ENGLAND GCSE COMBINED SCIENCE AQA SYNERGY HIGHER · UNIT 6 · 25 QUESTIONS

Interactions over Small and Large Distances — 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 yellow school bus carries children to school. Which blood vessel carries blood away from the heart, like a bus leaving the station?**

- A an artery
- B a vein
- C a capillary
- D a ventricle

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

4 **A kite rises higher. What happens to the wind speed usually?**

A it decreases

B it stays the same

C it becomes zero

D it increases

Understand It with Pulse | Flag a mistake

5 **A passenger train travels at a steady speed. What is its acceleration?**

A 1 m/s^2

B 9.8 m/s^2

C 0 m/s^2

D 10 m/s^2

Understand It with Pulse | Flag a mistake

6 **A tennis ball is hit across a court. Which force slows the ball down in the air?**

- A air resistance
- B gravity
- C the hit
- D friction with the ground

Understand It with Pulse | Flag a mistake

7 **What is the unit of force?**

- A the newton
- B the watt
- C the joule
- D the kilogram

Understand It with Pulse | Flag a mistake

8 **What happens when two north poles are brought together?**

- A nothing happens
- B they repel
- C they neutralise
- D they attract

Understand It with Pulse | Flag a mistake

9 **How can an electromagnet be made stronger?**

- A a smaller current
- B a wooden core
- C more turns on the coil
- D fewer turns on the coil

Understand It with Pulse | Flag a mistake

10 **A set square measures angles. What is a right angle?**

- A 180 degrees
- B 90 degrees
- C 360 degrees
- D 45 degrees

Understand It with Pulse | Flag a mistake

11 **An object travels 400 m in 50 seconds. What is its speed?**

- A 4 m/s
- B 20000 m/s
- C 16 m/s
- D 8 m/s

Understand It with Pulse | Flag a mistake

12 **Two 4 ohm resistors are in series. What is the total resistance?**

- A 4 ohms
- B 16 ohms
- C 8 ohms
- D 2 ohms

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

14 **What force is needed to accelerate a 2 kg object at 3 m/s squared?**

- A 3 N
- B 12 N
- C 6 N
- D 11 N

Understand It with Pulse | Flag a mistake

15 **A resistor has a potential difference of 6 V across it and a resistance of 2 ohms. What is the current?**

- A 3 A
- B 1.5 A
- C 6 A
- D 12 A

Understand It with Pulse | Flag a mistake

16 **Which of these is a scalar?**

A acceleration

B speed

C force

D velocity

Understand It with Pulse | Flag a mistake

17 **A rocket launches straight up. Which force acts downwards on the rocket?**

A thrust

B gravity

C air resistance

D lift

Understand It with Pulse | Flag a mistake

18 **Which of these travels as a transverse wave?**

- A sound
- B light
- C a water wave in a pond
- D a seismic P wave

Understand It with Pulse | Flag a mistake

19 **What is the wavelength of a wave?**

- A the height of the wave
- B the time for one wave
- C the distance between two peaks
- D the number of waves per second

Understand It with Pulse | Flag a mistake

20 What is the momentum of a 4 kg object moving at 3 m/s?

- A 12 kg m/s
- B 7 kg m/s
- C 6 kg m/s
- D 24 kg m/s

Understand It with Pulse | Flag a mistake

21 An object travels 400 m in 40 seconds. What is its speed?

- A 16000 m/s
- B 20 m/s
- C 10 m/s
- D 5 m/s

Understand It with Pulse | Flag a mistake

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

A radio waves

B infrared

C ultraviolet

D microwaves

Understand It with Pulse | Flag a mistake

23 **What force is needed to accelerate a 4 kg object at 2 m/s squared?**

A 8 N

B 4 N

C 16 N

D 13 N

Understand It with Pulse | Flag a mistake

24 **What happens when two objects with opposite charges are near each other?**

A they neutralise

B they repel

C they attract

D nothing happens

Understand It with Pulse | Flag a mistake

25 **What happens when light hits a mirror?**

A it refracts

B it is absorbed

C it reflects

D it passes through

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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