

ACID, BASE AND SALTS

Time: 1hr. 15 min.

Q1) Which is not a property of acids?

- i) Acids turn blue litmus red.
- ii) With china rose indicator, these give dark pink colour
- iii) Acids do not change the colour of turmeric indicator.
- iv) These are sour to taste
- v) Acids turn red litmus blue.

Q2) Which is not a property of base?

- i) These are bitter to taste.
- ii) Bases do not change the colour of red litmus.
- iii) Bases give green colour with china rose indicator.
- iv) Bases turn the colour of turmeric indicator to red.

Q3) Name the source from which litmus solution is obtained.

- i) Base ii) lichens iii) Acid iv) Fungus

Q4) Is distilled water acidic/basic/neutral/amphoteric?

Q5) Tooth decay is caused by the presence of a base.

- i) False ii) True iii) None

Q64 An antacid tablet contains

- i) Base ii) Acid iii) None

Q74 Milk of magnesia contains

- i) Acid ii) Base iii) Both

Q84 Calamine soln. is applied on the skin when ant-bites. It is

- i) None ii) Acidic iii) Basic

Q94 Sodium hydroxide is a/an

- i) Acid ii) None iii) Base

Q104 Which of these statement is correct?

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

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

iii) Change of colour in an acid and a base depends on the type of the indicator.

iv) None

Q11) The correct way of making a solution of acid in water is to

- i) Add water to acid
- ii) Add acid to water
- iii) Mix acid and water simultaneously by stirring the solution.
- iv) Add water to acid in a shallow container.

Q12) Products of neutralisation reaction are

- i) Acid, Base
- ii) Salt, Base
- iii) Water, Acid
- iv) Water, Salt

Q13) Turmeric is a natural indicator. On adding its paste to acid and base separately, which colour would be observed.

- i) Yellow in both acid and base
- ii) Yellow in acid and red in base
- iii) Pink in acid and yellow in base
- iv) Red in acid and yellow in base

Q144 Phenolphthalein is a synthetic indicator and its colours in acidic and basic solutions, respectively are

- i) red, blue
- ii) blue, red
- iii) pink, colourless
- iv) colourless, pink

Q157 Neutralisation reaction is a

- i) Physical change that cannot be reversed
- ii) Physical and reversible
- iii) chemical and reversible
- iv) chemical change that cannot be reversed.

Q167 Which of the following set of substances contain acids?

- i) Grapes, lime water
- ii) Curd, Milk of magnesia
- iii) Curd, vinegar
- iv) Vinegar, toothpaste

Q17) On adding phenolphthalein indicator to a colourless solution, no change is observed. What is the nature of this solution?

- i) Basic
- ii) Basic / Neutral
- iii) Neutral
- iv) Acidic / Neutral

Q18) Which of the following is an acid-base indicator

- i) Caustic soda
- ii) Caustic Potash
- iii) Turmeric
- iv) Baking soda
- v) Cinnabar

Q19) Preeti is suffering from indigestion due to acidity. Which of the following can Preeti take to get relief

- i) Caustic soda
- ii) Caustic Potash
- iii) Vinegar
- iv) Limestone

Q20) Match the following:

- | | |
|-----------------------|-------------------|
| i) Tartaric acid | a) lime water |
| ii) Lactic acid | b) Ant's sting |
| iii) Oxalic acid | c) Unripe mangoes |
| iv) Formic acid | d) curd |
| v) Sodium hydroxide | e) Soap |
| vi) Calcium hydroxide | f) broccoli |

Q21) _____ is an olfactory indicator

- i) _____ ii) _____
- iii) _____ iv) _____

Q22) Litmus is obtained from a type of tree called _____

- i) _____ ii) _____
- iii) _____ iv) _____

Q23) _____ is a natural indicator and _____ is a synthetic indicator used in the chemical laboratory to detect the nature of compound.

- i) _____ ii) _____
- iii) _____ iv) _____

Q24) The substance whose colour does not change in any solution of indicator is called _____ substance.

- i) Acidic ii) Basic iii) Neutral iv) Amphoteric

Q25) Acids turn china rose indicator into _____ and bases turn china rose indicator into _____

- a) colourless, pink b) Pink, green
- c) Magenta, blue d) Magenta, green

Q26) Acids turn turmeric paper indicator into _____ and bases turn turmeric into _____

- a) Yellow, Colourless
- b) Colourless, red
- b) red, Yellow
- d) Yellow, red

Q27) Acidic solution has pH _____

- a) = 7
- b) < 7
- c) > 7
- d) > 8

Q28) Neutral solution has pH _____

- a) < 7
- b) < 10
- c) = 7
- d) > 5

Q29) pH of strong alkali solution is _____

- a) > 6
- b) > 7
- c) > 12
- d) < 7

Q30) pH of strong acid solution is _____

- a) = 7
- b) < 4
- c) > 7
- d) > 10

Q31) The acid found in fruits is called

- a) Strong acid
- b) Weak acid
- c) Mixed acid
- d) All of these
- e) None of these

Q32) Acid present in soured curd is

- a) Lactic acid
- b) Acetic acid
- c) Tartaric acid
- d) Oxalic acid

Q33) Which of the following acid is used by gold smith for dissolving gold?
a. Nitric acid b. Aqua regia c. sulphonic acid
d. Hydrochloric acid

Q34) Which of the following substance present in turmeric changes its colour on reaction with base?
a. Lichen b. Magnesia c. Curcumin d. None

Q35) Which of the following is not an indicator
a. China rose b. Onion c. clove d. lemon

Q36) Sodium Bicarbonate is commonly called
a. lime water b. Slaked lime
c. Washing soda d. Baking soda

Q37) Complete the following analogy :

I) Turmeric : Indicator :: Milk of magnesia :
a. strong acid b. Antidote for sting
c. Antacid d. Hydrated salt

II) Sea water : Salty :: _____ : Soap
a) Bitter b) Slippery c) Sour d) Both a, b.

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III) Ant bite: Toothpaste ∴ Indigestion: _____

- a) Milk of magnesia
- b) Aqua regia
- c) Washing powder
- d) Chilled water

Q387 Which of the following salt is used for making detergent powder?

- a) Washing soda
- b) Potassium nitrate
- c) Sodium bicarbonate
- d) Sodium hydroxide

Q397 Which of the following is not a base

- a) Magnesium hydroxide
- b) Calcium hydroxide
- c) Calcium carbonate
- d) Sodium hydroxide

Q407 Antacids contain

- a) Strong acid
- b) Weak base
- c) Strong base
- d) Weak acid

Q417 Detection by an indicator depends upon

- a) change in: its colour
- b) its physical state
- c) its temperature
- d) its pressure

Q427 Acid in vinegar is:

- a) Sulphuric acid
- b) Ascorbic acid
- c) acetic acid
- d) formic acid

Q43) Reaction of an acid with a base is:

- a) Decomposition
- b) Combination
- c) Displacement
- d) Neutralisation

Q44) Which medicines are used for treating indigestion?

- a) Antiseptic
- b) Analgesic
- c) Anesthesia
- d) Antacid

Q45) Which of the following is acidic in nature?

- a) Apple juice
- b) Soap solution
- c) Slaked lime
- d) None

Q46) ----- is the strongest acid

- a) Formic acid
- b) Lactic acid
- c) Nitric acid
- d) Malic acid

Q47) Sharp pain caused by an ant bite is due to:

- a) Malic acid
- b) Nitric acid
- c) Lactic acid
- d) Formic acid

Q48) Acids are stored in glass containers and not in metallic containers. Why?

- a) Glass containers are cheaper
- b) Glass containers are least electropositive
- c) Glass containers are transparent
- d) Metal containers are heavier.

Q49) Which of the following statements is correct?

- a) Excess of hydrochloric acid in stomach causes indigestion.
- b) Excess of carbon dioxide in air can cause acid rain.
- c) Acids are corrosive in nature.
- d) All the above

Q50) changes colour in acidic, ~~acid~~ basic medium and used as an olfactory indicator.

- a) Onion
- b) Vanilla
- c) Clove oil
- d) All

Q51) Match:

Column-I (Acid)

- A) Acetic acid
- B) Tartaric acid
- C) Oxalic acid
- D) Citric acid
- E) Tannic acid

Column-II (Source)

- i) Vinegar
- ii) Tea
- iii) Orange
- iv) Tamarind
- v) Spinach

Column-I

- A) Malic acid
- B) Zinc carbonate
- C) Ammonium hydroxide
- D) Lactic acid

Column-II

- i) Milk
- ii) Window cleaner
- iii) Apple
- iv) Calamine

Column-I

- A) Alkali
- B) Sting of Ant
- C) Bitter
- D) Indicator

Column-II

- i) Soluble base
- ii) Litmus
- iii) Calamine
- iv) Formic acid

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Column - I

Column - II

A) slaked lime

i) Used in batteries

B) Turmeric indicator

ii) Apply on bee's sting

C) Sulphuric acid

iii) Turns brown with the application of soap

D) Vinegar

iv) Sour in taste

Q522 Rohan and Mohan went to a party. Rohan ate too much fast food in the party and after returning home was complaining about stomachache. Mohan was worried and took him to doctor. Doctor told them this is due to excess of fast food and indigestion. Doctor advised for some antacid.

Answer the following

A) What is the cause of indigestion?

a) Sulphuric acid b) Hydrogen peroxide

c) Hydrochloric acid d) Nitric acid

B) Which of the following is used as an antacid

a) Magnesium chloride

b) Magnesium carbonate

c) Magnesium hydroxide

d) Magnesium sulphate

Q 53/27 (A): Sulphuric acid is also known as oil of vitriol

(R): It has oily appearance

- i) Both A, R are true and R is the correct explanation of A.
- ii) Both A, R are true but R is not the correct explanation of A.
- iii) A is true but R is false
- iv) A is false but R is true

Q 54 (A): Rain containing excess amount of acid is called acid rain.

(R): Air pollutants like carbon dioxide, sulphur dioxide, nitrogen dioxide dissolve in water to form carbonic acid, sulphuric acid, nitric acid

- i) Both A, R are true and R is the correct explanation of A.
- ii) Both A, R are true but R is not the correct explanation of A.
- iii) A is true but R is false
- iv) A is false but R is true.

114 (A) : Sodium hydroxide is an alkali

(R) : All bases are alkalies

i) A - true, R - true and R is the correct explanation of A.

ii) A - true R - true but R is not the correct explanation of A.

iii) A - true R - false

iv) A - false R - true.

Q 547 If you perform an experiment bare handed and you realise that your palm has become slippery and slimy. The most probable reason for this is that you have dropped :

A) Hydrochloric acid on your hands

B) Sodium chloride " " "

C) Sodium hydroxide " " "

D) None

Q 537 When few drops of phenolphthalein are added to sample 'A' it turned pink. To this pink coloured solution we added a few drops of sample 'B'. With continuous stirring the pink colour disappears. Sample 'A' and 'B' are:

- A) A: acidic B: Basic
 B) A: Basic B: Acidic
 C) A: Acidic B: Neutral
 D) A: Basic B: Neutral
 E) A: Basic B: Basic

Q 538 ----- is used to treat soil that is acid on which plants do not grow well.

- A) Quicklime B) Slaked lime
 C) Calcium oxide D) Any one of A) B) C)

Q 539 Many salts absorb water (moisture) from atmosphere. This property is called

- A) Hydration B) Crystallisation C) Hygroscopic
 D) Dehydration

Q 540 The substances which form hydronium ions in water are called

- A) Acid B) Indicator C) Base D) Amphoteric

Q 541 Non-metallic oxides react with water to form

- A) Alkaline solution B) Acidic solution
 C) Neutral solution D) None

Q60) Citric acid has pH of _____

- a) 10 b) < 7 c) $= 7$ d) 1

Q61) Acid reacts with metal to form

- A) Salt + CO_2 c) Salt + O_2
B) Salt + Water d) Salt + H_2

Q62) Common name of H_2SO_4 is:

- A) Oil of Vitriol B) Muriatic acid
C) Blue Vitriol D) Green Vitriol

Q63) Common name of CuSO_4 is:

Q64) Common name of HCl is:

Q65) In acids methyl orange turns:

Q66) Lime water is:

- i) NaOH ii) Ca(OH)_2 iii) Mg(OH)_2
iv) CaCO_3

Q67) Caustic soda is the common name for

- i) NaCl ii) Na_2CO_3 iii) NaOH iv) NaHCO_3

Q68) Ca(OH)_2 is used in

- i) Plastics, Dyes ii) fertilizers
iii) Antacid iv) White washing