ENGLAND GCSE COMBINED SCIENCE EDEXCEL HIGHER · UNIT 18 · 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 so it can be fixed.

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

- A 9.8 m/s²
- B 10 m/s²
- C 0 m/s²
- D 1 m/s²

Understand It with Pulse | Flag a mistake

2 **A red race car has a large rear wing. What does the wing do?**

- A reduces grip
- B reduces drag to zero
- C increases grip
- D increases speed

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3 **A wristwatch ticks every second. How many ticks in a minute?**

- A 100
- B 60
- C 30
- D 12

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

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

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5 **A tennis ball is served fast. What is its speed like?**

- A low
- B negative
- C zero
- D high

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

- A it becomes zero
- B it stays the same
- C it increases
- D it decreases

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7 **An object speeds up from 0 m/s to 30 m/s in 5 seconds. What is its acceleration?**

A 12 m/s²

B 3 m/s²

C 6 m/s²

D 30 m/s²

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

A increasing speed

B decreasing speed

C steady speed

D zero speed

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

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

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10 **Hardcover books are stacked on a table. What force pulls them down?**

- A gravity
- B friction
- C tension
- D air resistance

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11 **What is terminal velocity?**

A the speed when an object starts to fall

B the speed when drag is zero

C top steady falling speed

D the speed of sound in air

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12 **What is stopping distance?**

A braking distance only

B thinking distance only

C thinking distance minus braking distance

D thinking distance plus braking distance

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

A 10 N

B 20 N

C 40 N

D 2 N

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

A velocity

B speed

C acceleration

D force

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

A gravity

B air resistance

C thrust

D lift

Understand It with Pulse | Flag a mistake

16 **What force is needed to accelerate a 10 kg object at 2 m/s squared?**

A 10 N

B 20 N

C 25 N

D 40 N

Understand It with Pulse | Flag a mistake

17 **A basketball is dropped. What energy store increases as it falls?**

- A thermal
- B elastic
- C kinetic
- D gravitational potential

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18 **A 10 kg trolley moves at 5 m/s. What is its momentum?**

- A 100 kg m/s
- B 55 kg m/s
- C 25 kg m/s
- D 50 kg m/s

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

A 8 m/s

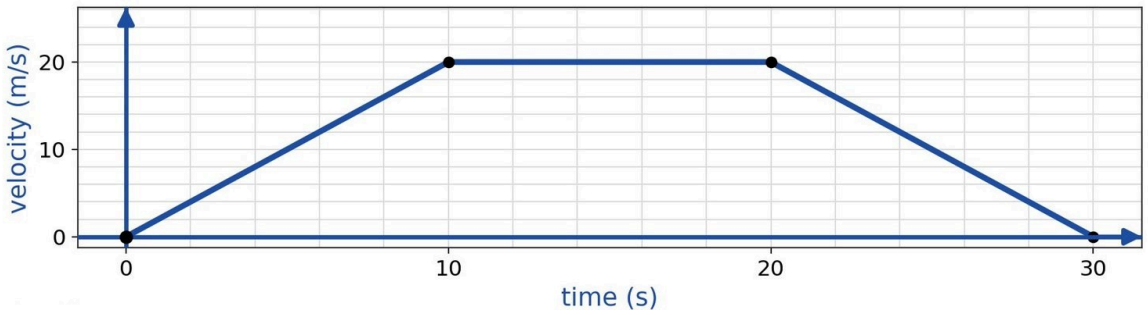
B 4 m/s

C 20000 m/s

D 16 m/s

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



A 0 m/s²

B 10 m/s²

C 20 m/s²

D 2 m/s²

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

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

Understand It with Pulse | Flag a mistake

22 **An object speeds up from 5 m/s to 35 m/s in 10 seconds. What is its acceleration?**

- A 6 m/s^2
- B 3 m/s^2
- C 30 m/s^2
- D 1.5 m/s^2

Understand It with Pulse | Flag a mistake

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

- A 12 kg m/s
- B 6 kg m/s
- C 8 kg m/s
- D 24 kg m/s

Understand It with Pulse | Flag a mistake

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

- A 500 N
- B 250 N
- C 1000 N
- D 50 N

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25 **What is a scalar quantity?**

A a quantity with size only

B a quantity with size and direction

C a quantity with direction only

D a quantity with no size

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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