CHEM1611 2007-J-10 22/31(a)

• Cyclopentadiene reacts with sodium hydroxide. Predict the structure of the product and explain its relative stability.			
NaOH ?			

THE REMAINDER OF THIS PAGE IS FOR ROUGH WORKING ONLY.

Complete the following table.			
STARTING MATERIAL	REAGENTS/ CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)	
		NO ₂	7

• Show clearly the reagents you would use to carry out the following chemical conversions. Draw constitutional formulas for any intermediate compounds. Note: More than one step is required in both cases.

Marks 3

$$\bigcap_{NO_2} \bigcap_{NO_2} \bigcap$$

• Complete the following table.

Marks 1

STARTING MATERIAL	REAGENTS/CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)
	CH ₃ —C—Cl / AlCl ₃	

• Complete the following table. Make sure you give the name of the product or starting material where requested.

Marks 1

STARTING MATERIAL	REAGENTS/CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)
		NO ₂