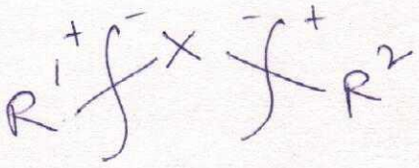
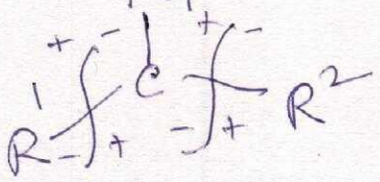
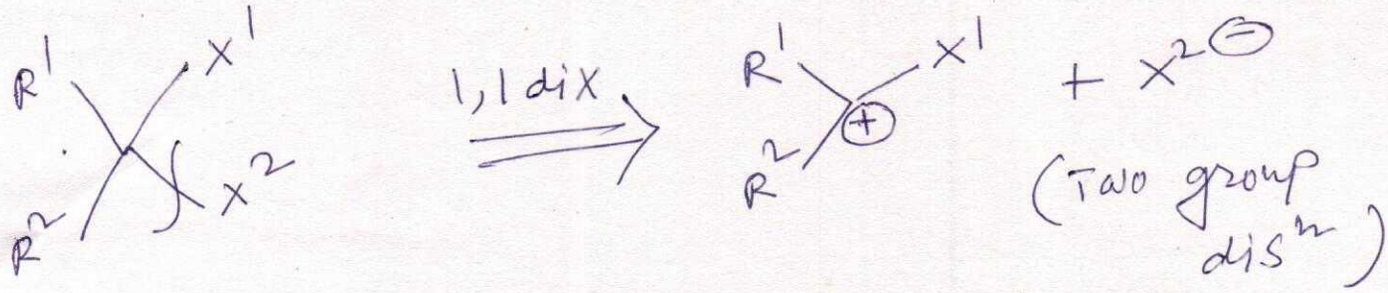
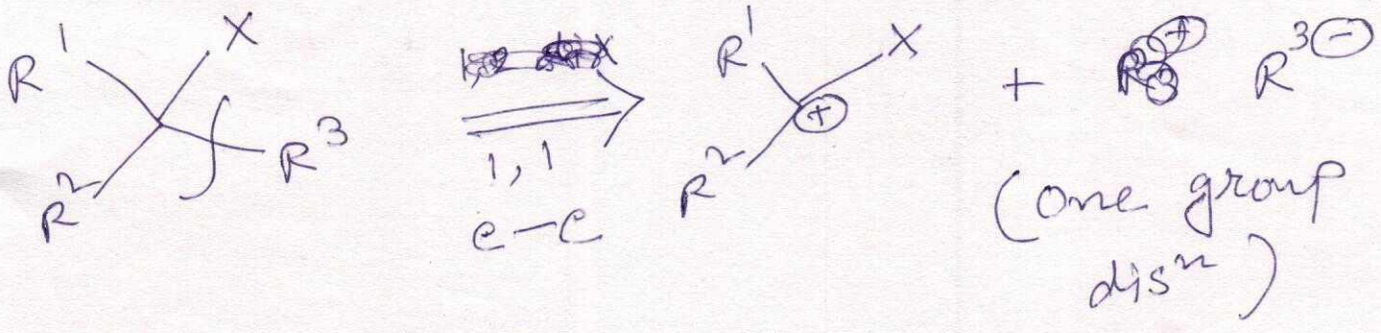
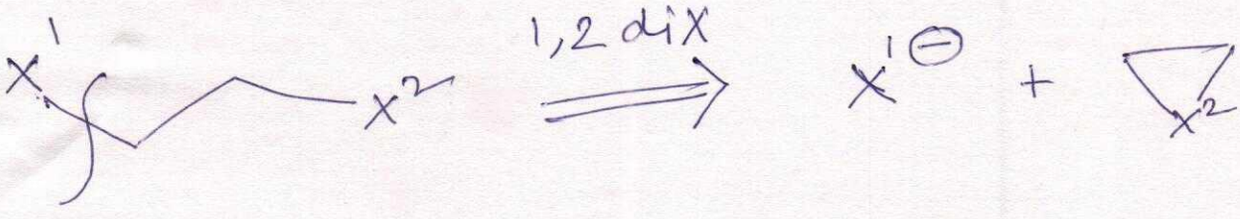
One group C—C disconnections :

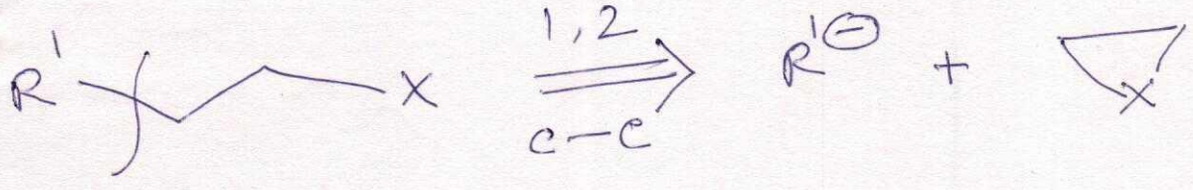


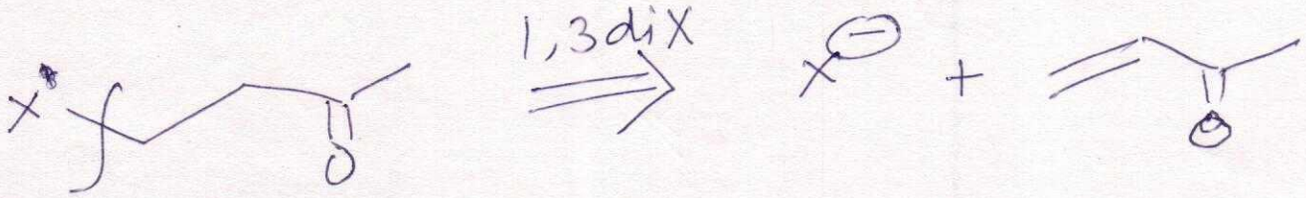


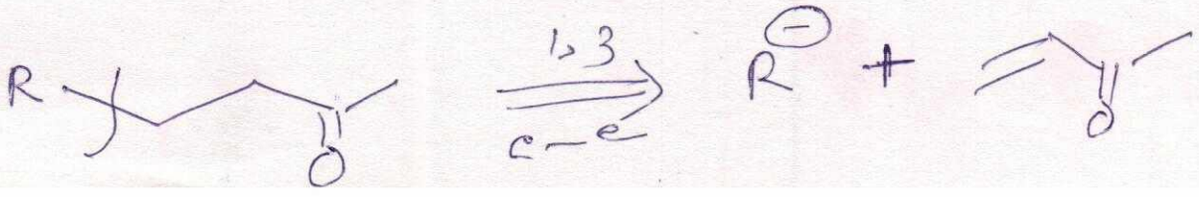




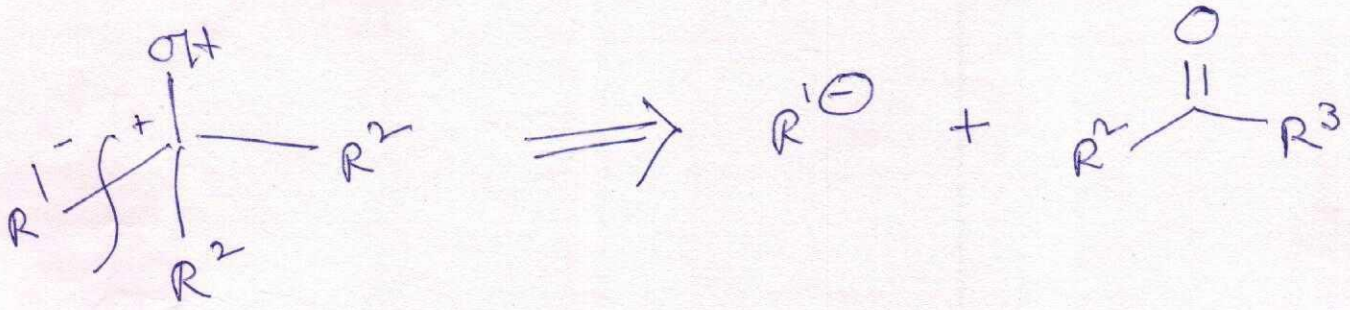






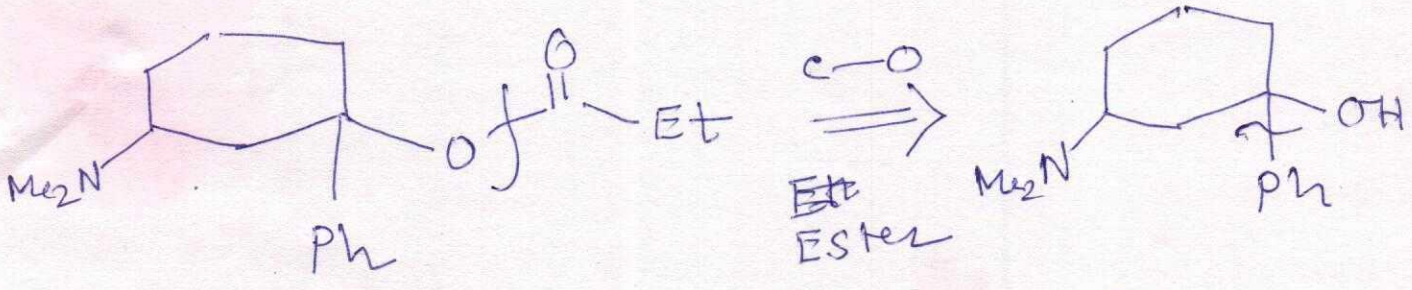


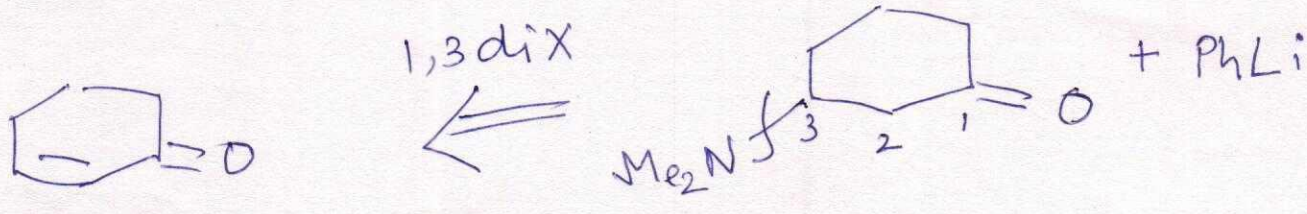
1,1 c–c disconnections for the Synthesis of Alcohols:



$\Longrightarrow$ Availability of the SM dictates the choice of c–c disconnection.

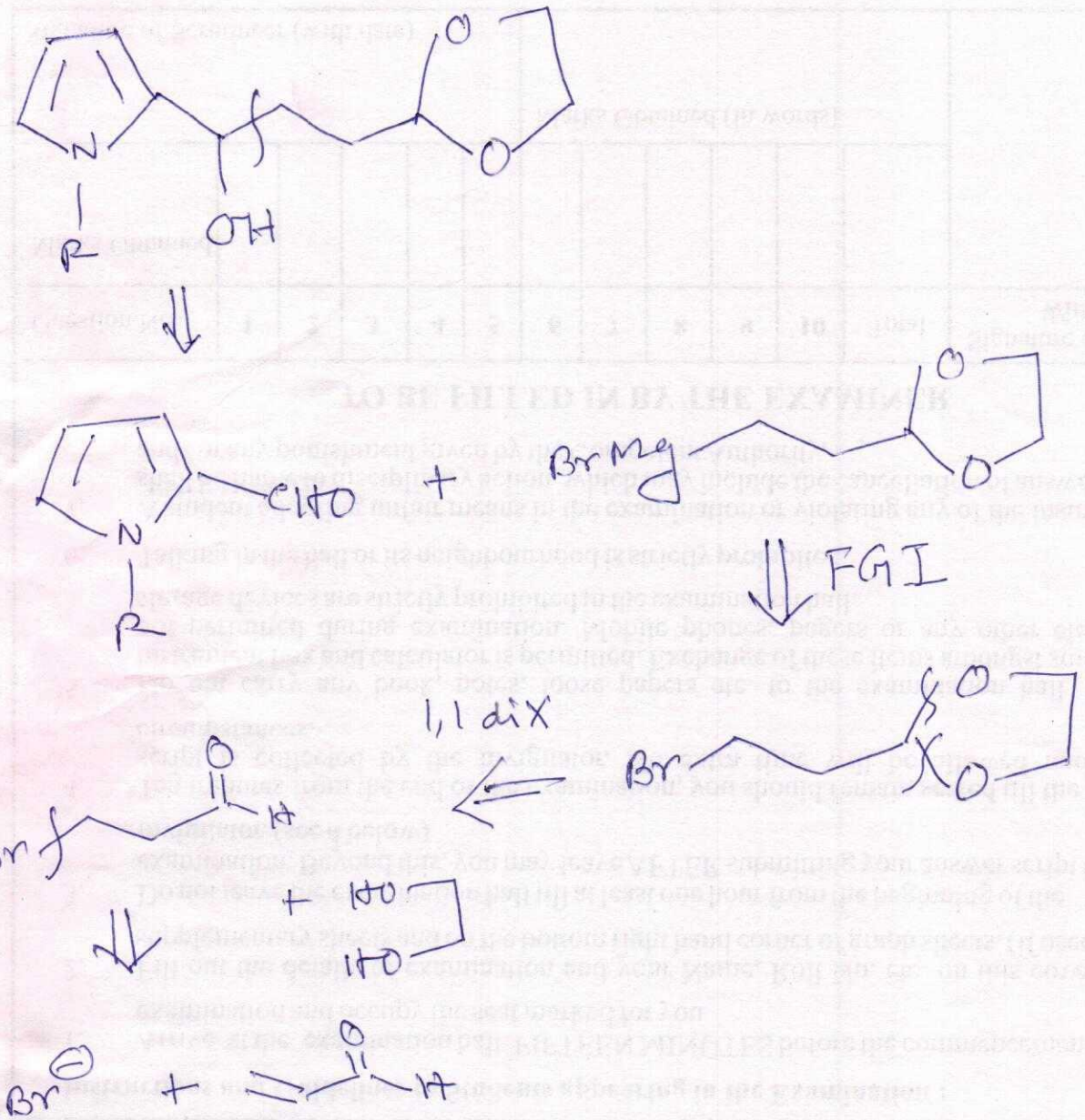
$\Longrightarrow$ In case of ring vs branching, generally disconnect the branching



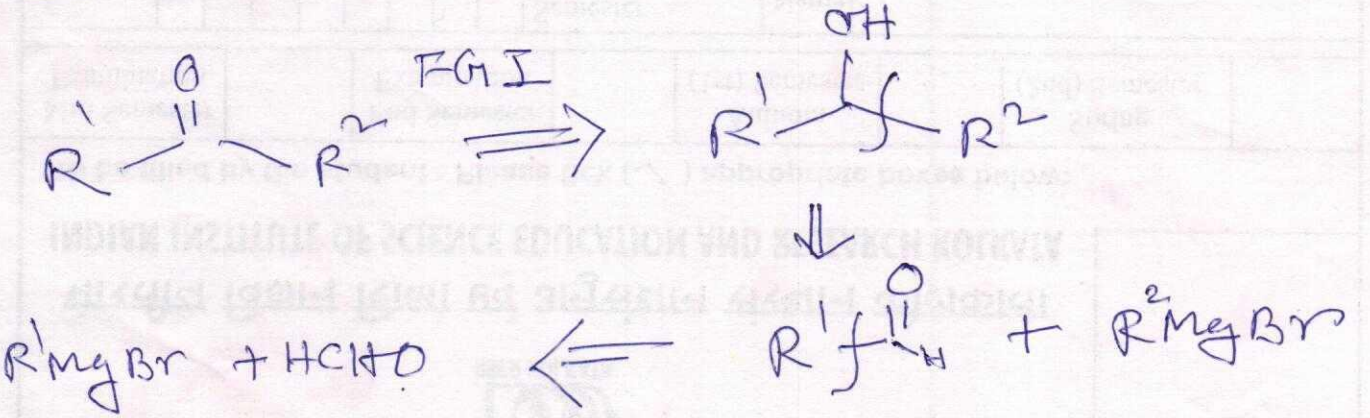


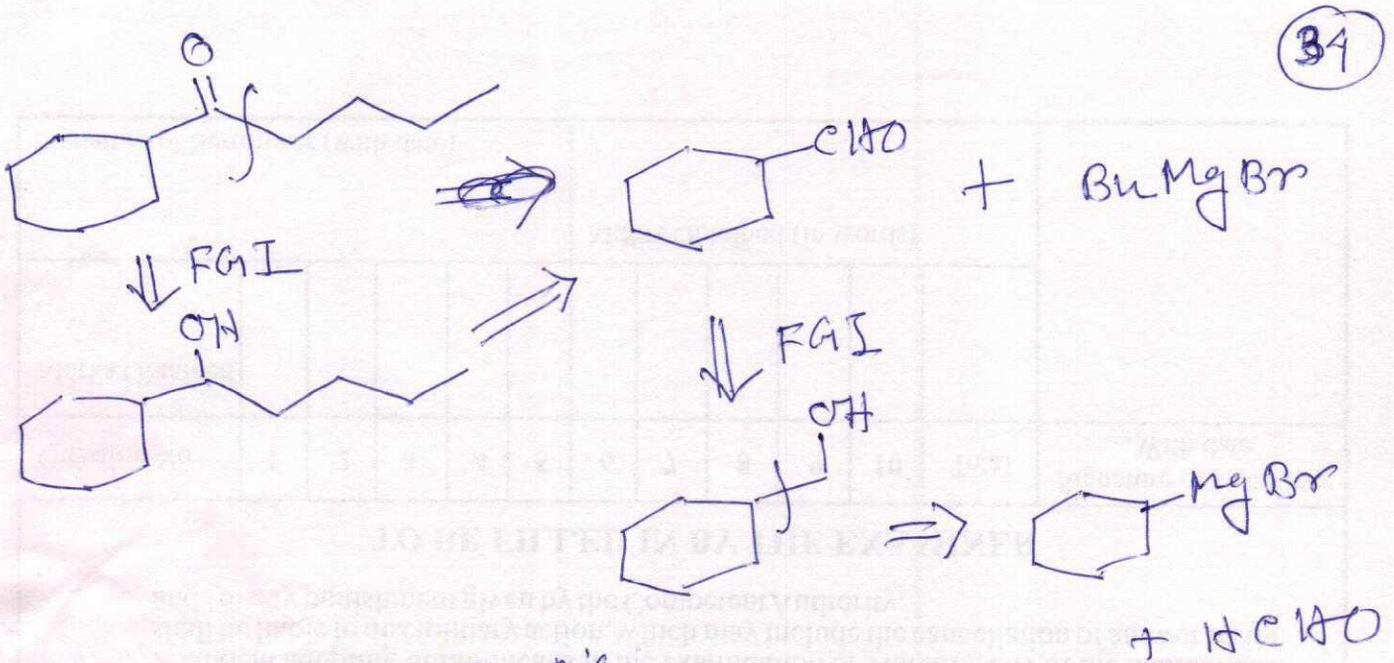
R–Hal $\xrightarrow[\text{or Li}]{\text{Mg}}$ R–MgHal or RLi

$\xrightarrow{\text{BuLi}}$ RLi



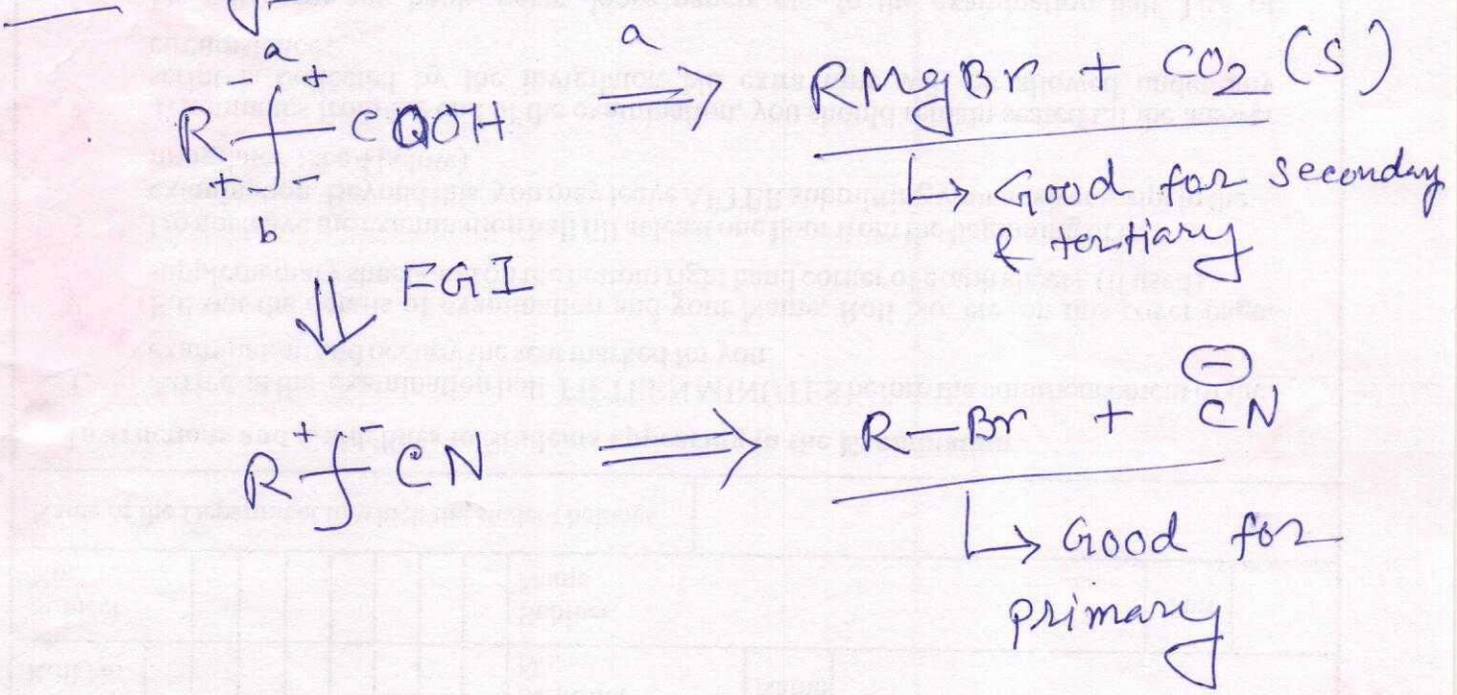
Synthesis of carbonyl:

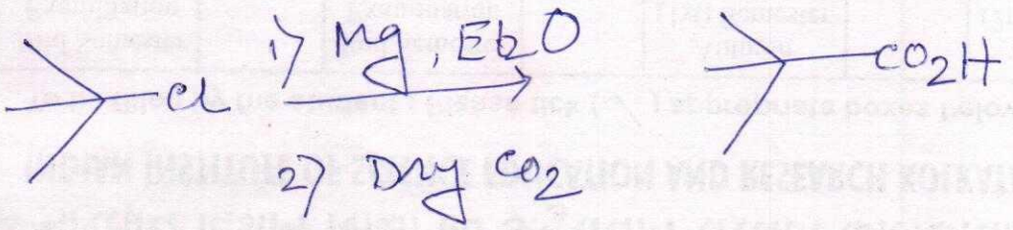


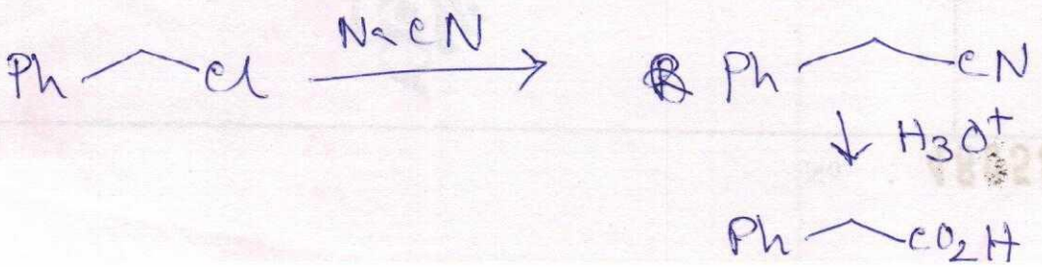


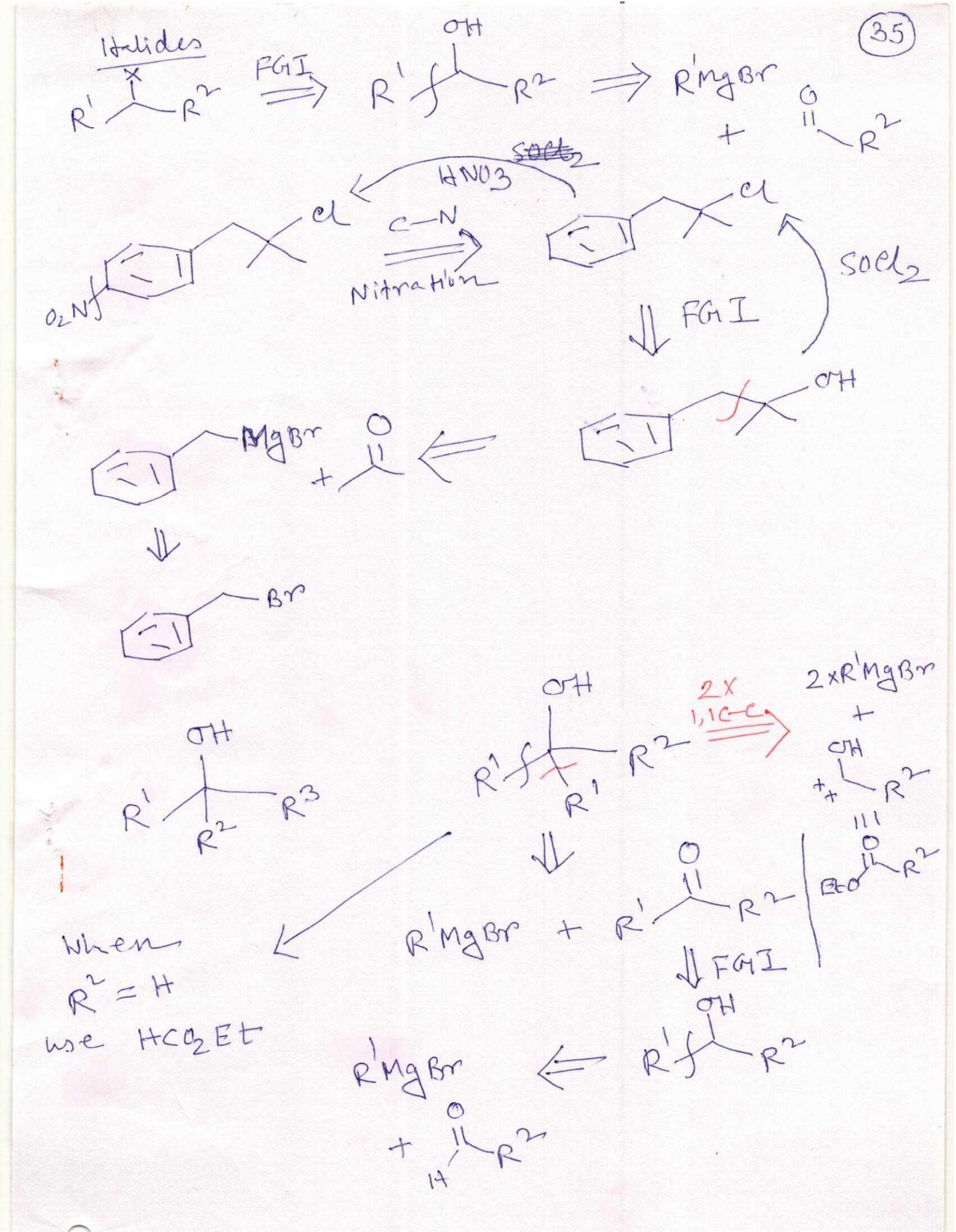
* Discuss P35 + 36 after this

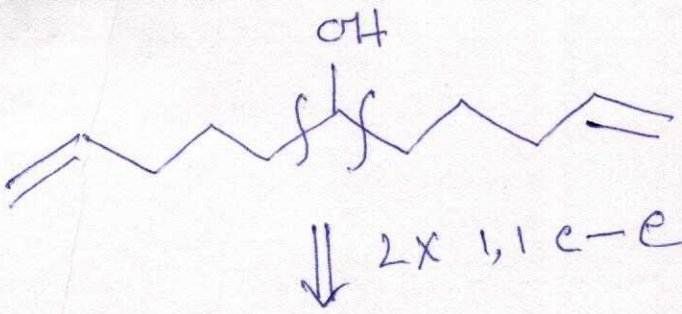
Carboxylic acid:

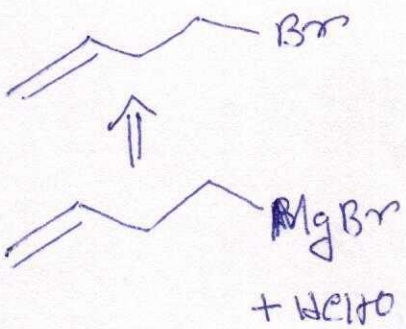


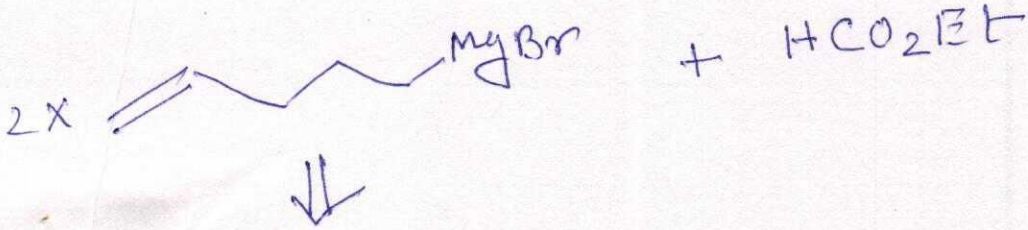


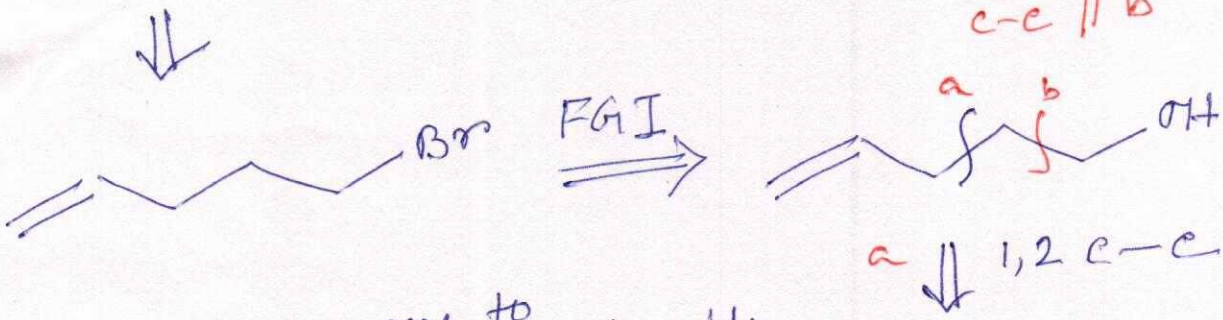



Halides
FGI
R'MgBr
HNO3
SOCl2
C–N
Nitration
SOCl2
FGI
MgBr
Br
2X
1,1C–C
2×R'MgBr
When
R² = H
use HCO2Et
R'MgBr
FGI
R'MgBr

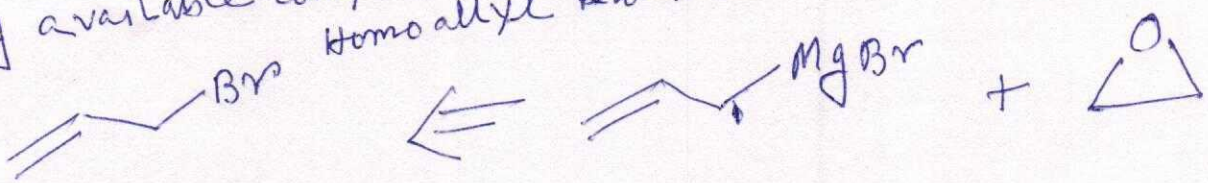




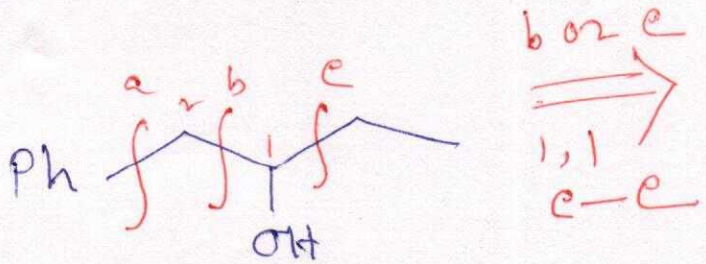


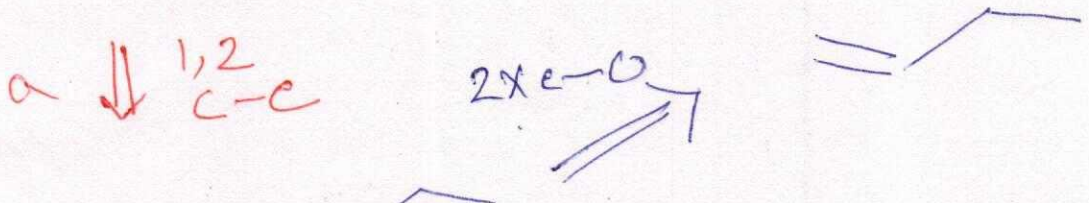


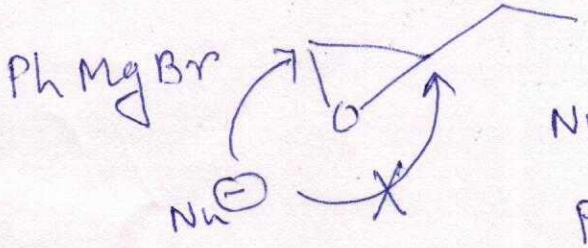
Easily available compare to Homoallyl bromide



1,2 c–c Disconnections : The Synthesis of alcohols







Nucleophilic attack takes place at the Less substituted position