ENGLAND GCSE COMBINED SCIENCE AQA SYNERGY FOUNDATION · UNIT 7 · 10 QUESTIONS

Movement and Interactions — 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 Ferris wheel turns. What force keeps a person moving in a circle?**

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

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

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

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

A increases speed

B increases grip

C reduces grip

D reduces drag to zero

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

A zero

B negative

C low

D high

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5 **A device transfers 500 J of energy in 50 seconds. What is its power?**

- A 20 W
- B 5 W
- C 10 W
- D 25000 W

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6 **A device works at 12 V with a current of 5 A. What is its power?**

- A 60 W
- B 120 W
- C 70 W
- D 30 W

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

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

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8 **What does Fleming's left-hand rule give?**

- **A** the direction of the force
- **B** the size of the force
- **C** the direction of the current
- **D** the direction of the field

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9 **A 10 kg object moves at 10 m/s. What is its kinetic energy?**

- A 510 J
- B 500 J
- C 1000 J
- D 250 J

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10 **A 4 kg object is lifted 5 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 400 J
- B 200 J
- C 20 J
- D 100 J

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ANSWER KEY

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

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