ENGLAND GCSE PHYSICS OCR GATEWAY HIGHER · UNIT 5 · 25 QUESTIONS

Waves in Matter — 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 thermometer is placed in hot water. What happens to the liquid inside the thermometer?**

- A it contracts
- B it evaporates
- C it expands
- D it freezes

Understand It with Pulse | Flag a mistake

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

- A particles disappearing completely
- B particles bonding together
- C particles freezing into place
- D particles gaining energy

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3 **A wristwatch is used to time a race. What is speed calculated from?**

- A mass and time together
- B distance and time
- C distance only, not time
- D time only, not distance

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4 **A kite flies in the wind. Which force holds the kite up?**

- A lift
- B drag
- C thrust
- D weight

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5 **Hardcover books are stacked on a table. What force pulls them down?**

A gravity

B air resistance

C friction

D tension

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6 **A calculator uses a battery. What energy is stored in the battery?**

A light energy from the Sun

B kinetic energy of motion

C thermal energy from heat

D chemical energy

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7 **Which type of radiation is used to cook food?**

A X-rays

B microwaves

C ultraviolet

D gamma rays

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8 **A wave has a frequency of 4 Hz and a wavelength of 5 m. What is its speed?**

A 20 m/s

B 10 m/s

C 40 m/s

D 9 m/s

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9 **What is the normal in a refraction question?**

- A a line along the surface
- B the ray of light itself, in the glass
- C at right angles to the surface
- D the edge of the block

Understand It with Pulse | Flag a mistake

10 **Which electromagnetic wave has the longest wavelength?**

- A ultraviolet
- B X-rays
- C radio waves
- D gamma rays, which are the shortest

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11 **A Ferris wheel turns slowly. A person on the wheel moves in a circle. What is the person's speed like?**

A increasing speed

B zero speed

C decreasing speed

D steady speed

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12 **What does sound need to travel through?**

A a medium

B air only

C water only

D a vacuum

Understand It with Pulse | Flag a mistake

13 **A passenger aeroplane cruises. Which force opposes its motion?**

A lift

B drag

C thrust

D weight

Understand It with Pulse | Flag a mistake

14 **A set square is placed on a mirror. What happens to light hitting the mirror?**

A it refracts

B it passes through

C it reflects

D it is absorbed

Understand It with Pulse | Flag a mistake

15 **What does the frequency of a sound wave decide?**

A its colour

B its pitch

C its loudness

D its speed in air

Understand It with Pulse | Flag a mistake

16 **Which lens is used in a magnifying glass?**

A a flat mirror

B a concave lens

C a convex lens

D a prism

Understand It with Pulse | Flag a mistake

17 **A guitar is plugged into an amplifier. What flows through the cable?**

- A electric current
- B water
- C sound waves travelling along it
- D light

Understand It with Pulse | Flag a mistake

18 **Silver coins are made of a metal. Which property do metals have?**

- A they dissolve in water
- B they are brittle
- C they do not conduct electricity at all
- D they conduct electricity

Understand It with Pulse | Flag a mistake

19 **A wave has a frequency of 5 Hz and a wavelength of 5 m. What is the wave speed?**

- A 50 m/s
- B 30 m/s
- C 25 m/s
- D 12 m/s

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20 **A wave travels at 20 m/s with a wavelength of 10 m. What is its frequency?**

- A 2 Hz
- B 4 Hz
- C 1 Hz
- D 200 Hz

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21 **Which type of wave is a sound wave?**

A standing

B longitudinal

C electromagnetic

D transverse

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22 **Which of these has the highest frequency?**

A gamma rays

B infrared

C microwaves

D radio waves

Understand It with Pulse | Flag a mistake

23 **A wave has a frequency of 2 Hz and a wavelength of 5 m. What is its speed?**

- **A** 5 m/s
- **B** 7 m/s
- **C** 10 m/s
- **D** 20 m/s

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24 **What is total internal reflection used for?**

- **A** in optical fibres
- **B** heating water
- **C** making mirrors
- **D** making sound louder

Understand It with Pulse | Flag a mistake

25 **Which electromagnetic waves are used for cooking food?**

A ultraviolet

B microwaves

C X-rays

D gamma rays

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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