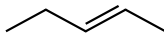
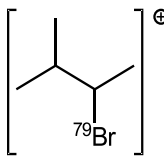
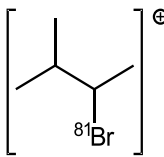


4(a)(i)	M1 (molecules with the) same molecular formula / same number of atoms of each element M2 different structural formulae/structures								
4(a)(ii)	M1  M2 restricted / lack of / no rotation about C=C								
4(a)(iii)	electrophilic addition								
4(a)(iv)	M1 CH ₃ COCH ₃ + CH ₃ COOH as products M2 (CH ₃) ₂ C = CHCH ₃ + 3[O] → CH ₃ COCH ₃ + CH ₃ COOH								
4(a)(v)	M1 (reaction proceeds via a) more stable intermediate / carbocation M2 because of greater positive inductive effect of more alkyl groups								
4(a)(vi)	M1  M2 								
4(b)(i)	KCN in ethanol (and heat)								
4(b)(ii)	(C ₂ H ₅) ₂ CHCN + 2H ₂ O + HCl → (C ₂ H ₅) ₂ CHCOOH + NH ₄ Cl								
4(b)(iii)	<table><tr><td></td><td>reaction of V with propan-2-ol</td></tr><tr><td>type of reaction</td><td>M1 condensation</td></tr><tr><td>functional group formed</td><td>M2 ester</td></tr><tr><td>molecular formula of organic product W</td><td>M3 C₉H₁₈O₂</td></tr></table>		reaction of V with propan-2-ol	type of reaction	M1 condensation	functional group formed	M2 ester	molecular formula of organic product W	M3 C ₉ H ₁₈ O ₂
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