solution

▼ [Answer](#)

(d) neutral solution

Neutral solution are neither acidic nor basic.

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Question 38.

How will you classify the reaction between NaOH (aq) and HCl (aq)?

- (a) Combination
- (b) Displacement
- (c) Dissociation
- (d) Neutralisation

▼ [Answer](#)

(d) Neutralisation

Neutralisation is the reaction between NaOH and HCl.

---

Match Column A with Column B:

Question 1.

Column-A	Column-B
(a) Acetic acid	(i) Spinach
(b) Formic acid	(ii) Citrus fruits
(c) Citric acid	(iii) Ant's sting
(d) Oxalic acid	(iv) Vinegar

▼ [Answer](#)

Column-A	Column-B
(a) Acetic acid	(iv) Vinegar
(b) Formic acid	(iii) Ant's sting
(c) Citric acid	(ii) Citrus fruits
(d) Oxalic acid	(i) Spinach

---

Question 2.

Column-A	Column-B
(a) Calcium hydroxide	(i) window cleaner
(b) Ammonium hydroxide	(ii) soap
(c) Sodium hydroxide	(iii) milk of magnesia
(d) Magnesium hydroxide	(iv) lime water

▼ [Answer](#)

Column-A	Column-B
(a) Calcium hydroxide	(iv) lime water
(b) Ammonium hydroxide	(i) window cleaner
(c) Sodium hydroxide	(ii) soap

(d) Magnesium hydroxide (iii) milk of magnesia

---

Question 3.

Column-A	Column-B
(a) Acids turns	(i) Sour in taste
(b) Bases turns	(ii) Blue litmus
(c) Acid are	(iii) Bitter in taste
(d) Bases are	(iv) Red litmus blue

▼ Answer

Column-A	Column-B
(a) Acids turns	(ii) Blue litmus
(b) Bases turns	(iv) Red litmus blue
(c) Acid are	(i) Sour in taste
(d) Bases are	(iii) Bitter in taste

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State whether the following statements are 'True' or 'False':

Question 1.

Curd, orange juice and vinegar are sour because they contain acids.

▼ Answer

True

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Question 2.

Substances which are bitter in taste are known as acids.

▼ Answer

False

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Question 3.

Nitric acid turns red litmus blue.

▼ Answer

False

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Question 4.

Sodium hydroxide turns blue litmus red.

▼ Answer

False

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Question 5.

Tooth decay is caused by the presence of a base.

▼ [Answer](#)

False

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Question 6.

Indicator is a substance which shows different colours in acidic and basic solutions.

▼ [Answer](#)

True

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Question 7.

Sodium hydroxide and hydrochloric acid neutralise each other and form salt and water.

▼ [Answer](#)

True

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Question 8.

Lime water is found in tartaric acid.

▼ [Answer](#)

False

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Question 9.

The reaction between an acid and base is known as neutralisation.

▼ [Answer](#)

True

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Question 10.

An acid and a base neutralise each other and form a salt.

▼ [Answer](#)

True

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Question 11.

The solutions which change the colour of either red or blue litmus are known as neutral solution.

▼ [Answer](#)

False

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Question 12.  
Distilled are is acids.

▼ [Answer](#)

False

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Question 13.  
The wastes of many factories contain acids.

▼ [Answer](#)

True

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Question 14.  
Organic matter releases gases which neutralises the basic nature of the soil.

▼ [Answer](#)

False

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Question 15.  
Our stomach contains hydrochloric acid.

▼ [Answer](#)

True

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Question 16.  
When an ant bites, it injects the ascorlic acid into the skin.

▼ [Answer](#)

False

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[Consider the following statements:](#)

Question 1.  
Both acids and bases change colour of all indicators.

▼ [Answer](#)

All four

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Question 2.  
If an indicator gives a colour change with an acid, it does not give a change with a base.

▼ [Answer](#)

(a) and (d)

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Question 3.

If an indicator change colour with a base, it does not change colour with an acid.

▼ [Answer](#)

(b) and (c)

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Question 4.

Change of colour in an acid and a base depends on the type of the indicator. Which of the statements are correct ?

▼ [Answer](#)

only

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[Fill in the blanks:](#)

Question 1.

An ..... tablet is taken when you suffer from acidity.

▼ [Answer](#)

antacid

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Question 2.

Calamine solution is applied on the skin when an ..... bites.

▼ [Answer](#)

ant

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Question 3.

..... waste is neutralised before disposing it into the water bodies.

▼ [Answer](#)

Factory

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Question 4.

Ammonia is found in household products, such as ..... cleaners.

▼ [Answer](#)

window

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Question 5.

Acids are ..... in taste.

▼ [Answer](#)

sour

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Question 6.

..... are bitter in taste and soapy to touch.

▼ [Answer](#)

Base

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Question 7.

Substances which are neither acid nor basic are called .....

▼ [Answer](#)

neutral

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Question 8.

Solution of substances that show different colours in acidic basic and neutral solutions are called .....

▼ [Answer](#)

indicators

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Question 9.

Excessive use of chemical fertilisers makes the ..... acidic.

▼ [Answer](#)

soil

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Question 10.

The word acid comes from the Latin word ..... which means sour.

▼ [Answer](#)

acere

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Question 11.

The chemical nature of such substances is .....

▼ [Answer](#)

acidic

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Question 12.

Lactic acid is found in .....

▼ [Answer](#)

curd

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