ENGLAND GCSE COMBINED SCIENCE EDEXCEL HIGHER · UNIT 19 · 25 QUESTIONS

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

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

Understand It with Pulse | Flag a mistake

2 **A bicycle is ridden uphill. Which energy store increases?**

- A gravitational potential
- B thermal energy from friction
- C elastic potential energy
- D kinetic energy of motion

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

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

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4 **A red race car speeds up. What happens to its kinetic energy?**

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

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5 **A cheese pizza contains cheese made from milk. What is milk rich in?**

A fibre

B calcium

C iron

D vitamin C

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

A it falls to zero degrees

B it falls to room temperature

C it stays the same all day

D it rises above room temperature

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7 **Which of these is an energy store?**

- A a hot drink
- B a battery being charged
- C a stretched spring
- D a moving car

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8 **A Sankey display for a light bulb shows 100 J in, 10 J of light out and 90 J of heat out. What is the useful energy?**

- A 110 J in total
- B 100 J of electricity
- C 10 J of light
- D 90 J of heat

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9 **Why do some people object to wind turbines?**

A they only work at night

B they spoil the view

C they use up the wind

D they produce carbon dioxide

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10 **How can heat loss from a house be reduced?**

A by opening windows

B by turning the heating up

C by removing curtains

D by insulating the loft

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11 **A 4 kg object is lifted 2 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- **A** 80 J
- **B** 160 J
- **C** 8 J
- **D** 40 J

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12 **What is the unit of power?**

- **A** the volt, which is potential difference
- **B** the joule, which is energy
- **C** the newton, which is force
- **D** the watt

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13 **A 10 kg object moves at 5 m/s. What is its kinetic energy?**

- A 250 J
- B 135 J
- C 62.5 J
- D 125 J

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

16 **A machine wastes 30 J as heat for every 70 J of useful energy. What is its efficiency?**

- A 43%
- B 100%
- C 30%
- D 70%

Understand It with Pulse | Flag a mistake

17 **Which energy resource is reliable in any weather and produces no carbon dioxide while running?**

A wind power, which needs wind

B nuclear power

C solar power, which needs sun

D wave power, which needs waves

Understand It with Pulse | Flag a mistake

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

A 250 J

B 1000 J

C 500 J

D 50 J

Understand It with Pulse | Flag a mistake

19 **A machine uses 400 J of energy and gives out 80 J of useful energy. What is its efficiency?**

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

Understand It with Pulse | Flag a mistake

20 **A device transfers 100 J of energy in 50 seconds. What is its power?**

- A 5000 W
- B 1 W
- C 4 W
- D 2 W

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21 **A Sankey display shows most of the energy from a car engine going to heat. What does this mean?**

- A the car uses no fuel
- B the engine makes energy
- C the car is very efficient
- D most of it is wasted

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22 **Which energy resource will run out first?**

- A tidal power
- B solar power
- C geothermal power
- D a fossil fuel

Understand It with Pulse | Flag a mistake

23 **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 125 J
- C 500 J
- D 250 J

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24 **Two motors do the same work. One takes half the time of the other. How does its power compare?**

- A twice as much
- B the same
- C four times as much
- D half as much

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25

A 2 kg object moves at 5 m/s. What is its kinetic energy?

A 35 J

B 50 J

C 25 J

D 12.5 J

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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