ENGLAND GCSE PHYSICS EDEXCEL FOUNDATION · UNIT 15 · 10 QUESTIONS

Forces and Matter — 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 **Glass marbles are used to model atoms. What is a limitation of the model?**

- A marbles are the wrong colour for atoms
- B marbles are too small to see properly
- C marbles are much bigger than atoms
- D marbles cannot be counted accurately at all

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

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

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3 **What is the limit of proportionality?**

A the point where Hooke's law stops working

B the length of a spring with no force

C the force needed to stretch a spring

D the point where a spring breaks completely

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4 **A spring has a spring constant of 50 N/m. It is stretched by 0.2 m. Calculate the force in N.**

A 5

B 25

C 20

D 10

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5 **A spring has a spring constant of 20 N/m. It is stretched by 5 cm. What is the elastic potential energy stored?**

- A 0.0125 J
- B 0.05 J
- C 0.1 J
- D 0.025 J

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6 **A spring with spring constant 200 N/m is stretched by 0.1 m. Calculate the elastic potential energy stored in J.**

- A 4
- B 2
- C 1
- D 0.5

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7 **A calculator is switched on. What does the battery transfer energy to?**

A the screen only

B the circuits

C the case

D the buttons only

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8 **Two identical springs are stretched by the same force. How do their extensions compare?**

A they are the same

B one does not stretch at all

C both stretch to zero

D one stretches twice as far

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9 **A spring has a spring constant of 20 N/m. It is stretched by 5 cm. What is the force?**

- A 1.5 N
- B 2 N
- C 1 N
- D 0.5 N

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

- A a lever only
- B a simple machine
- C a complex machine
- D a power source

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ANSWER KEY

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

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