ENGLAND GCSE COMBINED SCIENCE AQA SYNERGY FOUNDATION · UNIT 5 · 25 QUESTIONS

Building Blocks for Understanding — 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 **Lemons contain citric acid. What do acids make with metals?**

- **A** water only, nothing else
- **B** a salt and water, never hydrogen
- **C** a salt and oxygen gas
- **D** a salt and hydrogen

Understand It with Pulse | Flag a mistake

2 **An ice cream cone melts in the Sun. What is happening to the particles in the ice cream?**

- A they stop moving
- B they gain energy and move more
- C they lose energy and slow down a lot
- D they get smaller

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3 **A thermometer shows a patient's temperature is 39 degrees Celsius. Is this above or below normal body temperature?**

- A below normal
- B exactly normal
- C above normal
- D impossible to tell

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4 **Paintbrushes are used with paint. What is paint an example of?**

A a compound

B an element

C a pure substance

D a formulation

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5 **A chocolate cake is baked. Is baking a chemical change?**

A sometimes

B never

C yes

D no

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6

Silver coins are made of the element silver. What is the chemical symbol for silver?

A Sv

B Ag

C S

D Si

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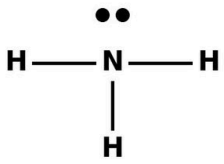
Flag a mistake

7 **The diagram shows an ammonia molecule. How many covalent bonds does the nitrogen atom form?**



A 3

B 4

C 1

D 2

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8 **How many moles are there in 20 g of a substance with a relative formula mass of 20?**

- A 1
- B 0.5
- C 2
- D 3

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9 **Which of these is endothermic?**

- A neutralisation
- B photosynthesis
- C respiration
- D burning a fuel

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10 What is the relative formula mass of methane, CH_4?

- A 16
- B 12
- C 14
- D 20

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11 How many electrons are in the outer shell of a Group 7 element?

- A 7
- B 2
- C 8
- D 1

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12 What is the pH of a neutral solution?

- A 1
- B 7
- C 14
- D 0

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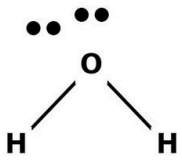
13 The diagram shows a water molecule. How many lone pairs of electrons does the oxygen atom have?



- A 4
- B 2
- C 3
- D 1

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14 **How does reactivity change down Group 7?**

A it increases

B it decreases

C it stays the same

D it stops

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15 **What is the formula of methane?**

A CH_4

B CH_2

C CH_3

D C_2H_4

Understand It with Pulse | Flag a mistake

16 **How many moles are there in 24 g of a substance with a relative formula mass of 20?**

- A 3.6
- B 2.4
- C 0.6
- D 1.2

Understand It with Pulse | Flag a mistake

17 **Which particle has a positive charge?**

- A the electron
- B the neutron
- C the nucleus
- D the proton

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18 **What happens to the temperature during an exothermic reaction?**

- A it falls then rises
- B it rises
- C it falls
- D it stays the same

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19 **What is the relative formula mass of sodium chloride, NaCl?**

- A 23
- B 58.5
- C 81.5
- D 35.5

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20 **What is the electronic structure of oxygen (atomic number 8)?**

- **A** 2,7
- **B** 2,8
- **C** 2,4
- **D** 2,6

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21 **In a reaction, 10 g of A reacts with 6 g of B. What mass of product is made?**

- **A** 6 g
- **B** 16 g
- **C** 4 g
- **D** 10 g

Understand It with Pulse | Flag a mistake

22 **What is a period in the periodic table?**

- A a block
- B a row
- C a group
- D a column

Understand It with Pulse | Flag a mistake

23 **What is the formula of water?**

- A H_2O_2
- B HO
- C H_2O_3
- D H_2O

Understand It with Pulse | Flag a mistake

24 **How many moles are there in 40 g of a substance with a relative formula mass of 40?**

A 0.5

B 2

C 3

D 1

Understand It with Pulse | Flag a mistake

25 **What happens to the temperature during an endothermic reaction?**

A it rises then falls

B it stays the same

C it falls

D it rises

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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