

# **37. Analytical techniques**

## **37.1 Thin-layer chromatography**

### **Paper 4**

Marking Scheme

**Q1.**

(f)(i)	aluminum oxide / silica (on solid support) <b>AND</b> inert gas / named inert gas e.g. N <sub>2</sub>	<b>1</b>
(f)(ii)	<b>S AND R<sub>f</sub></b> is the same as the unknown amino acid in both solvents	<b>1</b>

**Q2.**

(d)(i)	distance travelled by amino acid divided by distance travelled by solvent [1]	<b>1</b>
(d)(ii)	tyr is more soluble in the solvent used <b>or</b> lys is more attracted to the stationary phase used	<b>1</b>

**Q3.**

(a)(i)	A= leucine B= glutamic acid <b>both</b> [1]	<b>1</b>
(a)(ii)	greater <b>and</b> more soluble in the solvent / mobile phase <b>OR</b> greater <b>and</b> form more H-bonds with the solvent [1]	<b>1</b>