

## **GCSE Physics A (Gateway)**

**J249/02 Physics A P5-P8 and P9 (Foundation Tier)**

### **Question Set 28**

Multiple Choice Questions

P6: Radioactivity

1 What is the number of neutrons in this isotope of uranium?



- A 92
- B 119
- C 146
- D 238

Your answer

[1]

2 All radioactive sources have a half-life.

Which statement about the half-life of a source is correct?

- A It is half the time for an atom to decay.
- B It is half the time for the activity of the source to decrease to zero.
- C It is half the time for the radioactive source to become safe.
- D It is the time for the activity of the source to decrease by half.

Your answer

[1]

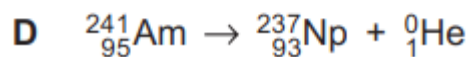
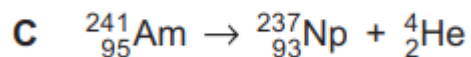
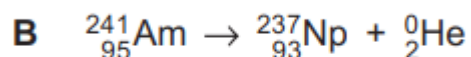
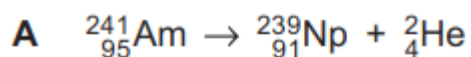
3 Which statement is true about the **nucleus** of an atom?

- A It contains neutrons and ions and has a negative charge.
- B It contains neutrons and ions and has a neutral charge.
- C It contains neutrons and protons and has a neutral charge.
- D It contains neutrons and protons and has a positive charge

Your answer

[1]

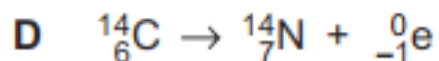
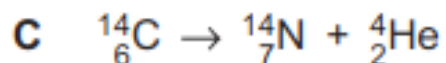
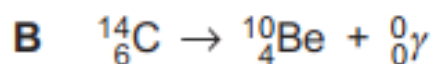
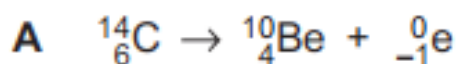
4 Which equation shows a correct alpha decay?



Your answer

[1]

5 Which radioactive decay equation is correct?



Your answer

[1]

**Total Marks for Question Set 28: 5**

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