

## **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

$$238 - 92 = 146$$

Your answer

C

[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

D

[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.

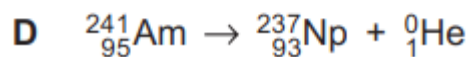
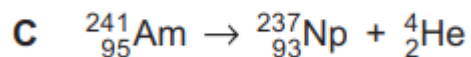
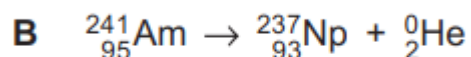
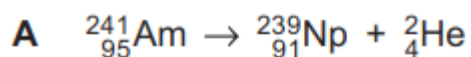
D It contains neutrons and protons and has a positive charge

Your answer

D

[1]

4 Which equation shows a correct alpha decay?

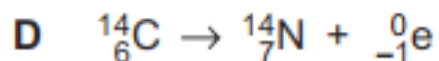
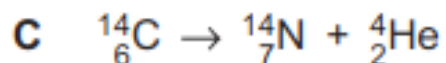
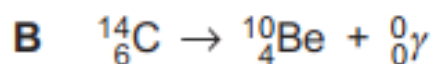
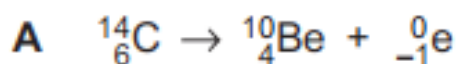


Your answer

C

[1]

5 Which radioactive decay equation is correct?



Your answer

D

[1]

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

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