

CHEMISTRY

BOOKS - BHARATI BHAWAN CHEMISTRY (HINGLISH)

ACIDS, BASES AND SALTS

Fill In The Blanks

1. Acids do not show their acidic properties in the absence of



2. Acids have a taste, whereas bases have a
taste
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3. Acids when dissolved in water produce ions.
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4. The ions present in a dilute aqueous solution of
hydrochloric acid are and Watch Video Solution

5. Lemon juice is in nature.
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6. Red-cabbage juice is a indicator .
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7. Onion juice is an in dicator .
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8. A solution of sodium acetate in water is in nature.



9. Basic solutions have pH greater than,



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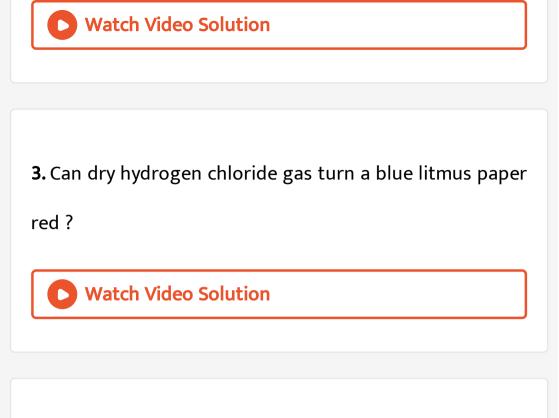
Write Yes Or No

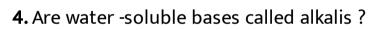
1. Are acids electrolytes?



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2. Why should curd and sour substances not be kept in brass and copper vessels?







5. Do bases dissolved in water produce hydroxyl ions?



6. Do acidic solutions contain OH^- ions ?
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7. Do plants grow better when the soil is highly acidic?
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8. Can onion juice be used by a blind student to test whether a solution is acidic or basic ?
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Mark The Statements True T Or False F

1. A strong acid is almost completely ionized in its aqueous solution.



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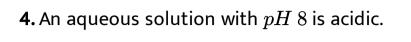
2. when excess of a base is dissolved in a solution of sodim hydroxide, the concetration of hydroxide ion in the solution decrease.



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3. An antacid is used to neutralize excess acid present in the stomach.







5. C_2H_5 OH is base because it contains OH group .



6. Baking powder is pure sodium hydrogencarbonate.



7. When an acid reacts with a metal, hydrogen gas is produced.



8. The acid present in orange juice is citric acid.



9. Vanilla essence and olive oil are olfactory indicators.



10. A universal indicator is used to determine the acidic or basic stength of a solution .



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MCQ

1. Which of the following statements about the dissolution of ammonium chloride in water is (are) correct?

A. the temperature of the solution increases.

B. The solution becomes alkaline.

C. the solution become acidic

D. The temperature of the solution decreases.

Answer: C::D



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2. Which of the following substances should be added to an acidic solution to make it basic?

- A. Baking soda
- B. sulphuric acid
- C. Ammonium hydroxide
- D. calcium hydroxide

Answer: A::C::D

- 3. The consitituents present in baking soda are
 - A. calcium bicarbonate
 - B. sodium hydrogencarbonate
 - C. tartaric acid
 - D. Citric acid

Answer: B::C



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4. Which of the following is (are) not natural acid (s)?

A. Tartaric acidB. Hydrochloric acidC. Nitric acidD. Oxalic acid

Answer: B::C



- 5. Which of the following statements is (are) wrong?
 - A. Lime juice is acidic in nature.
 - B. Turmeric cannot be used as an indicator by a visally impaired student.

- C. Higher the pH, stronger is the acid.
- D. Calcium phosphate present in tooth enamel is basic in nature.

Answer: C



- **6.** A small amount of hydrochloric acid is added to water.
- Which of the following about this is (are) correct?
 - A. Hydrochloric acid gets ionized
 - B. A salt is produced
 - C. Hydrochloric acid forms the upper layer.

D. H_3O^+ and Cl^- ions are formed.

Answer: A::D



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- 7. Which of the following are not olfactory indicators?
 - A. Onion juice
 - B. Turmeric
 - C. Red-cabbage juice
 - D. Olive oil

Answer: B::C



Very Short Answer Question

- 1. What happens when a solution of an acid is mixed with
- (i) The temperature of the solution increases

a solution of a base in a test tube?

- (ii) The temperature of the solution decreases
- (iii) The temperature of the solution remains the same
- (iv) Salt formation takes place



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2. How is hydrogen chloride gas dried?



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3. What is the pH of the gastric juice present present in our stomach?



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4. What acid is produced in fatigued muscles after doing a vigorous exercise ?



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5. Why is citric acid called an orgainc acid?



6. What are the indicators called if they emit different odours when added to acids and bases ?



7. Which gas is produced when an acid reacts with a metal?



8. What is a universal indicator?



9. How is the painful effect of a honeybee sting treated?



10. What should we do when someone is stung by the leaves of a nettle plant?



11. Why does dry hydrogen chloride gas not show its acidic property?



12. What is the natural indicator that is obtained from lichens?



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13. Name the common element which is present in all acids .



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14. An excess of acid in the stomach causes acidity. Which of the following substance should be used as a remedy?

Vinegar Lemon juice baking soda solution

Give reasons for your answer.



Short Answer Questions

- **1.** What will be the action of litmus paper on the following substances?
- (i) Lemon juice (ii) Vinegar (iii) Dry HCI gas
- (iv) Dry NH_3 (v) Soap solution (vi) Milk



2. How will you distinguish an acid from a base when no litmus paper is available to you?



3. What is meant by strong acids and weak acids? Classifiy the following into strong acids and weak acids: $HCl, HC_3COOH, H_2SO_4, HCO_3, H_2CO_3, H_2SO_3$.



4. Name three mineral acids.



5. What are organic acids? Name any two organic acids.



6. What are olfactory indications? How is an olfactory indicator used to test whether a given solution is an strength.



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7. There test tubes, A ,B and C contain ageous solutions having pH equal, to 3,8 and 7 respectively. Arrange them in the order of their increasing acidic strength.



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8. Name two materials which can be added to a highly acidic soil to reduce its acidity. Give reasons for your

answer.



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9. Classify the following substancesd into 2 groups:

PH > 7 and pH > 7

Lemon juice Wine Limewater Blood Acid rain How do these substances react with litmus paper?



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10. Name the natural source for each of the following substance:

(i) Oxalic acid (ii) Tartaric acid (iii) Malic acid

(iv) Citric acid (v) Lactic aicd



11. Some substance are given below:

 $NH_4CI, CuSO_4, CH_3COONa, NaCI, NH_3NO_3, Na_2SO_4$ Which of these substance will produce (i) an acidic solution. (ii) a basic solution and (iii) a neutral solution?



12. How does the pH of lemon juice change when a tablet of an antacid is dissolved in it ?



13. The powder of a black substance taken in a test tube is treated with dilute sulphuric acid. The substance dissolves to produce a blue solution.



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14. Name the acid present in ant sting. How will you treat yourself stung by an ant?



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Long Answer Questions

1. Define acid and decribe any five characteristic of an acid.



2. Describe any five general characteristics of a base.



3. Distinguish between strong acids and weak acids. Give two examples each.



4. How does a strong base differ from a weak base ? Give two examples of each .



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- **5.** Give reasons for the following:
- (i) Distilled water does not conduct electricity but rain water does.
- (ii) Acids do not show acidic behaviour in the absence of water.
- (iii) A solution with pH less than 7 is acidic.
- (iv) HCI shows acidic behaviour in aqeous solution but C_2H_5OH does not .



- 6. Explain the following:
- (i) Acid salt (ii) Fire extinguisher
- (iii) Olfactory indicator (iv) pH-scale



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7. Describe an activity to show that glucose and ethanol do not conduct electrity even though they contain hydrogen.

