

India's Number 1 Education App

CHEMISTRY

BOOKS - VGS BRILLIANT CHEMISTRY (TELUGU ENGLISH)

ACIDS, BASESAND SALTS

Exercise

1. Which of the following solution has incorrect option of colour change,

when different indicators are used?

Indicators	$Ca(OH)_2$	CH_3COOH	HNO_3	NH_4 (
Red Litmus	Blue	No colour change	NO colour	Blue

Blue Litmus No colour change Red Red No co Phenolphthalein Pink Colourless Colourless No co

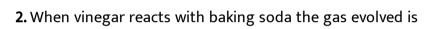
Methyl orange Yellow Yellow Pink Yellov

A. $Ca(OH)_2$ and CH_3COOH

B. CH_3COOH and NH_4OH

C. CH_3COOH and HNO_3

D. $Ca(OH)_2$ and HNO_3		
Answer:		
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- A. hydrogen
- B. oxygen
- C. Carbon dioxide
- D. nitrogen dioxide



3. Identify the correct representation of reaction occurring during chloroalkali process.

A.
$$2NaCl_{\,(\,l\,)}\,+2H_{2}O_{\,(\,l\,)}\, o 2NaOH_{\,(\,l\,)}\,+Cl_{2\,(\,g\,)}\,+H_{2\,(\,g\,)}$$

$${\rm B.}\, 2NaCl_{\,(\,aq\,)}\, + 2H_2O_{\,(\,aq\,)}\, \to 2NaOH_{\,(\,aq\,)}\, + Cl_{2\,(\,g\,)}\, + H_{2\,(\,g\,)}$$

C.
$$2NaCl_{\,(\,aq)}\,+2H_{2}O_{l}
ightarrow\,2NaOH_{\,(\,aq)}\,+Cl_{\,2\,(\,g\,)}\,+H_{2\,(\,g\,)}$$

D.
$$2NaCl_{aq}+2H_2O_l
ightarrow 2NaOH_{aq}+Cl_{2\,(\,g\,)\,+H_{2\,(\,\sigma\,)}}$$

Answer:



4. During the preparation of hydrogen chloride gas on a humid day, the gas is usually passed through the guard tube containing calcium chloride. The role of calcium chloride taken in the guard tube is to

A. absorb the evolved gas

B. moisten the gas

D. absorb Cl ions from the evolved gas
Answer:
Watch Video Solution
5. The aqueous solution of Aluminium Sulphate is
A. Acidic
B. Basic
C. Amphoteric D. Roth (R) and (C)
D. Both (B) and (C)
Answer:
Watch Video Solution

C. absorb moisture from the gas

- 6. Plaster of Paris hardens by
 - A. giving of CO_2
 - B. changing into $CaCO_3$
 - C. combining with water
 - D. giving out water



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- 7. Consider the following statements:
- a. The hydronium ion $\left(H_3O^+
 ight)$ is the strongest acid that can exist in aqueous solution .
- b. Mixing concentrated acid or bases with water is a highly endothermic reaction .

Which of these statement (s) is / are correct?

A. A only B. B only C. Both A and B D. Neither A nor B **Answer: Watch Video Solution** 8. Consider the following statements: a) Hydrogen chloride gas turns red litmus blue. b) Lactic acid is one of the mineral acids. c) Milk of Magnesia is a type of milk. Which of these statement (s) is / are correct? A. a and b B. a and c C. All are correct

D. All are incorrect
Answer:
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9. Select the odd one out:
A. 1. Glass
B. 2. Cement
C. 3. Plaster
D. 4. Washing Soda
Answer:
Watch Video Solution

10. If a few drops of a concentrated acid accidentally spills over the hand of a student what should be done?

- A. Wash the hand with saline solution.
- B. Wash the land immediately with plenty and water and apply a paste of sodium hydrogen carbonate.
- C. After washing with plenty of water apply solution of sodium hydroxide on the hand.
- D. Neutralise the acid with a strong alkali



- 11. What is correct for following?
- i) Lemon Juice ii) Solution of washing soda iii) Tooth paste iv) Stomach juices v) Vinegar

- A. i, iv ,v are acids and ii,iii are bases
- B. ii,iii are acids and i, iv,v are bases.
- C. i,iii,iv,v are acids and it is in base.
- D. i,ii,iii, are acids and iv,v are bases.



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- **12.** A man runs towards a mirror with a speed of 15 $m-s^{-1}$. What is the speed of his image?
 - A. $7 \cdot 5$ m-s $^(-1)$

B. 15 $m-s^{-1}$

- $\mathsf{C.30} m s^{-1}$
- D. 45 $m-s^{-1}$

13. Which of the following solution has incorrect option of colour change,

when different indicators are used?

 HNO_3 Indicators $Ca(OH)_2$ CH_3COOH NH_4 Red Litmus Blue No colour change NO colour Blue Blue Litmus No colour change Red Red No co

No co

Yello

Phenolphthalein Pink Colourless Colourless Yellow Methyl orange Yellow Pink

A.
$$Ca(OH)_2$$
 and CH_3COOH

B. CH_3COOH and NH_4OH

C. CH_3COOH and HNO_3

D. $Ca(OH)_2$ and HNO_3

Answer:



- A. hydrogen
- B. oxygen
- C. Carbon dioxide
- D. nitrogen dioxide



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- 15. Identify the correct representation of reaction occurring during chloroalkali process.
- A. $2NaCl_{(1)}+2H_2O_{(1)}
 ightarrow 2NaOH_{(1)}+Cl_{2(q)}+H_{2(q)}$
 - B. $2NaCl_{(aq)} + 2H_2O_{(aq)} \rightarrow 2NaOH_{(aq)} + Cl_{2(q)} + H_{2(q)}$
 - C. $2NaCl_{(ag)}+2H_2O_l
 ightarrow 2NaOH_{(ag)}+Cl_{2(g)}+H_{2(g)}$
 - D. $2NaCl_{aq}+2H_2O_l
 ightarrow 2NaOH_{aq}+Cl_{2\,(\,g\,)\,+H_{2\,(g)}}$

16. During the preparation of hydrogen chloride gas on a humid day, the gas is usually passed through the guard tube containing calcium chloride. The role of calcium chloride taken in the guard tube is to

- A. absorb the evolved gas
- B. moisten the gas
- C. absorb moisture from the gas
- D. absorb Cl ions from the evolved gas

Answer:



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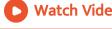
17. The aqueous solution of Aluminium Sulphate is

A. Acidic

B. Basic C. Amphoteric D. Both (B) and (C) **Answer: Watch Video Solution** 18. Plaster of Paris hardens by

- A. giving of CO_2
- B. changing into $CaCO_3$
- C. combining with water
- D. giving out water

Answer:



19. Consider the following statements :

a. The hydronium ion $\left(H_3O^+\right)$ is the strongest acid that can exist in aqueous solution .

b. Mixing concentrated acid or bases with water is a highly endothermic reaction.

Which of these statement (s) is / are correct?

A. A only

B. B only

C. Both A and B

D. Neither A nor B

Answer:



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20. Consider the following statements:

a) Hydrogen chloride gas turns red litmus blue .

b) Lactic acid is one of the mineral acids .		
c) Milk of Magnesia is a type of milk .		
Which of these statement (s) is / are correct ?		
A. a and b		
B. a and c		
C. All are correct		
D. All are incorrect		
Answer:		
Watch Video Solution		
21. Select the odd one out:		
A. Glass		
B. Cement		
C. Plaster		

D. Washing Soda

Answer:



Watch Video Solution

22. If a few drops of a concentrated acid accidentally spills over the hand of a student what should be done?

A. Wash the hand with saline solution.

B. Wash the land immediately with plenty and water and apply a paste

of sodium hydrogen carbonate.

C. After washing with plenty of water apply solution of sodium hydroxide on the hand.

D. Neutralise the acid with a strong alkali

Answer:



23. What is correct for following?

i) Lemon Juice ii) Solution of washing soda iii) Tooth paste iv) Stomach juices v) Vinegar

A. i, iv ,v are acids and ii,iii are bases

B. ii,iii are acids and i, iv,v are bases.

C. i,iii,iv,v are acids and it is in base.

D. i,ii,iii, are acids and iv,v are bases.

Answer:



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24. A man runs towards a mirror with a speed of 15 $m-s^{-1}$. What is the speed of his image?

A. $7 \cdot 5$ m-s^(-1) `

B. 15
$$m-s^{-1}$$

C. 30
$$m-s^{\,-1}$$

D. 45
$$m-s^{\,-1}$$

