SASKATCHEWAN CHEMISTRY 30 · UNIT D · 25 QUESTIONS

Acid-Base Reactions and Equilibrium — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A substance that produces hydrogen ions in water is called**

- **A** acid
- **B** pH
- **C** strong acid
- **D** weak acid

Understand It with Pulse | Flag a mistake

2 **A solution with pH 3 is**

- **A** basic
- **B** acidic
- **C** neutral
- **D** pure water

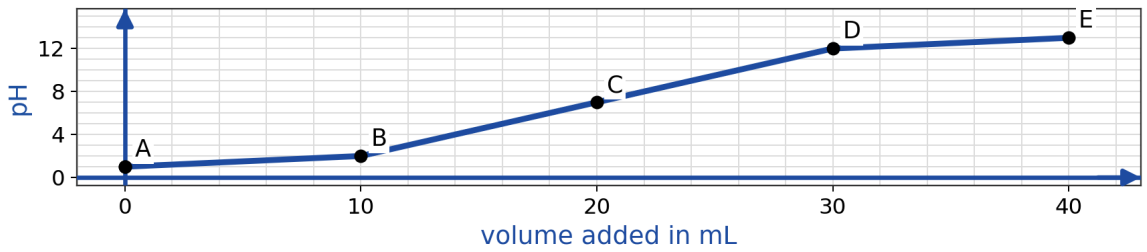
Understand It with Pulse | Flag a mistake

3 **The hydrogen ion concentration is 1 × 10^{-3} moles per litre . The pH is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **The graph shows pH during a titration. The pH at the steep rise, at 20 mL added, is _____**



ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A substance that produces hydroxide ions in water is called**

A strong acid

B weak acid

C base

D neutralization

Understand It with Pulse | Flag a mistake

6 **A solution with pH 11 is**

A acidic

B neutral

C pure water

D basic

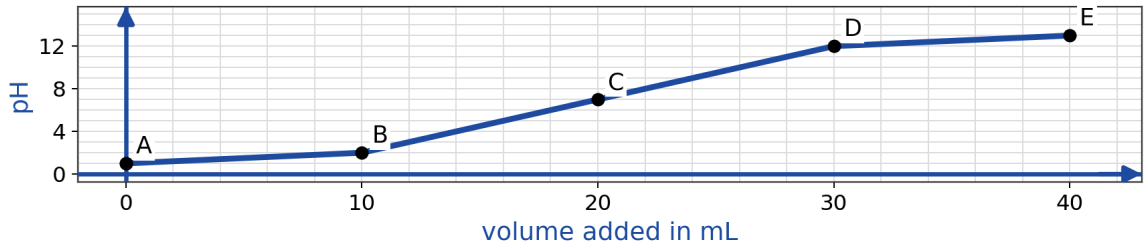
Understand It with Pulse | Flag a mistake

7 **The hydrogen ion concentration is $1 \times 10^{-}1$ moles per litre . The pH is _____**

ANSWER

Understand It with Pulse | Flag a mistake

8 **The graph shows a titration curve with a steep rise. The steep rise is near the**



A equivalence point

B start only

C end only

D buffer region

Understand It with Pulse | Flag a mistake

9 **A measure of hydrogen ion concentration on a logarithmic scale is called**

A weak acid

B pH

C neutralization

D buffer

Understand It with Pulse | Flag a mistake

10 **A strong acid differs from a weak acid because it**

A has a higher pH

B never reacts

C ionizes completely

D is always dilute

Understand It with Pulse | Flag a mistake

11 **The hydrogen ion concentration is $1 \times 10^{-}5$ moles per litre . The pH is _____**

ANSWER

Understand It with Pulse | Flag a mistake

12 **An acid that ionizes completely in water is called**

A neutralization

B buffer

C titration

D strong acid

Understand It with Pulse | Flag a mistake

13 **A buffer resists changes in pH because it contains**

A a weak acid and its conjugate base

B only water

C only a strong acid

D only a salt

Understand It with Pulse | Flag a mistake

14 **A neutral solution at 25 degrees has a pH of**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **An acid that ionizes only partly in water is called**

- A buffer
- B weak acid
- C titration
- D equivalence point

Understand It with Pulse | Flag a mistake

16 **In a titration, the equivalence point is where**

- A colour first appears
- B pH is always 7
- C reactants have reacted in exact ratio
- D no reaction happens

Understand It with Pulse | Flag a mistake

17 **Which of the following is a base**

A hydrochloric acid

B sodium hydroxide

C vinegar

D lemon juice

Understand It with Pulse | Flag a mistake

18 **A reaction between an acid and a base forming salt and water is called**

A titration

B equivalence point

C indicator

D neutralization

Understand It with Pulse | Flag a mistake

19 **Neutralization of hydrochloric acid with sodium hydroxide produces**

A sodium chloride and water

B only hydrogen gas

C only oxygen

D only salt with no water

Understand It with Pulse | Flag a mistake

20 **A titration uses equal volumes of acid and base at the same concentration. The ratio of moles of acid to moles of base that reacted is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A solution that resists changes in pH is called**

A equivalence point

B buffer

C indicator

D acid

Understand It with Pulse | Flag a mistake

22 **A solution has pOH 3. Its pH is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A method that finds concentration using a measured reaction is called**

- **A** indicator
- **B** acid
- **C** titration
- **D** base

Understand It with Pulse | Flag a mistake

24 **A solution has pOH 5. Its pH is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **The point in a titration where reactants have reacted in exact ratio is called**

A acid

B base

C pH

D equivalence point

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. A
2. B
3. 3
4. 7
5. C
6. D
7. 1
8. A
9. B
10. C
11. 5
12. D
13. A
14. 7
15. B
16. C
17. B
18. D
19. A
20. 1
21. B
22. 11
23. C
24. 9
25. D

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