BRITISH COLUMBIA CHEMISTRY 11 (MCH--11) · UNIT D · 25 QUESTIONS

# Solution Chemistry and Organic Chemistry — 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 contains 1 mole of solute in 2 litres of solution. Its concentration, in moles per litre, is ____**



ANSWER

Understand It with Pulse | Flag a mistake

2 **A solution contains 2 moles of solute in 0.5 litre of solution. Its concentration, in moles per litre, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A solution has concentration 2 moles per litre. The amount of solute in 0.25 litre of it, in moles, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Sodium chloride has molar mass 58.5 g per mole. The mass needed to make 0.5 litre of a 2 mole per litre solution, in grams, is ____**



ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A solution is diluted from 100 mL at 6 moles per litre to a final volume of 600 mL. The final concentration, in moles per litre, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **To make 500 mL of a 0.2 mole per litre solution from a 2 mole per litre stock solution, the volume of stock needed, in mL, is ____**

ANSWER

Understand It with Pulse | Flag a mistake

**7** **A saturated solution is one that contains**



A no dissolved solute at all

B more solute than water

C the maximum amount of dissolved solute at that temperature

D only solid solute

Understand It with Pulse | Flag a mistake

**8** **An unsaturated solution is one that**

A has solid solute sitting on the bottom

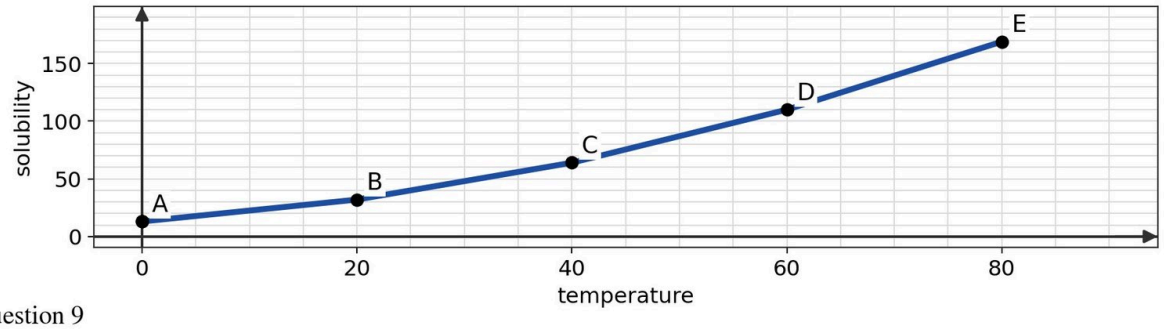
B cannot dissolve any solute

C can still dissolve more solute at that temperature

D contains no solvent

Understand It with Pulse | Flag a mistake

**9** **The graph shows the solubility of potassium nitrate in water at different temperatures. The solubility at 60 degrees, in the graph units, is _____**




Question 9

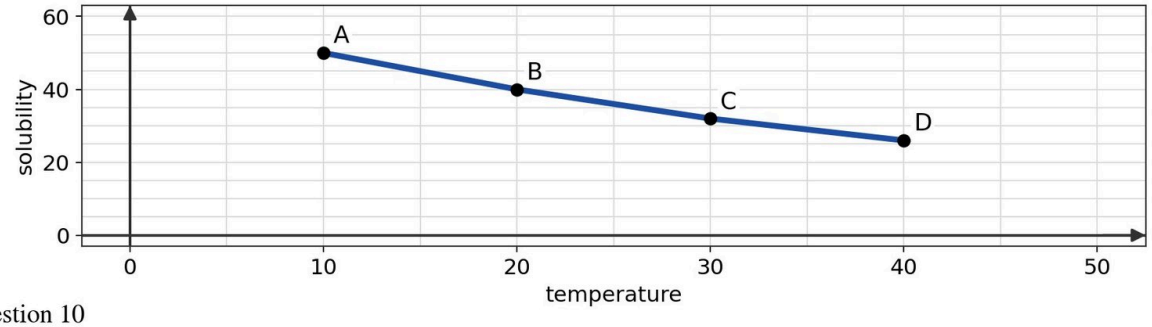
The graph shows the solubility of potassium nitrate in water at different temperatures. The solubility at 60 degrees, in the graph units, is ____

ANSWER _____

Understand It with Pulse | Flag a mistake

10

## The graph shows how the solubility of a gas in water changes with temperature. As temperature rises, the solubility of the gas




Question 10

The graph shows how the solubility of a gas in water changes with temperature. As temperature rises, the solubility of the gas

A) increases

B) decreases

C) stays the same

D) falls to zero at once

A increases

B decreases

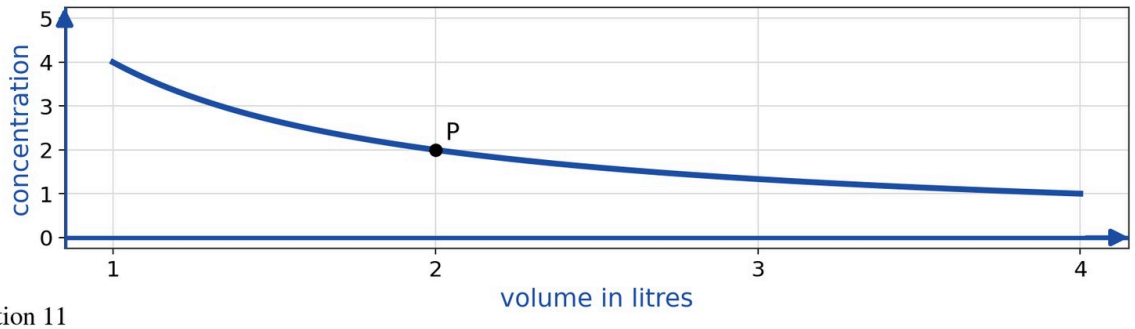
C stays the same

D falls to zero at once

Understand It with Pulse

Flag a mistake

**11** **The graph shows concentration against volume for a diluted solution. At a volume of 2 litres, the concentration, in moles per litre, is _____**




Question 11

The graph shows concentration against volume for a diluted solution. At a volume of 2 litres, the concentration, in moles per litre, is ____

ANSWER

Understand It with Pulse | Flag a mistake

**12** **Methane is a hydrocarbon with formula**

A $CH_4$

B $C_2H_6$

C $CH_3OH$

D $CO_2$

Understand It with Pulse | Flag a mistake

13 **Propane is a hydrocarbon with formula**



A $C_3H_6$

B $C_2H_4$

C $C_4H_{10}$

D $C_3H_8$

Understand It with Pulse | Flag a mistake

**14** **Alkanes have the general formula**

- A $C_nH_{2n}$
- B $C_nH_{2n-2}$
- C $C_nH_{2n+2}$
- D $C_nH_n$

Understand It with Pulse | Flag a mistake

**15** **Ethene, $C_2H_4$, is an example of an**

- A alkane
- B alkene
- C alkyne
- D alcohol

Understand It with Pulse | Flag a mistake

16 **An organic compound containing the hydroxyl group, OH, is an**

A alkane

B alkene

C alcohol

D alkyne

Understand It with Pulse | Flag a mistake

17 **An organic compound containing the carboxyl group, COOH, is a**

A ketone

B alkane

C ester

D carboxylic acid

Understand It with Pulse | Flag a mistake

18 **A two carbon alcohol with a hydroxyl group is named**

A methanol

B ethanol

C ethane

D ethene

Understand It with Pulse | Flag a mistake

19 **A three carbon alkane is named**

A propane

B propene

C butane

D pentane

Understand It with Pulse | Flag a mistake

20

## A four carbon alkane is named

A methane

B ethane

C butane

D propane

Understand It with Pulse

Flag a mistake

21 **In the lab, eye protection should be worn**



A only when glass is broken

B whenever chemicals are handled

C only at the end of the lab

D only when water is used

Understand It with Pulse | Flag a mistake

**22** **When diluting a concentrated acid, the safe practice is**



A to add water to acid quickly

B to add acid to water, slowly and with stirring

C to pour acid down the sink

D to heat the acid first

Understand It with Pulse | Flag a mistake

23 **Broken glass in the lab should be put in**

A the sharps container

B the regular garbage bin

C the sink

D a chemical waste bottle

Understand It with Pulse | Flag a mistake

24 **Chemicals in the lab should never be**

A labelled before use

B tasted to identify them

C stored in closed containers

D measured with clean equipment

Understand It with Pulse | Flag a mistake

25 **A hydrocarbon is a compound made only of**

A carbon and oxygen

B carbon and hydrogen

C hydrogen and oxygen

D carbon and nitrogen

Understand It with Pulse | Flag a mistake

# ANSWER KEY

1. 0.5
2. 4
3. 0.5
4. 58.5
5. 1
6. 50
7. C
8. C
9. 110
10. B
11. 2
12. A
13. D
14. C
15. B
16. C
17. D
18. B
19. A
20. C
21. B
22. B
23. A
24. B
25. B

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