ACIDS AND BASES - PRACTICE TEST | NEW BRUNSWICK CHEMISTRY 121-122 · UNIT C · 25 QUESTIONS

Acids and Bases — 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 solution has hydrogen ion concentration 0.001 moles per litre. Its pH is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A solution has hydrogen ion concentration 0.00001 moles per litre. Its pH is**

ANSWER _____

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3 **A solution has pH 2. Its hydrogen ion concentration in moles per litre is**

ANSWER _____

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4 **A solution has pH 4. Its hydrogen ion concentration in moles per litre is**

ANSWER _____

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5 **A solution has pH 9. Its pOH is**

ANSWER _____

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6 **A solution has pOH 3. Its pH is**

ANSWER _____

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7 **A strong acid of concentration 0.1 molar is fully dissociated. Its hydrogen ion concentration in moles per litre is**

ANSWER _____

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8 **A titration uses 20 millilitres of 0.1 molar acid to neutralise a base. The moles of acid used are 0.002. Expressed in millimoles the value is**

ANSWER _____

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9 **A titration uses 25 millilitres of 0.2 molar base. The moles of base in millimoles are**

ANSWER _____

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10 **A solution has hydrogen ion concentration ten times higher than another. The pH difference is**

ANSWER _____

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11 A neutral solution at 25 degrees has pH 7. A solution with pH 3 is acidic by how many pH units below neutral

Question 11

A neutral solution at 25 degrees has pH 7. A solution with pH 3 is acidic by how many pH units below neutral

ANSWER

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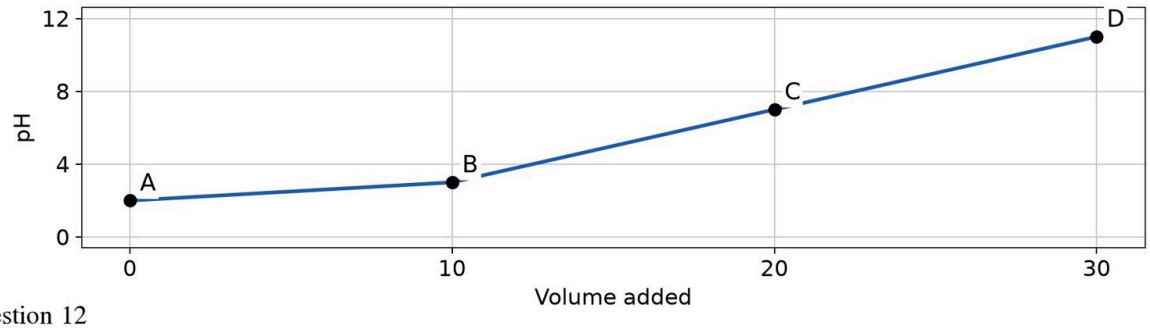
12 The titration graph rises sharply at 20 millilitres. The equivalence volume in millilitres is



Question 12

The titration graph rises sharply at 20 millilitres. The equivalence volume in millilitres is

ANSWER

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13 **According to the Bronsted Lowry definition, what does an acid donate?**

- A electron
- B proton
- C neutron
- D hydroxide ion

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14 **According to the Bronsted Lowry definition, what does a base accept?**

- A electron
- B proton
- C neutron
- D hydronium ion

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15 **A conjugate acid base pair differs by**

A one electron

B one neutron

C one proton

D one molecule

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16 **A strong acid dissociates**

A partly

B not at all

C only on heating

D completely

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17 **A weak acid dissociates**

A partly

B completely

C not at all

D only on cooling

Understand It with Pulse | Flag a mistake

18 **The pH scale is logarithmic because pH equals negative log of hydrogen ion**

A mass

B concentration

C volume

D temperature

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19 **A buffer resists changes in**

A temperature

B pressure

C pH

D volume

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20 **A buffer contains a weak acid and its**

A strong acid

B strong base

C salt only

D conjugate base

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21 **At the equivalence point of a strong acid strong base titration the pH is about**

- A 7
- B 1
- C 14
- D 3

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22 **An indicator changes colour over a narrow pH**

- A temperature
- B range
- C volume
- D mass

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23 **Hydrochloric acid is an example of a**

A weak acid

B strong base

C strong acid

D weak base

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24 **Ammonia in water acts as a**

A strong acid

B strong base

C neutral salt

D weak base

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25 **Neutralisation of an acid and a base produces a salt and**

A water

B oxygen

C hydrogen

D carbon dioxide

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ANSWER KEY

1.	3	**10.**	1	**19.**	C
2.	5	**11.**	4	**20.**	D
3.	0.01	**12.**	20	**21.**	A
4.	0.0001	**13.**	B	**22.**	B
5.	5	**14.**	B	**23.**	C
6.	11	**15.**	C	**24.**	D
7.	0.1	**16.**	D	**25.**	A
8.	2	**17.**	A		
9.	5	**18.**	B		

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