

GCSE Physics A (Gateway)

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

Question Set 15

- 1 Atoms can absorb and emit electromagnetic radiation.
- (a) Describe **two** possible effects on an electron in an atom when it absorbs electromagnetic radiation.
- The electron will jump up to the next energy level.
- Its spin ^{rate} will increase. [2]
- (b) Alpha radiation is **not** emitted in the processes in part (a).

Explain why.

The photons from the radiation do not have enough energy to split the atom's nucleus, releasing an alpha particle (2 protons, 2 neutrons) [2]

Total Marks for Question Set 15: 4

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