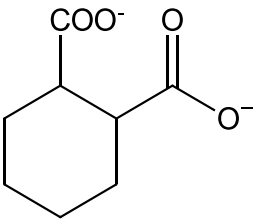
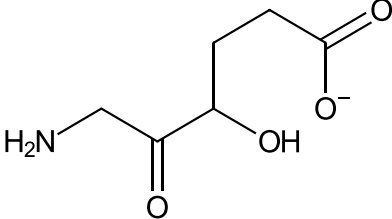


8(a)	- chlorobenzene is less reactive than ethanoyl chloride - p orbital / lone pair on Cl / -Cl will overlap / delocalise into the ring OR C of COCl has most electron deficient OR has an electronegative oxygen atom / two electronegative atoms / electron withdrawing C=O group - due to partial double C-Cl bond OR C-Cl bond strengthened (more) / stronger bond between Cl and benzene / ring OR C-Cl weakened in ROCl any two [1], all three [2]
8(b)(i)	- nitrile - amide - ketone / carbonyl - ester any two [1], all four [2]
8(b)(ii)	8 / eight
8(b)(iii)	no need to separate optical isomers
8(c)	  M1: amide bond hydrolysed and COO⁻ and NH₂ formed M2: nitrile bond hydrolysed and COO⁻ formed M3: ester bond hydrolysed and COO⁻ and OH formed
8(d)(i)	percentage = $100 \times 28 / (28 + 58 + 13 + 42) = 19.9 (\%)$ min 2sf
8(d)(ii)	D is attracted more strongly to the stationary phase / forms stronger intermolecular forces with the stationary phase