

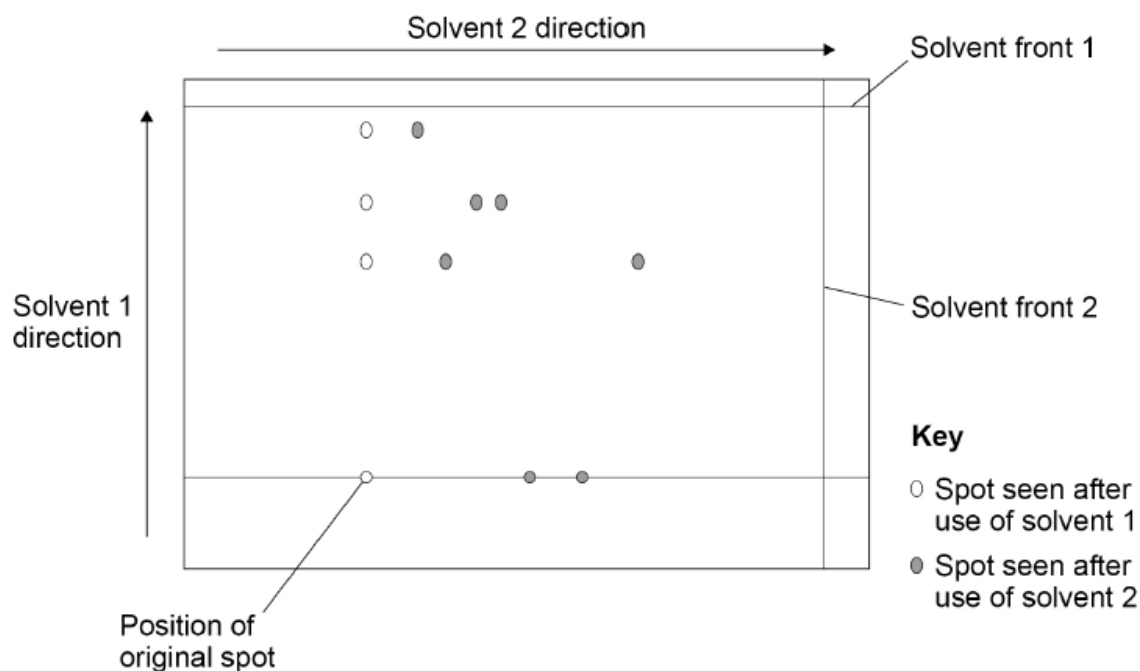
AQA – Chromatography – A2 Chemistry P2

1. June/ 2019/Paper_2/No.9

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This question is about thin-layer chromatography (TLC).

- A protein was hydrolysed to form a mixture of amino acids.
- A spot of this mixture was added to a TLC plate and the plate placed vertically in a small volume of solvent 1.
- When the solvent front reached nearly to the top of the plate, the plate was removed and allowed to dry.
- The plate was turned anticlockwise through 90° and placed vertically in a small volume of solvent 2.
- When the solvent front reached nearly to the top of the plate, the plate was again removed and allowed to dry.
- **Figure 2** shows the final TLC plate.

Figure 2

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Suggest a suitable reagent for the hydrolysis of a protein.

[1 mark]

0 9 . 2 Suggest how the positions of the amino acids on the TLC plate were located. **[1 mark]**

0 9 . 3 Deduce the minimum number of amino acids present in the original mixture. **[1 mark]**

0 9 . 4 Suggest why it was necessary to use two different solvents. **[1 mark]**
