ENGLAND GCSE COMBINED SCIENCE EDEXCEL FOUNDATION · UNIT 23 · 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 so it can be fixed.

1 **A bicycle has brakes. What do the brakes do to kinetic energy?**

- A transfer it to heat
- B turn it into light and sound
- C destroy it
- D store it

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2 **A cup of coffee cools down. Energy is transferred to the surroundings. What type of change is this?**

- A a reversible reaction
- B a chemical change
- C an energy transfer
- D a neutralisation

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

A it increases

B it becomes gravity

C it stays the same

D there is none

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

A causing deceleration

B causing a turn

C causing acceleration

D doing nothing

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

A by radiation and convection

B by condensation on the oven walls

C by conduction only, through the tray

D by evaporation from the cheese

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6 **A basketball is thrown up. What happens to its speed as it rises?**

A it becomes zero

B it stays the same

C it decreases

D it increases

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

- A to the load as potential energy
- B it is destroyed by the motor completely
- C it is created by the motor
- D it disappears into the wires

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

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

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

- A 100
- B 200
- C 2000
- D 400

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

- A 62.5
- B 125
- C 31.25
- D 187.5

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11 **A force of 50 N pushes a box 4 m along the ground. How much work is done?**

- A 400 J
- B 100 J
- C 200 J
- D 230 J

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

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

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13 **When a force moves an object, what happens to energy?**

A it is created from nothing at all

B it disappears from the universe

C it is destroyed completely

D it is transferred

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14 **A force of 10 N pushes an object 5 m. Calculate the work done in J.**

A 25

B 100

C 60

D 50

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15 **A machine transfers 3000 J of energy in 20 s. Calculate the power in W.**

- A 300
- B 150
- C 1500
- D 75

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16 **A mass of 10 kg moves at 3 m/s. Calculate its kinetic energy in J.**

- A 22.5
- B 45
- C 90
- D 135

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17 **A force of 10 N pushes a box 4 m along the ground. How much work is done?**

- A 80 J
- B 70 J
- C 20 J
- D 40 J

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

- A 500
- B 250
- C 300
- D 125

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19 **What is work done?**

A energy destroyed by a force moving an object

B energy stored in a force

C energy transferred by a force

D energy created by a force

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20 **A force of 25 N pushes an object 3 m. Calculate the work done in J.**

A 85

B 150

C 75

D 37

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21 **A machine transfers 1000 J of energy in 50 s. Calculate the power in W.**

- A 10
- B 40
- C 20
- D 200

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

- A 16
- B 8
- C 4
- D 24

Understand It with Pulse | Flag a mistake

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

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

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24 **Why does a moving object slow down on a rough surface?**

- A air pressure pushes it forwards
- B friction transfers energy to heat
- C the surface creates new energy
- D gravity pulls the object backwards

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25 **A force of 25 N pushes an object 5 m. Calculate the work done in J.**

- A 250
- B 135
- C 62
- D 125

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ANSWER KEY

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

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