

OCR Chemistry A

28 Organic synthesis

Specification reference	Checklist questions	
6.2.4 a	Can you describe the use of C–C bond formation in synthesis to increase the length of a carbon chain?	<input type="checkbox"/>
6.2.4 b i	Can you describe the formation of C–C=N by reaction of haloalkanes with CN [–] and ethanol, including nucleophilic substitution mechanism?	<input type="checkbox"/>
6.2.4 b ii	Can you describe the formation of C–C=N by reaction of carbonyl compounds with HCN, including nucleophilic addition mechanism?	<input type="checkbox"/>
6.2.4 c i	Can you recall the reactions of nitriles by reduction to form amines?	<input type="checkbox"/>
6.2.4 c ii	Can you recall the reactions of nitriles by acid hydrolysis to form carboxylic acids?	<input type="checkbox"/>
6.2.4 d	Can you describe the formation of a substituted aromatic C–C by alkylation (using a haloalkane) and acylation (using an acyl chloride) in the presence of a halogen carrier (Friedel–Crafts reaction)?	<input type="checkbox"/>
6.2.5 a i	Can you describe organic preparation using Quickfit apparatus and distillation and heating under reflux?	<input type="checkbox"/>
6.2.5 a ii	Can you describe the purification of an organic solid by filtration under reduced pressure, recrystallization, measurement of melting points?	<input type="checkbox"/>
6.2.5 b i	Can you identify individual functional groups of organic molecules containing several functional groups?	<input type="checkbox"/>
6.2.5 b ii	Can you predict properties and reactions of organic molecules containing several functional groups?	<input type="checkbox"/>
6.2.5 c	Can you describe multi-stage synthetic routes for preparing organic compounds?	<input type="checkbox"/>