ENGLAND GCSE PHYSICS OCR GATEWAY FOUNDATION · UNIT 2 · 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 to let Brett know so he can fix it.

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

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

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2 **A wooden footbridge carries people. What is the load on the bridge?**

- A the wind blowing across it
- B the wood of the bridge itself
- C the water flowing under it
- D the weight of the people

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3 **Hardcover books are dropped. What happens to their speed as they fall?**

A it stays the same

B it decreases

C it becomes zero

D it increases

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

A friction only, gripping the seat

B gravity only, pulling them down

C air resistance pushing them back

D centripetal force

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

- A store it
- B destroy it
- C turn it into light and sound
- D transfer it to heat

Understand It with Pulse | Flag a mistake

6 **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

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7 **A spring has a spring constant of 50 N/m. It is stretched by 5 cm. What is the force?**

- A 2.5 N
- B 3 N
- C 1.25 N
- D 5 N

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

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

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9 **An object travels 100 m in 20 seconds. What is its speed?**

- A 2.5 m/s
- B 5 m/s
- C 10 m/s
- D 2000 m/s

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

- A 2 N
- B 40 N
- C 20 N
- D 10 N

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11 **A force of 400 N acts on an area of 10 square metres. What is the pressure?**

- A 40 Pa
- B 80 Pa
- C 20 Pa
- D 45 Pa

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12 **A rocket is pushed up by hot gases. What is the upward force called?**

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

Understand It with Pulse | Flag a mistake

13 **What is braking distance?**

A the distance to the car ahead

B the distance travelled while the driver reacts

C the distance travelled while braking

D the total stopping distance

Understand It with Pulse | Flag a mistake

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

A zero

B low

C negative

D high

Understand It with Pulse | Flag a mistake

15 **An object speeds up from 0 m/s to 30 m/s in 10 seconds. What is its acceleration?**

- **A** 30 m/s²
- **B** 3 m/s²
- **C** 6 m/s²
- **D** 1.5 m/s²

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16 **A passenger aeroplane flies at a steady speed and height. What is the resultant force on the aeroplane?**

- **A** 10000 N
- **B** 0 N
- **C** 1000 N
- **D** 5000 N

Understand It with Pulse | Flag a mistake

17 **What is elastic potential energy?**

A energy of a hot object

B energy of movement

C stored stretch energy

D energy stored in a fuel

Understand It with Pulse | Flag a mistake

18 **A wristwatch is used to time a race. What is speed calculated from?**

A mass and time together

B time only, not distance

C distance only, not time

D distance and time

Understand It with Pulse | Flag a mistake

19 **A ladder leans against a wall. What force keeps it from slipping?**

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

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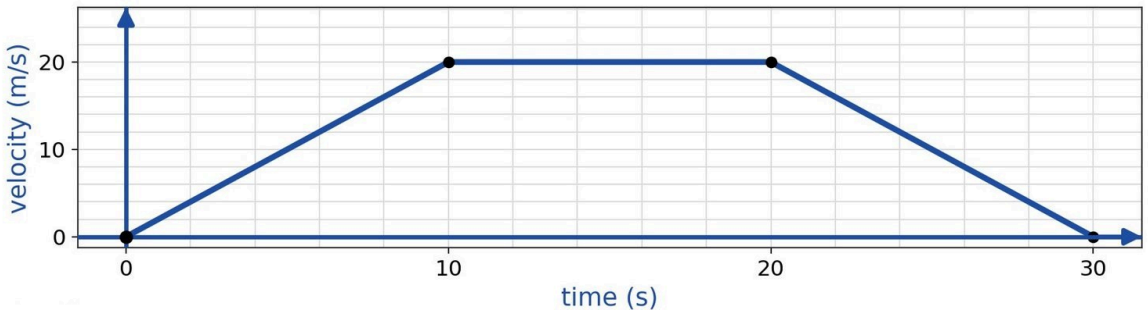
20 **The graph shows a velocity-time graph. What is the acceleration in the first 10 seconds?**



A 0 m/s²

B 20 m/s²

C 2 m/s²

D 10 m/s²

Understand It with Pulse | Flag a mistake

21 **What does a gear do in a bicycle?**

- A it makes the wheels bigger and heavier
- B it changes force and speed
- C it stops the bike
- D it stores energy

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

23 **A cardboard box is full of books. What is its mass like?**

- A zero
- B larger than when empty
- C the same as when empty
- D smaller than when empty

Understand It with Pulse | Flag a mistake

24 **A force of 50 N acts 5 m from a pivot. What is the moment of the force?**

- A 260 Nm
- B 500 Nm
- C 125 Nm
- D 250 Nm

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25 **What force is needed to accelerate a 5 kg object at 2 m/s squared?**

A 20 N

B 5 N

C 10 N

D 15 N

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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