ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY FOUNDATION · UNIT 18 · 25 QUESTIONS

Energy — 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 red race car speeds up. What happens to its kinetic energy?**

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

Understand It with Pulse | Flag a mistake

2 **A rocket is pushed up by hot gases. What is the upward force called?**

- A drag
- B weight
- C lift
- D thrust

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

A kinetic

B thermal

C elastic potential

D gravitational potential

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4 **A cup of coffee is left for an hour. What happens to its temperature?**

A it stays the same all day

B it falls to zero degrees

C it falls to room temperature

D it rises above room temperature

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

A by conduction only, through the tray

B by radiation and convection

C by evaporation from the cheese

D by condensation on the oven walls

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

A it stays the same

B it decreases

C it becomes zero

D it increases

Understand It with Pulse | Flag a mistake

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

- **A** 1000 J
- **B** 250 J
- **C** 500 J
- **D** 50 J

Understand It with Pulse | Flag a mistake

8 **A device transfers 500 J of energy in 20 seconds. What is its power?**

- **A** 12.5 W
- **B** 10000 W
- **C** 50 W
- **D** 25 W

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9 **A machine uses 2000 J of energy and gives out 400 J of useful energy. What is its efficiency?**

- A 20%
- B 10%
- C 40%
- D 30%

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10 **A 2 kg object moves at 10 m/s. What is its kinetic energy?**

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

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11 **What is the unit of energy?**

A the joule

B the newton

C the watt

D the volt

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12 **Which of these is a renewable energy resource?**

A coal

B oil

C wind

D natural gas

Understand It with Pulse | Flag a mistake

13 **A 10 kg object is lifted 3 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 300 J
- B 600 J
- C 150 J
- D 30 J

Understand It with Pulse | Flag a mistake

14 **A device transfers 100 J of energy in 25 seconds. What is its power?**

- A 2500 W
- B 8 W
- C 2 W
- D 4 W

Understand It with Pulse | Flag a mistake

15 **A machine uses 300 J of energy and gives out 60 J of useful energy. What is its efficiency?**

- A 30%
- B 10%
- C 20%
- D 40%

Understand It with Pulse | Flag a mistake

16 **When a ball falls, what happens to its energy?**

- A energy disappears
- B kinetic energy becomes gravitational potential energy
- C gravitational potential energy becomes kinetic energy
- D energy is made

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17 **A 10 kg object moves at 4 m/s. What is its kinetic energy?**

A 40 J

B 160 J

C 90 J

D 80 J

Understand It with Pulse | Flag a mistake

18 **Which of these is a non-renewable energy resource?**

A wind

B tidal

C coal

D solar

Understand It with Pulse | Flag a mistake

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

- **A** 25 J
- **B** 250 J
- **C** 500 J
- **D** 125 J

Understand It with Pulse | Flag a mistake

20 **A device transfers 100 J of energy in 20 seconds. What is its power?**

- **A** 2000 W
- **B** 5 W
- **C** 2.5 W
- **D** 10 W

Understand It with Pulse | Flag a mistake

21 **A machine uses 1600 J of energy and gives out 400 J of useful energy. What is its efficiency?**

- A 25%
- B 12.5%
- C 50%
- D 35%

Understand It with Pulse | Flag a mistake

22 **A 5 kg object moves at 3 m/s. What is its kinetic energy?**

- A 32.5 J
- B 22.5 J
- C 45 J
- D 11.25 J

Understand It with Pulse | Flag a mistake

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

- **A** 50 J
- **B** 500 J
- **C** 1000 J
- **D** 250 J

Understand It with Pulse | Flag a mistake

24 **A device transfers 500 J of energy in 10 seconds. What is its power?**

- **A** 100 W
- **B** 25 W
- **C** 5000 W
- **D** 50 W

Understand It with Pulse | Flag a mistake

25

A machine uses 800 J of energy and gives out 200 J of useful energy. What is its efficiency?

A 50%

B 35%

C 12.5%

D 25%

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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