

24 A beam consists of ionised atoms of two isotopes of an element. When the beam enters a uniform magnetic field, the ions move in circular paths. The ions have the same charge and travel at the same speed when they enter the magnetic field.

Which statement is true?

- A** The force acting on an ion is different for each isotope.
- B** The radius of the path followed by an ion is different for each isotope.
- C** The kinetic energy of an ion increases for both isotopes.
- D** The acceleration of an ion is the same for both isotopes.

25 A circular coil with a radius of 0.10 m has 200 turns. The coil rotates at 50 revolutions per second about