ENGLAND GCSE PHYSICS OCR TWENTY FIRST CENTURY FOUNDATION · UNIT 5 · 10 QUESTIONS

Radioactive Materials — 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 thermometer shows a patient's temperature is 39 degrees Celsius. Is this above or below normal body temperature?**

- A below normal
- B exactly normal
- C above normal
- D impossible to tell

Understand It with Pulse | Flag a mistake

2 **A hot air balloon cools down. What happens?**

- A it bursts
- B it stays still
- C it rises faster
- D it sinks

Understand It with Pulse | Flag a mistake

3 **How can the risk from a radioactive source be reduced?**

- A by warming it up
- B keep distance, limit time
- C by holding it for longer
- D by looking at it closely, every day

Understand It with Pulse | Flag a mistake

4 **A swimming pool is filled with water. What is the density of water?**

- A about 100 kilograms per cubic metre, roughly
- B about 10 kilograms per cubic metre
- C about 1000 kilograms per cubic metre
- D about 1 kilogram per cubic metre

Understand It with Pulse | Flag a mistake

5 **What is a chain reaction in a nuclear reactor?**

- A the fuel burns in air
- B electrons jump between shells
- C neutrons cause more fissions
- D the reactor heats up and melts

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

7 **A sample has a half-life of 5 days. What percentage of the sample is left after 15 days?**

- A 6%
- B 24%
- C 12%
- D 88%

Understand It with Pulse | Flag a mistake

8 **Hardcover books have mass. What is mass measured in?**

- A newtons, the unit of force
- B kilograms
- C joules
- D watts

Understand It with Pulse | Flag a mistake

9 **A sample has an activity of 1600 counts per minute. After 2 half-lives, what is its activity?**

- A 800
- B 1600
- C 400
- D 200

Understand It with Pulse | Flag a mistake

10 **Why is iodine-131 used to treat the thyroid gland?**

- A it makes the thyroid grow
- B it stops all radiation
- C it is absorbed by the bones
- D it goes to the thyroid

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

© 2026 Brett Robbins. All Rights Reserved.