

5 The radioactive decay of a nucleus is described as a random process.

Which of the following is a reason for this?

- ☐ **A** There are a number of different decay paths.
- ☐ **B** The nucleus will probably decay after one half-life.
- ☐ **C** The nucleus will decay without any external stimulus.
- ☐ **D** There is a fixed probability of the nucleus decaying in the next second.

(Total for Question 5 = 1 mark)