ENGLAND GCSE COMBINED SCIENCE OCR GATEWAY FOUNDATION · UNIT 14 · 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 car leaves a roundabout. What happens to its direction?**

- A it changes
- B it disappears
- C it reverses
- D it stays the same

Understand It with Pulse | Flag a mistake

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

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

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

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

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4 **A red race car speeds up on a straight track. What is the resultant force doing?**

- A causing acceleration
- B causing a turn
- C causing deceleration
- D doing nothing

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

A tension

B friction

C gravity

D air resistance

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6 **A ladder is used to reach a roof. What is the ladder an example of?**

A a complex machine

B a power source

C a simple machine

D a lever only

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7 **A force of 50 N acts 4 m from a pivot. What is the moment of the force?**

- A 210 Nm
- B 100 Nm
- C 400 Nm
- D 200 Nm

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8 **An object travels 300 m in 10 seconds. What is its speed?**

- A 15 m/s
- B 30 m/s
- C 60 m/s
- D 3000 m/s

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9 **What force is needed to accelerate a 10 kg object at 5 m/s squared?**

- **A** 50 N
- **B** 55 N
- **C** 25 N
- **D** 100 N

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

- **A** 10 m/s^2
- **B** 0 m/s^2
- **C** 9.8 m/s^2
- **D** 1 m/s^2

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11 **What happens to a spring if it is stretched past its limit of proportionality?**

A it gets stronger

B it stops stretching

C it snaps at once

D it stays stretched

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

A it increases

B there is none

C it becomes gravity

D it stays the same

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13 **A force of 200 N acts on an area of 2 square metres. What is the pressure?**

- A 105 Pa
- B 50 Pa
- C 200 Pa
- D 100 Pa

Understand It with Pulse | Flag a mistake

14 **An object speeds up from 5 m/s to 15 m/s in 10 seconds. What is its acceleration?**

- A 2 m/s²
- B 0.5 m/s²
- C 1 m/s²
- D 10 m/s²

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15 **A force of 400 N acts on an area of 4 square metres. What is the pressure?**

- A 100 Pa
- B 200 Pa
- C 1600 Pa
- D 50 Pa

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16 **A see-saw balances when the moments on each side are what?**

- A equal
- B zero on both sides
- C bigger on the heavy side
- D doubled on the left side

Understand It with Pulse | Flag a mistake

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

A smaller than when empty

B the same as when empty

C zero

D larger than when empty

Understand It with Pulse | Flag a mistake

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

A gravity only, pulling them down

B centripetal force

C friction only, gripping the seat

D air resistance pushing them back

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

A it decreases

B it becomes zero

C it increases

D it stays the same

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

A kinetic energy of motion

B elastic potential energy

C thermal energy from friction

D gravitational potential

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21 **What is terminal velocity?**

A top steady falling speed

B the speed when drag is zero

C the speed of sound in air

D the speed when an object starts to fall

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22 **A force of 100 N acts on an area of 2 square metres. What is the pressure?**

A 25 Pa

B 50 Pa

C 55 Pa

D 100 Pa

Understand It with Pulse | Flag a mistake

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

A elastic potential

B thermal

C kinetic

D gravitational potential

Understand It with Pulse | Flag a mistake

24 **A tennis ball bounces. What happens to its kinetic energy?**

A some becomes heat

B it disappears completely

C it all stays kinetic energy

D it becomes light energy

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25 **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

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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