CHEMISTRY 3202 · NEWFOUNDLAND AND LABRADOR

Chemistry 3202

Practice Test

Unit B: Acids and Bases

25 Questions

Original practice test based on the Newfoundland and Labrador curriculum. Work through each question, then check your answers at the end.

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.

© 2026 Brett Robbins. All Rights Reserved.



Question 1

An acid is a substance that donates

A) hydrogen ions

B) hydroxide ions

C) electrons only

D) sodium ions

Understand It with Pulse | Flag a mistake

Question 2

A base is a substance that accepts

A) sodium ions

B) hydrogen ions

C) electrons only

D) chloride ions

Understand It with Pulse | Flag a mistake

Question 3

A strong acid in water is best described as one that ionizes

A) hardly at all

B) only when heated

C) almost completely

D) only in oil

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.



Question 4

A weak acid in water ionizes

A) completely

B) never

C) only with a catalyst

D) only partly

Understand It with Pulse

Flag a mistake

Question 5

The pH scale measures the concentration of

A) hydrogen ions

B) hydroxide ions

C) sodium ions

D) electrons

Understand It with Pulse

Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.



Question 6

A solution with pH 7 at 25 degrees is

A) acidic

B) neutral

C) basic

D) concentrated

Understand It with Pulse

Flag a mistake



Question 7

A solution with pH 3 is best described as

A) basic

B) neutral

C) acidic

D) a buffer

Understand It with Pulse

Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

Question 8

A solution with pH 11 is best described as

A) basic

B) acidic

C) neutral

D) pure water

Understand It with Pulse

Flag a mistake



Question 9

Neutralization of an acid with a base typically produces a salt and

A) water

B) hydrogen gas

C) oxygen gas

D) carbon dioxide only

Understand It with Pulse

Flag a mistake

Question 10

A conjugate base is formed when an acid

A) gains a hydrogen ion

B) loses a hydrogen ion

C) loses an electron

D) gains a neutron

Understand It with Pulse

Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

Question 11

A buffer solution resists changes in pH when small amounts of acid or base are

A) removed by filtration

B) frozen

C) added

D) diluted greatly

Understand It with Pulse | Flag a mistake

Question 12

In a titration, the equivalence point is reached when the moles of acid and base have reacted in the

A) same volume only

B) same mass only

C) same colour only

D) stoichiometric ratio

Understand It with Pulse | Flag a mistake

Question 13

Phenolphthalein is colourless in acid and turns pink in

A) base

B) salt water

C) oil

D) pure acid only

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.



Question 14

The ion product of water at 25 degrees is 1.0 times 10 to the negative 14. This means pH plus pOH equals

A) 7

B) 14

C) 10

D) 1

Understand It with Pulse

Flag a mistake

Question 15

Ammonia acts as a base in water because it accepts a hydrogen ion to form

A) nitrate

B) hydronium

C) ammonium

D) hydroxide only

Understand It with Pulse

Flag a mistake

Question 16

Hydrogen ion concentration is 0.01 moles per litre. The pH is 2, since 0.01 is 10 to the negative 2. The pH value is

Understand It with Pulse

Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

Question 17

Hydrogen ion concentration is 0.0001 moles per litre. The pH value is

Understand It with Pulse | Flag a mistake

Question 18

Hydrogen ion concentration is 0.001 moles per litre. The pH value is

Understand It with Pulse | Flag a mistake

Question 19

A solution has pH 9. Its pOH value, given pH plus pOH equals 14, is

Understand It with Pulse | Flag a mistake

Question 20

A solution has pH 12. Its pOH value is

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

Question 21

A solution has pH 5. Its pOH value is

Understand It with Pulse Flag a mistake

Question 22

A titration uses 0.10 moles per litre base and 0.050 litres. The moles of base used is

Understand It with Pulse Flag a mistake

Question 23

An acid sample contains 0.020 moles. It is neutralized by 0.20 moles per litre base. The volume of base in litres is

Understand It with Pulse Flag a mistake

Question 24

An acid sample contains 0.030 moles. It is neutralized by 0.30 moles per litre base. The volume of base in litres is

Understand It with Pulse Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

Question 25

A base solution has hydroxide concentration 0.01 moles per litre. Its pOH value is

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

ANSWER KEY

1.	A	**10.**	B	**18.**	3
2.	B	**11.**	C	**19.**	5
3.	C	**12.**	D	**20.**	2
4.	D	**13.**	A	**21.**	9
5.	A	**14.**	B	**22.**	0.005000000000000001
6.	B	**15.**	C	**23.**	0.09999999999999999
7.	C	**16.**	2	**24.**	0.1
8.	A	**17.**	4	**25.**	2
9.	A				

© 2026 Brett Robbins. All Rights Reserved.