ENGLAND GCSE PHYSICS AQA HIGHER · UNIT 4 · 10 QUESTIONS

Atomic Structure — 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 calculator uses a battery. What energy is stored in the battery?**

- A light energy from the Sun
- B chemical energy
- C thermal energy from heat
- D kinetic energy of motion

Understand It with Pulse | Flag a mistake

2 **Hardcover books are dropped. What happens to their speed as they fall?**

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

Understand It with Pulse | Flag a mistake

3 **An atom has a mass number of 12 and an atomic number of 6. How many neutrons does it have?**

- A 8
- B 7
- C 6
- D 5

Understand It with Pulse | Flag a mistake

4 **Silver coins conduct electricity well. Why?**

- A they are heavy
- B they have free electrons
- C they are shiny and reflective
- D they are cold

Understand It with Pulse | Flag a mistake

5 **Why is a short half-life source chosen for a medical tracer?**

- A it decays quickly
- B so it is cheaper to make
- C so it stays in the body for years
- D so it can be reused

Understand It with Pulse | Flag a mistake

6 **What is nuclear fission?**

- A removing electrons from atoms
- B joining small nuclei together
- C splitting a large nucleus
- D adding electrons to atoms

Understand It with Pulse | Flag a mistake

7 **A sample has an activity of 3200 counts per minute. After 2 half-lives, what is its activity?**

- A 400
- B 800
- C 1600
- D 3200

Understand It with Pulse | Flag a mistake

8 **What do control rods do in a nuclear reactor?**

- A they cool the water
- B they add more fuel
- C they absorb neutrons
- D they speed up the neutrons

Understand It with Pulse | Flag a mistake

9 **A sample's activity halves every 100 years. After 200 years, what fraction of the original activity remains?**

- A 1/8
- B 1/4
- C 1
- D 1/2

Understand It with Pulse | Flag a mistake

10 **A sample has a half-life of 5 days. What percentage of the sample is left after 10 days?**

- A 75%
- B 12%
- C 50%
- D 25%

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. C
3. C
4. B
5. A
6. C
7. B
8. C
9. B
10. D

© 2026 Brett Robbins. All Rights Reserved.