ENGLAND GCSE COMBINED SCIENCE OCR TWENTY FIRST CENTURY FOUNDATION · UNIT 16 · 10 QUESTIONS

Explaining Motion — 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 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

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

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

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3 **An object speeds up from 0 m/s to 10 m/s in 5 seconds. What is its acceleration?**

A 1 m/s²

B 4 m/s²

C 10 m/s²

D 2 m/s²

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

A low

B high

C zero

D negative

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5 **A bicycle freewheels downhill. What happens to its speed?**

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

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6 **A force of 25 N acts 2 m from a pivot. What is the moment of the force?**

- A 100 Nm
- B 25 Nm
- C 50 Nm
- D 60 Nm

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7 **Where is the pivot in a pair of scissors?**

- **A** at the tip of the blades
- **B** there is no pivot
- **C** at the end of the handles
- **D** where the two blades cross

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

- **A** 200 Pa
- **B** 25 Pa
- **C** 50 Pa
- **D** 100 Pa

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9 **What force is needed to accelerate a 10 kg object at 3 m/s squared?**

- A 60 N
- B 35 N
- C 30 N
- D 15 N

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

- A 50 N
- B 200 N
- C 100 N
- D 10 N

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ANSWER KEY

1. A
2. A
3. D
4. B
5. A
6. C
7. D
8. C
9. C
10. C

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