

India's Number 1 Education App

### **CHEMISTRY**

## **BOOKS - MBD NCERT SOLUTIONS**

## ACIDS, BASES AND SALTS

**Multiple Choice Questions** 

**1.** Tooth enamel contains :

A. Calcium carbonate

- B. Calcium sulphate
- C. Calcium phosphate
- D. Calcium chloride.

#### Answer: B

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#### 2. Which is a neutralisation reaction :

#### A. $NaOH + HCl ightarrow NaCl + H_2O$

 $\texttt{B.} \ NaCl + AgNO_3 \rightarrow NaNO_3 + AgCl$ 

C.  $Zn + 2HCl \rightarrow ZnCl_2 + H_2$ 

D.  $2Fe + 3Cl_2 
ightarrow 2FeCl_3$  .

**Answer: A** 



3. Bleaching powder when treated with dil. HCl

gives :

A.  $CO_2$  gas

B.  $H_2$  gas

#### C. $Cl_2$ gas

D. None .

#### Answer: C



#### 4. On diluting a solution of pH of 4, its pH :

A. Remains same

B. Decreases

C. Increases

D. Becomes 14

#### Answer: C

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## **5.** Two solutions P and Q have pH values of 6 and 2 respectively, which is a stronger acid ?

A. P

B.Q

C. Both have same strength

D. None .

Answer: B

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6. Acid rain has pH :

A. More than 5.6

B. Less than 5.6

C. 7

D. 14





#### 7. pH of human blood lies between:

- A. 7.35 7.45
- B. 8.35 8.45
- C. Less than 7
- D. More than 8.

Answer: A



- 8. Tartaric acid is present in :
  - A. Orange
  - B. Tomato
  - C. Tamarind
  - D. Sour milk.

#### Answer: C



9. What will be the pH of solution which turns

red litmus Blue ?

A. 1

B. 15

C. 10

D. 4

#### Answer: C



10. A solution turns blue litmus red. Its pH will

be :

A. 3

B. 7

C. 8

D. 10

Answer: A

11. Tooth enamel is made up of:

A. Magnesium Hydroxide

B. Calcium Hydroxide

C. Calcium Sulphate

D. Calcium Phosphate.

Answer: D



**12.** The formula of slaked lime is :

- A. Calcium Carbonate
- B. Calcium Hydroxide
- C. Calcium Oxide
- D. Calcium Chloride.

Answer: C



13. Number of water molecules as water of

crystallisation present in Gypsum

A. 2

B. 4

C. 5

 $\mathsf{D}.\,\frac{1}{2}$ 

Answer: D

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14. The acid produced in our stomach is :

A. Lactic Acid

B. Oxalic Acid

C. Hydrochloric Acid

D. Methanoic Acid

#### Answer: C

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# **15.** Which is incorrect statement in the following?

A. Aqueous solution of an acid conduct

electricity.

B. The p in pH stand for power.

C. Our body works within the pH range 7.0

to 7.8.

D. Calcium sulphate Hemihydrate is known

as Bleaching powder.

Answer: D

16. A solution showed pH 9. This solution is:

A. Strongly acidic

B. Strongly alkaline

C. Weakly acidic

D. Weakly alkaline.

Answer: D



Very Short Answer Type Questions

1. Why should curd and sour substances not

be kept in brass and copper vessels ?

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**2.** Why do HCI,  $HNO_3$ , etc. show acidic characters in aqueous solutions while solutions of compounds like alcohol and glucose do not show acidic character ?

3. Why does an aqueous solution of an acid

conduct electricity?



4. Why does dry HCl gas not change the colour

of the dry litmus paper ?

5. While diluting an acid, why is it recommended that the acid should be added to water and not water to the acid ?



## **6.** How is the concentration of hydronium ions

 $ig(H_3O^+ig)$  affected when a solution of an acid

is diluted ?

**7.** How is the concentration of hydroxide ions  $[OH^{-}]$  affected when excess base is dissolved in a solution of sodium hydroxide ?

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8. What is the common name of compound

 $CaOCl_2$ ?

**9.** You have three solutions A, B and C whose pH values are 4, 7 and 10 respectively. Out of the above solutions, which solution is acidic ?



10. You have three solutions whose pH values

are 3, 7 and 9 respectively. Out of the above

solutions, which solution is basic?

**11.** You have three solutions whose pH values are 2, 7 and 11 respectively. Out of the above solutions, which solution is neutral ?



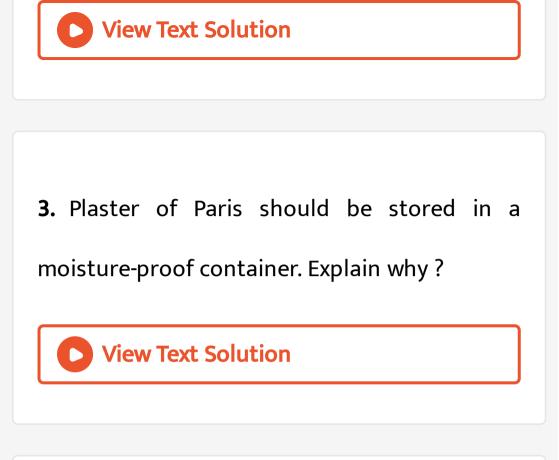
**12.** You have three solutions whose pH values are 3, 7 and 9 respectively. Out of the above solutions, which solution is acidic ?



**1.** You have two solutions, A and B. The pH of solution A is 6 and pH of solution B is 8. Which solution has more hydrogen ion concentration? Which of this is acidic and which one is basic ?

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**2.** Why does not distilled water conduct electricity, whereas rain water does ?



**4.** What is a neutralisation reaction ? Give two examples.



5. Give two important uses of washing soda
and baking soda.
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6. What is 'Baking Powder ? How does it make

the cake, soft and spongy?

7. How does the flow of acid rain water into a river make the survival of aquatic life in the river difficult ?



8. Explain why for diluting an acid, concentrated acid is added to water and not

water to concentrated acid ?

**9.** Write the chemical formula for washing soda. How may it be obtained from baking soda ? Name an industrial use of washing soda other than washing clothes.



10. Write the chemical formula for bleaching powder. How is bleaching powder prepared ?For what purpose is it used in paper factories ?

**11.** What is the chemical formula for Plaster of Paris ? How is it prepared ? State the common and the chemical names of the compound formed when Plaster of Paris is mixed with water.

**12.** A white powder having an odour of chlorine is used to remove yellowness of white

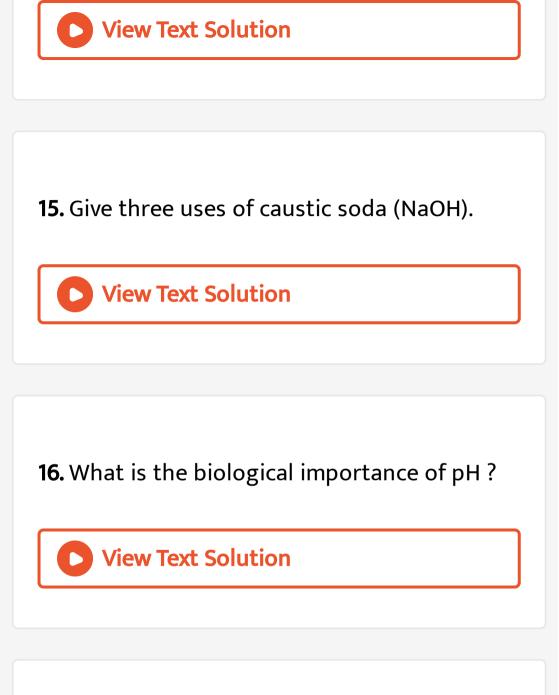
clothes in laundries . Name this powder . How

is it prepared ? Write the chemical reaction

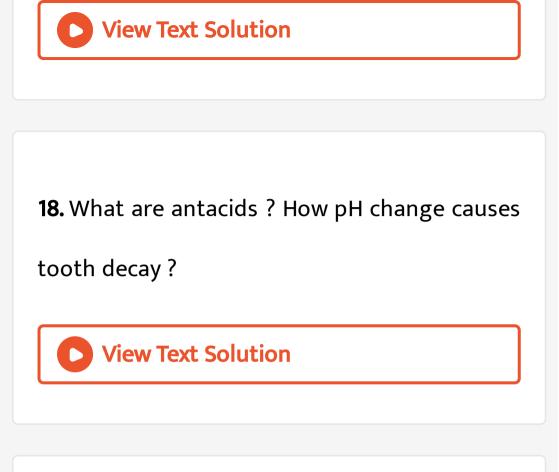
involved in its preparation .

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<b>13.</b> Write a note on pH scale.
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<b>14.</b> What is pH scale ? How is it used to identify

the acidic and basic solution .



**17.** Give four uses of bleaching powder.



19. Write Chemical equation for Chloralkali

process. Give its one use also.



20. What is chlor-alkali process ? Give chemical

reaction for process.



#### 21. Match the following :

- Column (A)
- (I) Vinegar
- (II) Indigestion
- (III) Indicator
- (IV) Curd

- Column (B)
- (I) Antacids
  - (II) Lactic acid
- (III) Methyl orange
  - (IV) Acetic acid

22. What is a neutrilisation reaction ? Give two

examples.

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23. What is pH scale ?

#### 24. Match the following :

(A)	Sodium Hydroxide	<b>(I)</b>	2.2
<b>(B)</b>	Stomach Juice	<b>(II)</b>	14
(C)	Lemon Juice	(III)	10
<b>(D)</b>	Milk of Magnesia	(IV)	1.2



### 25. What is the chemical formula of baking

soda?

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Long Answer Type Questions

**1.** How is Plaster of Paris prepared ? Why is temperature control necessary during its preparation ? How does it react with water ?

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2. What happens when gypsum is heated to

373 K ? Give chemical equations .

**3.** Give important uses of Plaster of Paris.



**4.** (a) What is efflorescence ? Name one compound which shows efflorescence. Support your answer with reason.

(b) Give three important properties of washing

soda.

**5.** Write the chemical formulae of washing Soda. What happens when crystals of washing soda are exposed to air ?



#### 6. What is baking soda ? How is it prepared ?

Give its important properties and uses.



7. Describe the following processes:

(i) Esterification (ii) Saponification (iii)

Hydrogenation.

