PRINCE EDWARD ISLAND CHEMISTRY 12 · UNIT C

Acids and Bases — Practice Test

Prince Edward Island Chemistry 12 • 25 questions

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 solution has pH 9. Its pOH at 25 degrees Celsius is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A solution has pOH 3. Its pH at 25 degrees Celsius is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A strong acid solution has hydrogen ion concentration 0.01 moles per litre. Its pH is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Neutralizing 0.02 moles of acid with 0.1 molar base requires this many litres of base**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A solution has hydrogen ion concentration 0.000001 moles per litre. Its pH is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A solution with pH 7 at 25 degrees Celsius is**

A basic

B concentrated

C neutral

D acidic

Understand It with Pulse | Flag a mistake

7 **A solution with pH greater than 7 is**

- A acidic
- B neutral
- C a salt always
- D basic

Understand It with Pulse | Flag a mistake

8 **A solution with pH less than 7 is**

- A acidic
- B basic
- C neutral
- D a buffer always

Understand It with Pulse | Flag a mistake

9 **A strong acid**

- A ionizes completely in water
- B ionizes partly in water
- C never ionizes
- D forms a buffer only

Understand It with Pulse | Flag a mistake

10 **A strong acid solution has hydrogen ion concentration 1e-05 moles per litre. Its pH is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **A weak acid**

A ionizes completely in water

B never ionizes

C is always dilute

D ionizes partly in water

Understand It with Pulse | Flag a mistake

12 **An Arrhenius acid produces in water**

A hydroxide ions

B salt only

C electrons

D hydrogen ions

Understand It with Pulse | Flag a mistake

13 **An Arrhenius base produces in water**

A hydroxide ions

B hydrogen ions

C salt only

D electrons

Understand It with Pulse | Flag a mistake

14 **An indicator changes colour near the**

A start of a titration

B equivalence point only in theory

C boiling point

D endpoint of a titration

Understand It with Pulse | Flag a mistake

15 **At the equivalence point of a strong acid strong base titration, pH is**

- **A** 7
- **B** less than 7
- **C** greater than 7
- **D** 0

Understand It with Pulse | Flag a mistake

16 **Neutralization of an acid by a base produces**

- **A** hydrogen gas always
- **B** a salt and water
- **C** an acid only
- **D** a base only

Understand It with Pulse | Flag a mistake

17 **A solution has pH 12. Its pOH at 25 degrees Celsius is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **A solution has pOH 5. Its pH at 25 degrees Celsius is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **A strong acid solution has hydrogen ion concentration 0.001 moles per litre. Its pH is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **Neutralizing 0.01 moles of acid with 0.05 molar base requires this many litres of base**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A solution has hydrogen ion concentration 0.0000001 moles per litre. Its pH is**

ANSWER

Understand It with Pulse | Flag a mistake

22 **A solution has pH 4. Its pOH at 25 degrees Celsius is**

ANSWER

Understand It with Pulse | Flag a mistake

23 **A solution has pOH 2. Its pH at 25 degrees Celsius is**

ANSWER

Understand It with Pulse | Flag a mistake

24 **A strong acid solution has hydrogen ion concentration 0.1 moles per litre. Its pH is**

ANSWER

Understand It with Pulse | Flag a mistake

25 **Neutralizing 0.05 moles of acid with 0.25 molar base requires this many litres of base**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	5	**10.**	5	**19.**	3
2.	11	**11.**	D	**20.**	0.2
3.	2	**12.**	D	**21.**	7
4.	0.2	**13.**	A	**22.**	10
5.	6	**14.**	D	**23.**	12
6.	C	**15.**	A	**24.**	1
7.	D	**16.**	B	**25.**	0.2
8.	A	**17.**	2		
9.	A	**18.**	9		

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