ENGLAND GCSE COMBINED SCIENCE EDEXCEL HIGHER · UNIT 11 · 25 QUESTIONS

States of Matter and Mixtures — 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 so it can be fixed.

1 **An ice cream cone is put in a freezer. What happens to the liquid?**

- **A** it freezes
- **B** it boils
- **C** it evaporates
- **D** it condenses

Understand It with Pulse | Flag a mistake

2 **A swimming pool holds water. Why does a person float in the pool?**

A they are made of air

B they are heavier than water and sink

C the water pushes them down

D their density is close to water

Understand It with Pulse | Flag a mistake

3 **Paintbrushes apply paint to a wall. What is the paint made of?**

A a mixture of substances

B a single compound, nothing else

C pure water with nothing in it

D a single element, nothing else

Understand It with Pulse | Flag a mistake

4 **Glass marbles are shaken in a tray. What does this model?**

A particles freezing into place

B particles disappearing completely

C particles gaining energy

D particles bonding together

Understand It with Pulse | Flag a mistake

5 **A hot air balloon is filled with hot air. Why does it rise?**

A hot air is less dense

B hot air has no mass

C hot air is colder

D hot air is heavier than cold air

Understand It with Pulse | Flag a mistake

6 **Lemons taste sour. What does sour taste show?**

- A a metal is present
- B an alkali is present
- C a salt is present
- D an acid is present

Understand It with Pulse | Flag a mistake

7 **In which state do particles move most freely?**

- A gas
- B liquid
- C solid
- D plasma

Understand It with Pulse | Flag a mistake

8 **How many atoms of hydrogen are there in one molecule of water?**

A 1

B 4

C 2

D 3

Understand It with Pulse | Flag a mistake

9 **In chromatography, what is the stationary phase?**

A the paper

B the ruler

C the spots

D the solvent

Understand It with Pulse | Flag a mistake

10 **Which gas is given off when an acid reacts with a carbonate?**

A carbon dioxide

B chlorine gas from the salt

C hydrogen gas from the acid

D oxygen gas from the air

Understand It with Pulse | Flag a mistake

11 **What does an Rf value of 0 mean?**

A the spot dissolved completely

B the spot did not move

C the spot moved with the solvent

D the solvent did not move at all

Understand It with Pulse | Flag a mistake

12 **In a chromatogram, a spot moves 4 cm and the solvent moves 12 cm. What is the Rf value?**

- A 0.33
- B 0.67
- C 0.48
- D 0.43

Understand It with Pulse | Flag a mistake

13 **How do you test for carbon dioxide gas?**

- A it turns limewater cloudy
- B it turns litmus blue
- C it burns with a pop
- D it relights a glowing splint

Understand It with Pulse | Flag a mistake

14 **A cup of coffee is hot. How is energy transferred to the air?**

- A by condensation on the cold cup
- B by conduction and convection
- C by radiation only, from the surface
- D by evaporation only, from the top

Understand It with Pulse | Flag a mistake

15 **A sample containing lithium is put in a flame. What colour is the flame?**

- A crimson
- B bright yellow
- C pale lilac
- D orange-red flame

Understand It with Pulse | Flag a mistake

16 **In which state are the particles closest together?**

A plasma

B liquid

C solid

D gas

Understand It with Pulse | Flag a mistake

17 **How many atoms of hydrogen are there in one molecule of ammonia?**

A 3

B 2

C 4

D 5

Understand It with Pulse | Flag a mistake

18 **What is the test for oxygen?**

A a lighted splint pops

B bromine water turns colourless

C a glowing splint relights

D limewater turns cloudy

Understand It with Pulse | Flag a mistake

19 **Why do different dyes have different Rf values?**

A they dissolve differently in the solvent

B they have the same solubility in the solvent

C they move at the same speed

D they are all the same colour

Understand It with Pulse | Flag a mistake

20 **In a chromatogram, a spot moves 6 cm and the solvent moves 8 cm. What is the Rf value?**

- A 0.9
- B 1.5
- C 0.75
- D 0.85

Understand It with Pulse | Flag a mistake

21 **A sample containing copper is put in a flame. What colour is the flame?**

- A crimson red
- B bright yellow
- C pale lilac
- D green

Understand It with Pulse | Flag a mistake

22 **In which state do particles vibrate in fixed positions?**

A gas

B plasma

C solid

D liquid

Understand It with Pulse | Flag a mistake

23 **How many atoms of hydrogen are there in one molecule of methane?**

A 4

B 3

C 5

D 6

Understand It with Pulse | Flag a mistake

24 **What is the test for chlorine?**

A damp litmus paper is bleached

B limewater turns cloudy in the gas

C a glowing splint relights brightly

D a lighted splint pops with a squeak

Understand It with Pulse | Flag a mistake

25 **In a chromatogram, a spot moves 2 cm and the solvent moves 10 cm. What is the Rf value?**

A 0.2

B 0.35

C 0.3

D 0.4

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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