ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY HIGHER · UNIT 22 · 25 QUESTIONS

Forces — 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 wristwatch is used to time a race. What is speed calculated from?**

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

Understand It with Pulse | Flag a mistake

2 **A bicycle is ridden uphill. Which energy store increases?**

- A kinetic energy of motion
- B gravitational potential
- C thermal energy from friction
- D elastic potential energy

Understand It with Pulse | Flag a mistake

3 **Hardcover books have mass. What is mass measured in?**

A kilograms

B watts

C joules

D newtons, the unit of force

Understand It with Pulse | Flag a mistake

4 **A ladder is climbed. Which energy store increases?**

A gravitational potential

B elastic potential energy

C thermal energy from friction

D kinetic energy of motion

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

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7 **A passenger train brakes. What force slows it down?**

A thrust

B friction

C lift

D gravity, pulling it down

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

A drag

B lift

C thrust

D weight

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9 **What is the weight of a 5 kg object on Earth? Use g = 10 N/kg.**

- **A** 5 N
- **B** 25 N
- **C** 100 N
- **D** 50 N

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

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

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11 **A car goes around a roundabout. Which force keeps it turning?**

A gravity

B air resistance

C friction

D thrust

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12 **A force of 100 N acts on an area of 10 square metres. What is the pressure?**

A 20 Pa

B 10 Pa

C 5 Pa

D 1000 Pa

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13 **A cardboard box sits on a floor. What is the force between the box and the floor?**

- A the upthrust from the floor
- B the weight of the box
- C the friction between the surfaces
- D the air pressure all around it

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14 **What is the momentum of a 5 kg object moving at 6 m/s?**

- A 11 kg m/s
- B 30 kg m/s
- C 60 kg m/s
- D 15 kg m/s

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15 **A rocket in space has no air around it. What happens to air resistance?**

A there is none

B it becomes gravity

C it stays the same

D it increases

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16 **What is braking distance?**

A the distance to the car ahead

B the distance travelled while braking

C the distance travelled while the driver reacts

D the total stopping distance

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17

An object speeds up from 10 m/s to 30 m/s in 10 seconds. What is its acceleration?

A 2 m/s²

B 1 m/s²

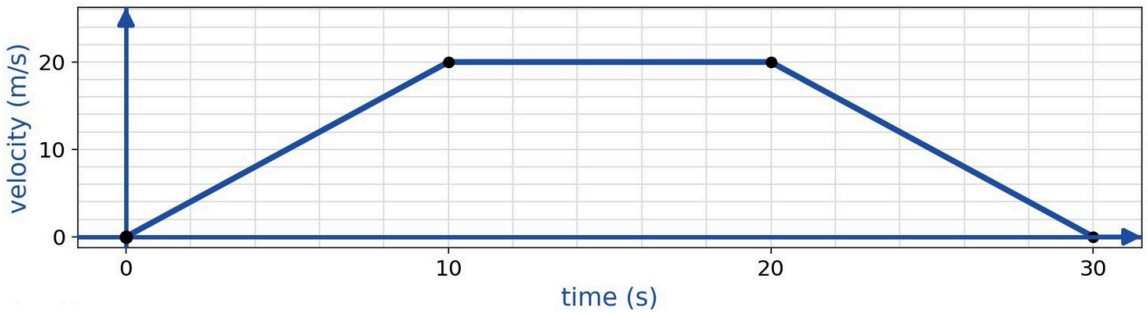
C 20 m/s²

D 4 m/s²

Understand It with Pulse

Flag a mistake

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



- **A** 0 m/s²
- **B** 2 m/s²
- **C** 20 m/s²
- **D** 10 m/s²

Understand It with Pulse | Flag a mistake

19 **An object travels 200 m in 10 seconds. What is its speed?**

A 10 m/s

B 20 m/s

C 2000 m/s

D 40 m/s

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20 **A basketball is thrown up. What happens to its speed as it rises?**

A it increases

B it decreases

C it stays the same

D it becomes zero

Understand It with Pulse | Flag a mistake

21 **What force is needed to accelerate a 5 kg object at 4 m/s squared?**

- A 25 N
- B 10 N
- C 20 N
- D 40 N

Understand It with Pulse | Flag a mistake

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

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

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23 **A yellow school bus carries children to school. Which blood vessel carries blood away from the heart, like a bus leaving the station?**

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

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24 **Which of these is a vector?**

- A speed
- B distance
- C time
- D force

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25 **What is the weight of a 50 kg object on Earth? Use g = 10 N/kg.**

A 1000 N

B 50 N

C 250 N

D 500 N

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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