ENGLAND GCSE PHYSICS OCR TWENTY FIRST CENTURY HIGHER · 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 measures temperature in degrees Celsius. What is the freezing point of water on this scale?**

- A 10
- B 32
- C 100
- D 0

Understand It with Pulse | Flag a mistake

2 **Glass marbles are shaken in a tray. What does this model?**

- A particles bonding together
- B particles disappearing completely
- C particles gaining energy
- D particles freezing into place

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3 **A hot air balloon rises because the air inside it is less dense than the air outside. What happens to the density of air when it is heated?**

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

Understand It with Pulse | Flag a mistake

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

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

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5 **Which releases more energy per kilogram of fuel, fission or fusion?**

A they release the same

B fission

C fusion

D neither releases energy

Understand It with Pulse | Flag a mistake

6 **A radioactive sample has an activity of 1600 Bq. What is its activity after 2 half-lives?**

A 200 Bq

B 800 Bq

C 400 Bq

D 1600 Bq

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7 **A swimming pool is heated. What happens to the water particles?**

A they disappear

B they get smaller

C they move faster

D they stop moving

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8 **A sample has a half-life of 10 years. After 20 years, what fraction remains?**

A 1/8

B 1/2

C 3/4

D 1/4

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9 **In alpha decay, what happens to the mass number of the nucleus?**

A it stays the same

B it falls by 4

C it falls by 2

D it rises by 4

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10 **Hardcover books are stacked on a table. What force pulls them down?**

A tension

B friction

C air resistance

D gravity

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ANSWER KEY

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

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