ENGLAND GCSE PHYSICS EDEXCEL FOUNDATION · UNIT 5 · 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 to let Brett know so he can fix it.

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

- A zero
- B the angle of reflection
- C half the angle of reflection
- D double the angle of reflection

Understand It with Pulse | Flag a mistake

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

- A at its smallest
- B at its greatest
- C at zero
- D unchanged

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

- A radio waves, which are the lowest
- B infrared
- C microwaves
- D gamma rays

Understand It with Pulse | Flag a mistake

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

A X-rays

B microwaves

C ultraviolet

D gamma rays

Understand It with Pulse | Flag a mistake

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

A microwaves, which heat food

B infrared, which is felt as heat

C visible light

D ultraviolet, which causes sunburn

Understand It with Pulse | Flag a mistake

12 **What are infrared waves used for?**

A transmitting television signals

B cooking food in a microwave oven

C taking X-ray photographs of bones

D remote controls

Understand It with Pulse | Flag a mistake

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

A 3

B 2

C 6

D 4

Understand It with Pulse | Flag a mistake

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

A infrared

B radio waves

C ultraviolet

D microwaves

Understand It with Pulse | Flag a mistake

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

A it stays the same

B it gets longer

C it becomes zero

D it gets shorter

Understand It with Pulse | Flag a mistake

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

A at right angles to the surface

B the ray of light itself, in the glass

C the edge of the block

D a line along the surface

Understand It with Pulse | Flag a mistake

17 **Which part of the electromagnetic spectrum can our eyes detect?**

A microwaves

B ultraviolet

C visible light

D infrared, which is heat

Understand It with Pulse | Flag a mistake

18 **What is the speed of electromagnetic waves in a vacuum?**

A 3 million metres per second

B 300 million metres per second

C 300 thousand metres per second

D 30 billion metres per second

Understand It with Pulse | Flag a mistake

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

A transmitting television signals

B cooking food in a microwave oven

C seeing bones

D heating food in a kitchen

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

21 **What do all electromagnetic waves travel at?**

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

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 stops

D it reflects back only

Understand It with Pulse | Flag a mistake

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

A ultraviolet

B radio waves

C gamma rays, which are the shortest

D X-rays

Understand It with Pulse | Flag a mistake

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

A gamma rays, which have the shortest wavelength

B radio waves

C X-rays, which have a short wavelength

D ultraviolet, which has a short wavelength

Understand It with Pulse | Flag a mistake

25 **What are gamma rays used for?**

A transmitting radio signals

B cooking food in a microwave oven

C seeing bones inside the body

D treating cancer

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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