ENGLAND GCSE COMBINED SCIENCE AQA SYNERGY FOUNDATION · UNIT 7 · 25 QUESTIONS

Movement and Interactions — 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 car goes around a roundabout at a steady speed. Is the car accelerating?**

- A yes, its direction is changing
- B yes, its speed is increasing all the time
- C no, its speed is steady
- D no, it is not moving

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2 **A passenger aeroplane takes off. Which force lifts it up?**

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

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

- A gravity
- B lift
- C thrust
- D air resistance

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

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

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5 **A basketball bounces. What type of energy is stored when the ball squashes?**

A thermal

B elastic potential

C kinetic

D gravitational potential

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6 **A bicycle has brakes. What do the brakes do to kinetic energy?**

A turn it into light and sound

B store it

C transfer it to heat

D destroy it

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

- A increasing speed all the time, getting faster
- B steady speed, changing direction
- C zero speed
- D decreasing speed

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8 **Which factor increases braking distance?**

- A being distracted
- B drinking alcohol
- C being tired
- D a wet road

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9 **A device works at 6 V with a current of 3 A. What is its power?**

- A 9 W
- B 28 W
- C 36 W
- D 18 W

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10 **What is a transformer used for?**

- A changing the voltage
- B changing the current only
- C making electricity
- D storing electricity

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11 **A red race car travels at a steady speed. What is the resultant force on the car?**

- A 1000 N
- B 100 N
- C 0 N
- D 500 N

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12 **What is an echo?**

- A a refracted sound wave
- B a reflected sound wave
- C a loud sound
- D a high pitched sound

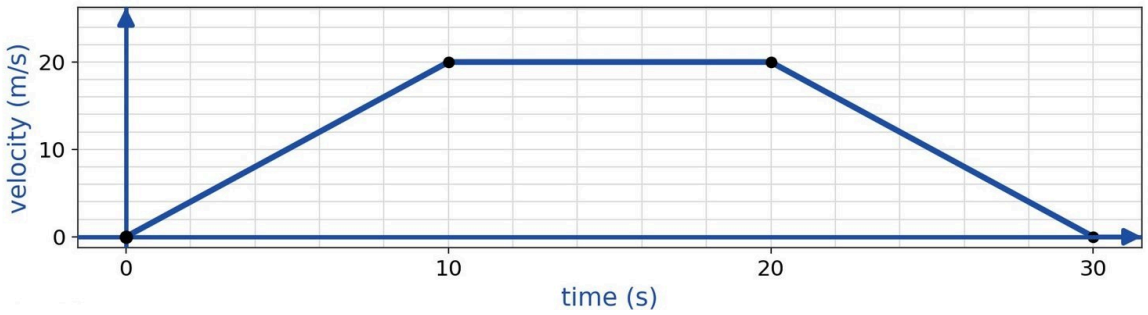
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13 **A 10 kg object moves at 5 m/s. What is its kinetic energy?**

- A 62.5 J
- B 125 J
- C 135 J
- D 250 J

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14 **The graph shows a velocity-time graph. What is the acceleration in the first 10 seconds?**



A 20 m/s²

B 0 m/s²

C 2 m/s²

D 10 m/s²

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15 **A 5 kg object is lifted 3 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 15 J
- B 150 J
- C 300 J
- D 75 J

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16 **What is the unit of energy?**

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

Understand It with Pulse | Flag a mistake

17 **A device transfers 200 J of energy in 20 seconds. What is its power?**

- A 5 W
- B 10 W
- C 4000 W
- D 20 W

Understand It with Pulse | Flag a mistake

18 **An object speeds up from 10 m/s to 40 m/s in 5 seconds. What is its acceleration?**

- A 30 m/s^2
- B 3 m/s^2
- C 12 m/s^2
- D 6 m/s^2

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19 **What is the law of reflection?**

A angle of reflection is always 90 degrees

B angle of incidence is double the angle of reflection

C angle of incidence equals angle of reflection

D light always reflects straight back

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20 **A device works at 230 V with a current of 3 A. What is its power?**

A 1380 W

B 690 W

C 700 W

D 345 W

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

A a medium

B water only

C a vacuum

D air only

Understand It with Pulse | Flag a mistake

22 **A 5 kg object moves at 5 m/s. What is its kinetic energy?**

A 31.25 J

B 72.5 J

C 62.5 J

D 125 J

Understand It with Pulse | Flag a mistake

23 **In Fleming's left-hand rule, what does the thumb show?**

- A the current
- B the field
- C the motion
- D the force

Understand It with Pulse | Flag a mistake

24 **A 10 kg object is lifted 2 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 400 J
- B 20 J
- C 100 J
- D 200 J

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25

How is work done calculated?

A energy divided by time

B force divided by distance

C mass times speed

D force times distance

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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