ENGLAND GCSE COMBINED SCIENCE EDEXCEL FOUNDATION · 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 guitar string is tightened. What happens to the pitch?**

- **A** it disappears
- **B** it rises
- **C** it falls
- **D** it stays the same

Understand It with Pulse | Flag a mistake

2 **A wristwatch ticks every second. How many ticks in a minute?**

- A 30
- B 60
- C 100
- D 12

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

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

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

A unchanged

B at its greatest

C at zero

D at its smallest

Understand It with Pulse | Flag a mistake

5 **A kite is held by a string. What force does the string exert?**

A friction

B gravity

C air resistance

D tension

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

- A it is absorbed
- B it reflects
- C it passes through
- D it refracts

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7 **Which type of radiation is used in a TV remote control?**

- A gamma rays
- B ultraviolet
- C infrared
- D X-rays

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8 **Which electromagnetic wave has the highest frequency?**

A radio waves, which are the lowest

B microwaves

C gamma rays

D infrared

Understand It with Pulse | Flag a mistake

9 **What happens to frequency as wavelength increases?**

A it decreases

B it increases as well, in step with wavelength

C it doubles every time wavelength doubles

D it stays the same for every wave

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10 **Light travels from glass into air at a steep angle and does not leave the glass. What is this called?**

- A absorption
- B total internal reflection
- C refraction, bending into the air
- D diffraction

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

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

Understand It with Pulse | Flag a mistake

12 **What are X-rays used for?**

A transmitting television signals

B heating food in a kitchen

C cooking food in a microwave oven

D seeing bones

Understand It with Pulse | Flag a mistake

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

A 3

B 6

C 2

D 4

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

A a convex lens

B a flat mirror

C a prism

D a concave lens

Understand It with Pulse | Flag a mistake

15 **Which type of radiation is used to take images of bones?**

A microwaves

B infrared

C X-rays

D ultraviolet

Understand It with Pulse | Flag a mistake

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

A microwaves

B ultraviolet

C X-rays

D gamma rays

Understand It with Pulse | Flag a mistake

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

A visible light

B infrared, which is felt as heat

C ultraviolet, which causes sunburn

D microwaves, which heat food

Understand It with Pulse | Flag a mistake

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

A a line along the surface

B the edge of the block

C at right angles to the surface

D the ray of light itself, in the glass

Understand It with Pulse | Flag a mistake

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

A ultraviolet

B gamma rays, which are the shortest

C radio waves

D X-rays

Understand It with Pulse | Flag a mistake

20 **An object 4 cm tall forms an image 12 cm tall. Calculate the magnification.**

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

Understand It with Pulse | Flag a mistake

21 **What happens to the focal length if a convex lens is made more curved?**

- A it becomes zero
- B it gets shorter
- C it gets longer
- D it stays the same

Understand It with Pulse | Flag a mistake

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

A radio waves

B microwaves

C infrared

D gamma rays

Understand It with Pulse | Flag a mistake

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

A making sound louder

B making mirrors

C in optical fibres

D heating water

Understand It with Pulse | Flag a mistake

24 **An object 4 cm tall forms an image 20 cm tall. Calculate the magnification.**

- A 6
- B 5
- C 10
- D 4

Understand It with Pulse | Flag a mistake

25 **What is the focal length of a lens?**

- A the distance to the object
- B the width of the lens
- C the thickness of the lens
- D lens to focus distance

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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