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# EXERCISES!

Q1  
Ans

State difference between acids and bases?

Acids

Bases

1. Acids are sour in taste.
2. Acids turn litmus blue.

1. Bases are bitter in taste.
2. Bases turn red litmus blue.

Q2. Ammonia is found in many household products, such as window cleaners. It turns red litmus blue. What is its nature?

Ans Its nature is base.

Q3 Name the source from which litmus solution is obtained. What is the use of this solution?

Ans Litmus solution is obtained from lichens. Litmus is an indicator. It changes their colour when added to a solution containing an acidic or a basic substance.

Q4 Is the distilled water acidic/basic/neutral? How would you verify it?



Ans Distilled water is neutral in nature. We can verify with indicator.

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Q5 Describe the process of net neutralisation with the help of an Example.

Ans The reaction between acid and base is known as neutralisation. Salt and water are produced in this process with the evolution of heat.

$$\text{Acid} + \text{Base} \rightarrow \text{Salt} + \text{water}$$

Q6 Mark 'T' if the statement is true and 'F' if it is false:

i) Nitric acid turns red litmus blue. (False)

ii) Sodium hydroxide turns blue litmus to red. (False)

iii) Sodium hydroxide and hydrochloric acid neutralise each other and form salt and water. (True)

iv) Indicator is a substance which shows different colours in acidic and basic solutions. (True)

v) Tooth decay is caused by the presence of a base. (False)



Q7

Dosji has a few bottles of soft drink in his restaurant. But, unfortunately, these are not labelled. He has to serve the drinks on the demand of customers. One customer wants acidic drink, another wants basic and third one wants neutral drink. How will Dosji decide which drink is to be served to whom?

Ans

He can decide by the indicator. If the sample drink turns red, litmus blue, it is basic. If it turns blue litmus red, it is acidic. If it does not affect litmus it is neutral.

Q8 Explain why:

a) An antacid tablet is taken when you suffer from acidity.

Ans

Antacid are bases. Antacid neutralise the excess acid, released by stomach.

b) Calamine solution is applied on the skin when an ant bites.

Ans

Ant injects an acid during bites. Calamine solution is basic in nature. It neutralise the acid and relieve us from pain.



Q) Factory waste is neutralised before disposing it into the water bodies.

Ans Factory wastes can be acidic or basic and harmful for us. So they are neutralised.

Q9 Three liquids are given to you. One is hydrochloric acid, another is sodium hydroxide and third is a sugar solution. How will you identify them? You have only turmeric indicator.

Ans We add turmeric solution in both solution. If solution turns red it is basic and then add another solution. If it turns yellow again it is acid otherwise it is sugar solution.

Q10 Blue litmus paper is dipped in a solution. It remains blue. What is the nature of the solution? Explain.

Ans The solution may be neutral or basic. Both type of substance have no effect.

Q11 Consider the following statements:

a) Both acids and bases change colour of all indicators.

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



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

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

Q Which of these statements are correct?

i) All four

ii) a and d

iii) b, c and d

iv) only (d)

