ENGLAND GCSE PHYSICS EDEXCEL HIGHER · UNIT 2 · 25 QUESTIONS

Motion and 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 to let Brett know so he can fix it.

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

- A watts
- B newtons, the unit of force
- C joules
- D kilograms

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

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

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3 **A wristwatch measures time. What is the unit of time?**

- A the day
- B the hour
- C the second
- D the minute

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4 **A Ferris wheel turns. What force keeps a person moving in a circle?**

- A air resistance pushing them back
- B friction only, gripping the seat
- C centripetal force
- D gravity only, pulling them down

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5 **A passenger train carries people around the country. Which part of the blood is like the train, carrying oxygen around the body?**

A white blood cells

B plasma

C red blood cells

D platelets

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

A elastic potential energy

B kinetic energy of motion

C thermal energy from friction

D gravitational potential

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

A tension

B friction

C gravity

D air resistance

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

A speed

B distance

C time

D force

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9 **What is the momentum of a 5 kg object moving at 3 m/s?**

- A 7.5 kg m/s
- B 8 kg m/s
- C 15 kg m/s
- D 30 kg m/s

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10 **A skydiver falls and reaches terminal velocity. What is true about the forces on the skydiver?**

- A they are balanced
- B drag is bigger than weight
- C weight is bigger than drag
- D there are no forces at all

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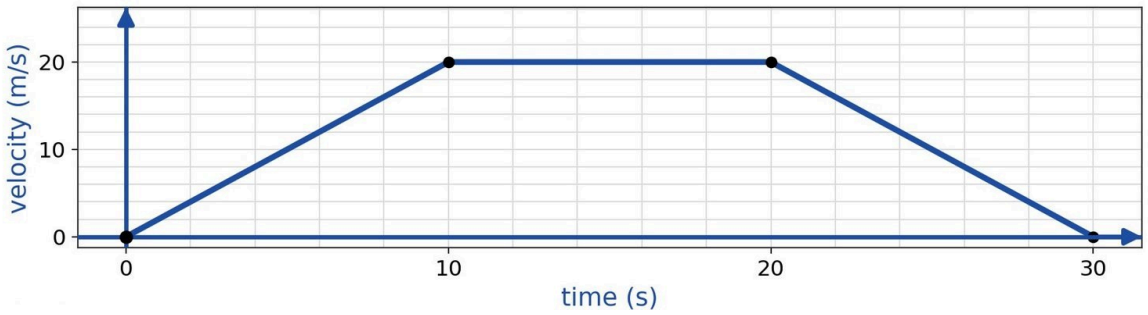
11 **The graph shows a velocity-time graph. What is the acceleration in the first 10 seconds?**



A 20 m/s²

B 0 m/s²

C 2 m/s²

D 10 m/s²

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12 **What force is needed to accelerate a 4 kg object at 3 m/s squared?**

- A 6 N
- B 12 N
- C 17 N
- D 24 N

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

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

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

A the hit

B friction with the ground

C gravity

D air resistance

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

A the joule

B the kilogram

C the watt

D the newton

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

A 30 m/s²

B 6 m/s²

C 3 m/s²

D 12 m/s²

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17 **What is the weight of a 2 kg object on Earth? Use g = 10 N/kg.**

A 20 N

B 40 N

C 2 N

D 10 N

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18 **A 2 kg trolley moves at 3 m/s. What is its momentum?**

- A 6 kg m/s
- B 3 kg m/s
- C 12 kg m/s
- D 11 kg m/s

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

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

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20 **Which factor increases thinking distance?**

A being tired

B a wet road

C worn tyres

D worn brakes

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21 **An object travels 300 m in 25 seconds. What is its speed?**

A 24 m/s

B 7500 m/s

C 12 m/s

D 6 m/s

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

A elastic potential

B thermal

C kinetic

D gravitational potential

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23 **What is the momentum of a 2 kg object moving at 6 m/s?**

A 24 kg m/s

B 6 kg m/s

C 8 kg m/s

D 12 kg m/s

Understand It with Pulse | Flag a mistake

24 **What is terminal velocity?**

A the speed when drag is zero

B the speed of sound in air

C top steady falling speed

D the speed when an object starts to fall

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

A 20 N

B 10 N

C 40 N

D 25 N

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ANSWER KEY

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

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