

CHAPTER 2

1. What is the pH of a neutral solution?

- a) 0
- b) 7
- c) 14
- d) 1

Answer: b) 7

2. Which of the following is not an acid?

- a) HCl
- b) H₂SO₄
- c) NaOH
- d) HNO₃

Answer: c) NaOH

3. Which of the following is not a property of an acid?

- a) It turns blue litmus red.
- b) It reacts with bases to form salt and water.
- c) It releases hydrogen ions (H⁺) in aqueous solution.
- d) It has a bitter taste.

Answer: d) It has a bitter taste.

4. Which of the following is not a property of a base?

- a) It turns red litmus blue.
- b) It feels slippery to touch.
- c) It reacts with acids to form salt and water.
- d) It releases hydroxide ions (OH⁻) in aqueous solution.

Answer: a) It turns red litmus blue.

5. Which of the following is a strong acid?

- a) CH₃COOH

b) HNO_2

c) H_2SO_4

d) H_2CO_3

Answer: c) H_2SO_4

6. Which of the following is a weak base?

a) NaOH

b) KOH

c) NH_3

d) $\text{Ca}(\text{OH})_2$

Answer: c) NH_3

7. What is the pH of a basic solution?

a) 0

b) 7

c) 14

d) 1

Answer: c) 14

8. Which of the following is not a salt?

a) NaCl

b) CaCO_3

c) NH_4Cl

d) H_2SO_4

Answer: d) H_2SO_4

9. Which acid is present in ant sting?

a) H_2SO_4

b) HCl

c) Formic acid

d) Nitric acid

Answer: c) Formic acid

10. Which of the following is not a use of baking soda?

- a) As an antacid
- b) As a leavening agent
- c) As a cleaning agent
- d) As a fuel

Answer: d) As a fuel

11. Which of the following is a natural indicator?

- a) Litmus
- b) Phenolphthalein
- c) Methyl orange
- d) All of the above

Answer: a) Litmus

12. Which of the following is a synthetic indicator?

- a) Litmus
- b) Phenolphthalein
- c) Methyl orange
- d) All of the above

Answer: b) Phenolphthalein

13. Which of the following is added to soil to make it more acidic?

- a) Slaked lime
- b) Quicklime
- c) Ammonium sulfate
- d) All of the above

Answer: c) Ammonium sulfate

14. Which of the following is added to soil to make it more basic?

- a) Slaked lime

- b) Quicklime
- c) Ammonium sulfate
- d) All of the above

Answer: a) Slaked lime

15. Which of the following is used to make soap?

- a) Acids
- b) Bases
- c) Salts
- d) All of the above

Answer: b) Bases

16. Which of the following is used to make toothpaste?

- a) Acids
- b) Bases
- c) Salts
- d) All of the above

Answer: c) Salts

17. Which of the following is used to make fertilizers?

- a) Acids
- b) Bases
- c) Salts
- d) All of the above

Answer: c) Salts

18. What happens when an acid reacts with a metal?

- a) A salt and water are formed.
- b) A base and water are formed.
- c) A gas and water are formed.
- d) A metal oxide and water are formed.

Answer: c) A gas and water are formed.

19. What is the gas formed when an acid reacts with a metal?

- a) Hydrogen
- b) Oxygen
- c) Carbon dioxide
- d) Nitrogen

Answer: a) Hydrogen

20. Which of the following is a strong base?

- a) NaOH
- b) KOH
- c) NH₃
- d) Ca(OH)₂

Answer: d) Ca(OH)₂

21. Which of the following is a weak acid?

- a) HCl
- b) HNO₃
- c) CH₃COOH
- d) H₂SO₄

Answer: c) CH₃COOH

22. Which of the following is a strong acid?

- a) HCl
- b) HNO₃
- c) CH₃COOH
- d) H₂SO₄

Answer: a) HCl

23. Which of the following is a weak base?

- a) NaOH

- b) KOH
- c) NH₃
- d) Ca(OH)₂

Answer: c) NH₃

24. Which of the following is a strong base?

- a) NaOH
- b) KOH
- c) NH₃
- d) Ca(OH)₂

Answer: a) NaOH

25. What is the pH of a neutral solution?

- a) 0
- b) 7
- c) 14
- d) None of the above

Answer: b) 7

26. What is the pH of an acidic solution?

- a) Less than 7
- b) Greater than 7
- c) Equal to 7
- d) None of the above

Answer: a) Less than 7

27. What is the pH of a basic solution?

- a) Less than 7
- b) Greater than 7
- c) Equal to 7
- d) None of the above

Answer: b) Greater than 7

28. What is the pH of lemon juice?

a) 2

b) 7

c) 10

d) 14

Answer: a) 2

29. What is the pH of milk of magnesia?

a) 2

b) 7

c) 10

d) 14

Answer: c) 10

30. What is the pH of bleach?

a) 2

b) 7

c) 10

d) 14

Answer: d) 14