ENGLAND GCSE PHYSICS EDEXCEL FOUNDATION · UNIT 8 · 25 QUESTIONS

Energy - Forces Doing Work — 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 cup of coffee is left for an hour. What happens to its temperature?**

- A it falls to room temperature
- B it rises above room temperature
- C it falls to zero degrees
- D it stays the same all day

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

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

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3 **A basketball is dropped. What energy store increases as it falls?**

- A elastic
- B gravitational potential
- C kinetic
- D thermal

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4 **A rocket launches straight up. Which force acts downwards on the rocket?**

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

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

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

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6 **A cheese pizza is cooked in an oven. How is energy transferred in the oven?**

- A by evaporation from the cheese
- B by radiation and convection
- C by condensation on the oven walls
- D by conduction only, through the tray

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7 **A force of 10 N pushes an object 3 m. Calculate the work done in J.**

- A 30
- B 60
- C 40
- D 15

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8 **A mass of 5 kg is lifted 10 m. Calculate the gravitational potential energy gained in J. Use g = 10 N/kg.**

- A 500
- B 250
- C 1000
- D 550

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9 **A force of 25 N pushes a box 2 m along the ground. How much work is done?**

- A 80 J
- B 25 J
- C 50 J
- D 100 J

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10 **What is power?**

- A the distance a force moves an object
- B the rate of energy transfer
- C the total energy stored in an object
- D the force needed to lift an object

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11 **A mass of 5 kg moves at 2 m/s. Calculate its kinetic energy in J.**

- A 10
- B 5
- C 30
- D 20

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12 **A machine transfers 6000 J of energy in 50 s. Calculate the power in W.**

- A 240
- B 120
- C 60
- D 1200

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13 **A force of 20 N pushes an object 3 m. Calculate the work done in J.**

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

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14 **A mass of 4 kg is lifted 10 m. Calculate the gravitational potential energy gained in J. Use g = 10 N/kg.**

- A 200
- B 800
- C 400
- D 450

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15 **A force of 25 N pushes a box 10 m along the ground. How much work is done?**

- A 500 J
- B 250 J
- C 125 J
- D 280 J

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16 **What is work done?**

- A energy created by a force
- B energy transferred by a force
- C energy destroyed by a force moving an object
- D energy stored in a force

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17 **A mass of 10 kg moves at 5 m/s. Calculate its kinetic energy in J.**

- A 250
- B 62.5
- C 125
- D 375

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18 **A machine transfers 3000 J of energy in 50 s. Calculate the power in W.**

- A 30
- B 60
- C 600
- D 120

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19 **A mass of 4 kg is lifted 2 m. Calculate the gravitational potential energy gained in J. Use g = 10 N/kg.**

- A 130
- B 40
- C 80
- D 160

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20 **A force of 20 N pushes a box 4 m along the ground. How much work is done?**

- A 80 J
- B 40 J
- C 160 J
- D 110 J

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21 **A motor lifts a load. Where does the energy go?**

A it disappears into the wires

B it is destroyed by the motor completely

C it is created by the motor

D to the load as potential energy

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22 **A machine transfers 2000 J of energy in 10 s. Calculate the power in W.**

A 2000

B 400

C 200

D 100

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23 **A mass of 5 kg is lifted 2 m. Calculate the gravitational potential energy gained in J. Use g = 10 N/kg.**

- A 150
- B 200
- C 50
- D 100

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24 **A force of 25 N pushes a box 4 m along the ground. How much work is done?**

- A 200 J
- B 50 J
- C 130 J
- D 100 J

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25 **A mass of 2 kg moves at 4 m/s. Calculate its kinetic energy in J.**

A 8

B 48

C 32

D 16

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ANSWER KEY

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

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