ENGLAND GCSE COMBINED SCIENCE EDEXCEL HIGHER · UNIT 21 · 25 QUESTIONS

Light and the Electromagnetic Spectrum — 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 **A kite is held by a string. What force does the string exert?**

- A friction
- B tension
- C gravity
- D air resistance

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

3 **A guitar string vibrates to make a sound. What type of wave is the sound wave?**

- A standing
- B longitudinal
- C electromagnetic
- D transverse

Understand It with Pulse | Flag a mistake

4 **A set square is used to measure an angle of reflection. What is the angle of incidence equal to?**

A the angle of reflection

B zero

C half the angle of reflection

D double the angle of reflection

Understand It with Pulse | Flag a mistake

5 **A Ferris wheel is at the top. What is the person's height like?**

A at its smallest

B at its greatest

C unchanged

D at zero

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

7 **An object 2 cm tall forms an image 6 cm tall. Calculate the magnification.**

- A 4
- B 6
- C 2
- D 3

Understand It with Pulse | Flag a mistake

8 **Which wave has the longest wavelength in the electromagnetic spectrum?**

A radio waves

B X-rays, which have a short wavelength

C gamma rays, which have the shortest wavelength

D ultraviolet, which has a short wavelength

Understand It with Pulse | Flag a mistake

9 **What are microwaves used for?**

A seeing bones inside the body

B taking photographs in the dark

C seeing through walls in buildings

D cooking food

Understand It with Pulse | Flag a mistake

10 **What does a convex lens do to parallel rays of light?**

A it stops them

B it reflects them back

C they meet at a focus

D it spreads them apart

Understand It with Pulse | Flag a mistake

11 **What does a concave lens do to light?**

A it brings light to a focus

B it absorbs light

C it reflects light

D it spreads light out

Understand It with Pulse | Flag a mistake

12 **Which type of radiation can cause sunburn?**

A microwaves

B ultraviolet

C infrared

D radio waves

Understand It with Pulse | Flag a mistake

13 **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

14 **What happens to the intensity of radiation from a black body as the temperature rises?**

A it only rises in the red

B it increases everywhere

C it falls at all wavelengths

D it stays the same

Understand It with Pulse | Flag a mistake

15 **Which electromagnetic waves are used to take pictures of bones?**

A radio waves

B visible light

C X-rays

D infrared

Understand It with Pulse | Flag a mistake

16 **An object 2 cm tall forms an image 4 cm tall. Calculate the magnification.**

A 4

B 2

C 1

D 3

Understand It with Pulse | Flag a mistake

17 **Which waves can the human eye see?**

A microwaves, which heat food

B infrared, which is felt as heat

C ultraviolet, which causes sunburn

D visible light

Understand It with Pulse | Flag a mistake

18 **What are ultraviolet waves used for?**

A carrying radio signals long distances

B fluorescent lamps

C seeing inside the body in hospitals

D cooking food in a microwave oven

Understand It with Pulse | Flag a mistake

19 **What does a concave lens do to parallel rays of light?**

A it spreads them apart

B it reflects them back

C it stops them

D it brings them together

Understand It with Pulse | Flag a mistake

20 **What is black body radiation?**

A radiation from black objects only

B radiation emitted by all objects

C radiation with no energy

D radiation absorbed by black objects

Understand It with Pulse | Flag a mistake

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

A microwaves

B gamma rays

C X-rays

D ultraviolet

Understand It with Pulse | Flag a mistake

22 **What happens when light passes from air into glass?**

A it slows and bends

B it speeds up and bends

C it reflects back only

D it stops

Understand It with Pulse | Flag a mistake

23 **Why does a black body at room temperature not glow?**

A it absorbs all its own radiation

B it gives out no radiation at all

C it is too small to glow

D it gives out infrared

Understand It with Pulse | Flag a mistake

24 **What do all electromagnetic waves travel at in a vacuum?**

- A the speed of sound
- B zero speed
- C different speeds
- D the speed of light

Understand It with Pulse | Flag a mistake

25 **An object 2 cm tall forms an image 8 cm tall. Calculate the magnification.**

- A 8
- B 4
- C 5
- D 3

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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