ENGLAND GCSE PHYSICS EDEXCEL HIGHER · 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 rocket in space has no air around it. What happens to air resistance?**

- A there is none
- B it becomes gravity
- C it stays the same
- D it increases

Understand It with Pulse | Flag a mistake

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 a neutralisation
- D an energy transfer

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

A by conduction only, through the tray

B by condensation on the oven walls

C by evaporation from the cheese

D by radiation and convection

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4 **A basketball bounces. What type of energy is stored when the ball squashes?**

A thermal

B gravitational potential

C elastic potential

D kinetic

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

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

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

- A reduces drag to zero
- B reduces grip
- C increases speed
- D increases grip

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

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

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

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

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9 **A force of 20 N pushes a box 5 m along the ground. How much work is done?**

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

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

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

Understand It with Pulse | Flag a mistake

11 **A force of 50 N pushes an object 10 m. Calculate the work done in J.**

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

Understand It with Pulse | Flag a mistake

12 **A machine transfers 2000 J of energy in 100 s. Calculate the power in W.**

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

14 **What is work done?**

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

20 **What is power?**

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

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21 **A force of 10 N pushes a box 2 m along the ground. How much work is done?**

A 20 J

B 50 J

C 10 J

D 40 J

Understand It with Pulse | Flag a mistake

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

A 125

B 300

C 500

D 250

Understand It with Pulse | Flag a mistake

23 **A force of 20 N pushes an object 5 m. Calculate the work done in J.**

- A 110
- B 50
- C 200
- D 100

Understand It with Pulse | Flag a mistake

24 **A machine transfers 1000 J of energy in 20 s. Calculate the power in W.**

- A 50
- B 25
- C 500
- D 100

Understand It with Pulse | Flag a mistake

25 **A mass of 10 kg moves at 2 m/s. Calculate its kinetic energy in J.**

A 40

B 10

C 20

D 60

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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