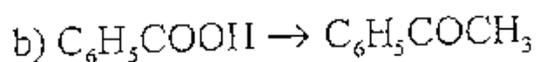
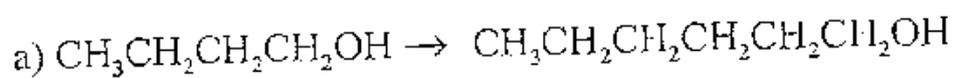


1. 請寫出酯在酸中之加水分解之機構，並指出其反應決定步驟？(20%)

2. 試寫出有機鹵化合物之脫離反應機構？(20%)

3. 請寫出下列反應之最適合成路徑並標明所需反應試劑？(20%)



4. 試用簡單化學方法分辨下列各組A, B化合物？(20%)

a) A: ethylene chloride, B: 1,2-dichloroethylene

b) A: isobutyraldehyde, B: methyl ethyl ketone

c) A: *p*-toluidine, B: N-methylaniline

d) A: benzyl methyl ether, B: *p*-cresyl methyl ether

5. 試對下列之有機反應，舉出具體例並說明之？(20%)

a) Diels-Alder Reaction

b) Friedel-Crafts Reaction

c) Michael Additions

d) Claisen Condensation

參考  
原