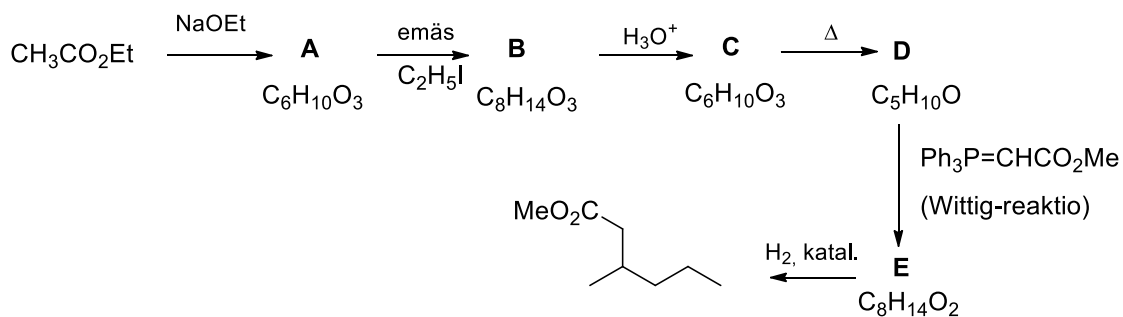


AIEMPIA TENTTIKYSYMYKSIÄ 2 (VASTAUKSET 1.12)

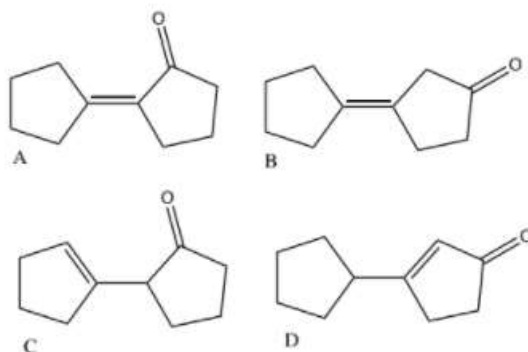
Kysymys 1 :

Täydennä seuraava reaktiokaavio. (Rakenteet A-E). Esitä mekanismit myös A:n ja B:n muodostumiselle.



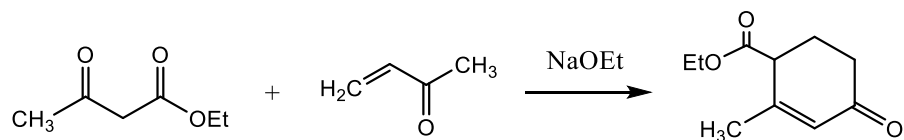
Kysymys 2

Kun syklopentanoni reagoi happamissa olosuhteissa muodostuu aldol-tuote. Mikä seuraavista lopputuotteista muodostuu aldol-tuotteesta eliminaation jälkeen? Piirrä aldol-reaktion ja eliminaatio-reaktion mekanismit?



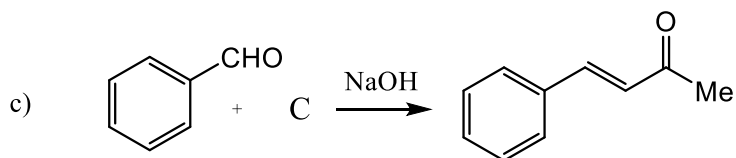
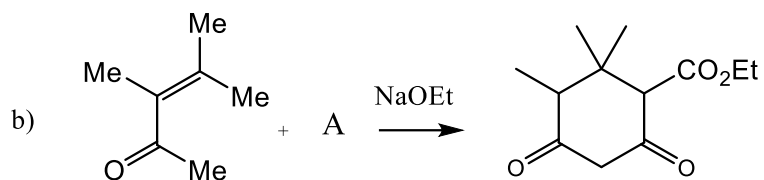
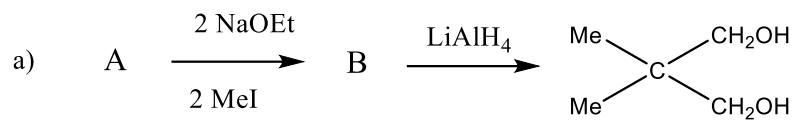
Kysymys 3

Esitä seuraavan Robinson-annulaatio reaktion mekanismi? Natriumetoksidi toimii emäksenä reaktiossa.

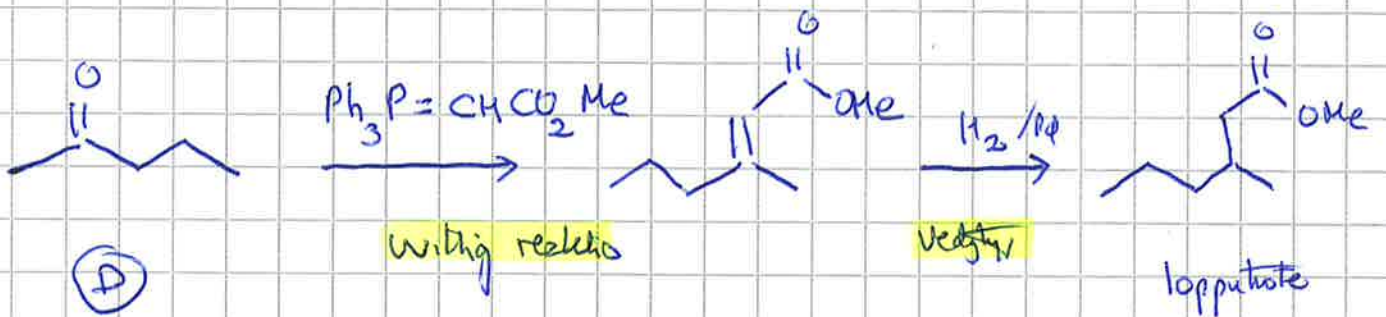
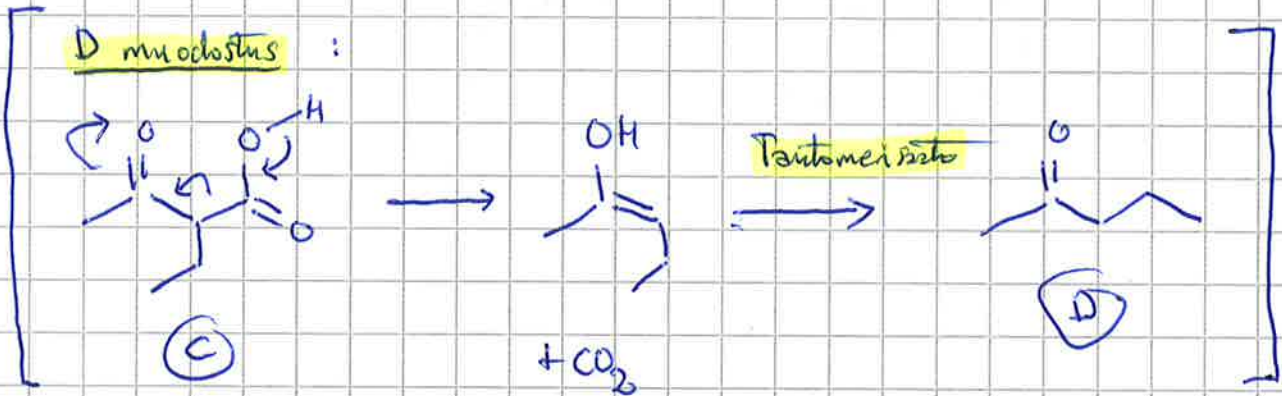
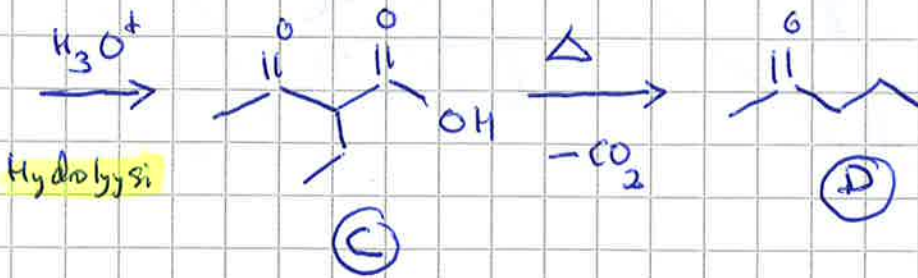
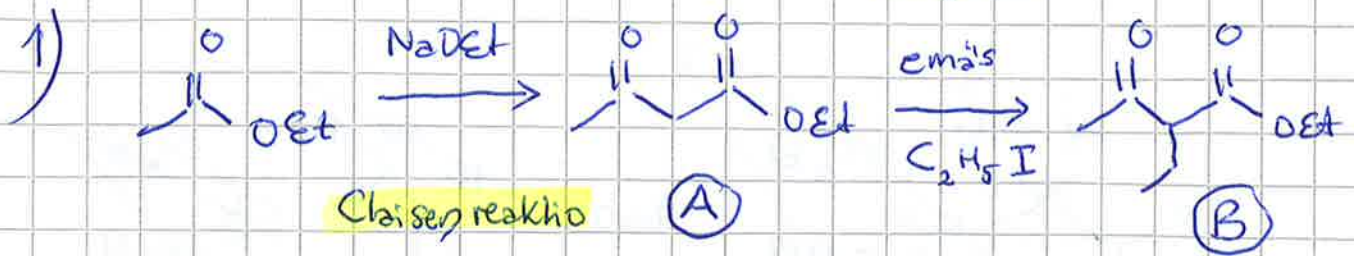


Kysymys 4

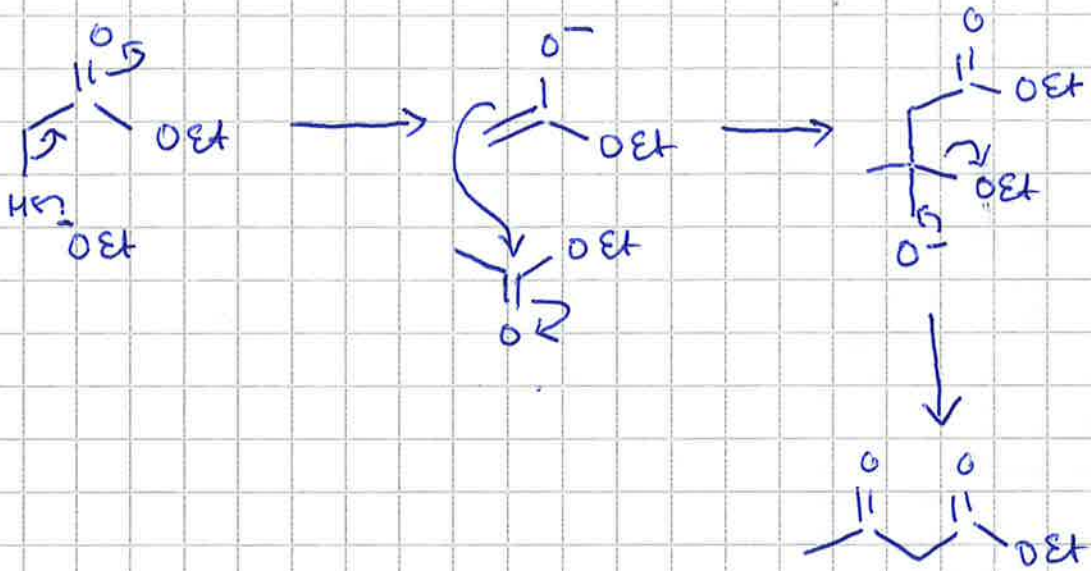
Selvitä yhdisteiden **A**, **B** ja **C** rakenne? Mitkä reaktiot ovat kyseessä? (Huom: Yhdiste **A** on sama kahdessa ensimmäisessä reaktiossa a ja b)



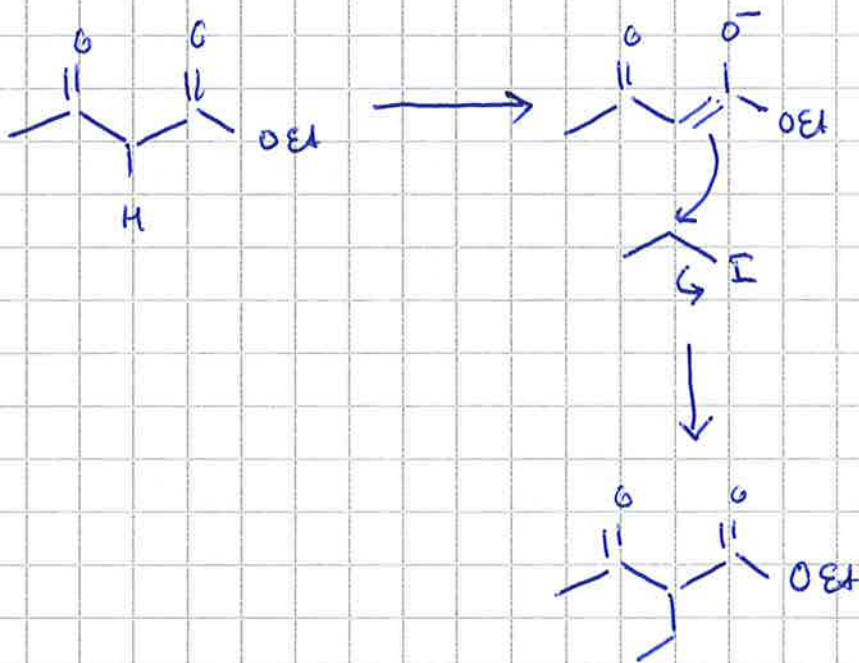
Alkyloini



1) A:n muodostus : (Claisen)



B:n muodostus : (Allylomk)

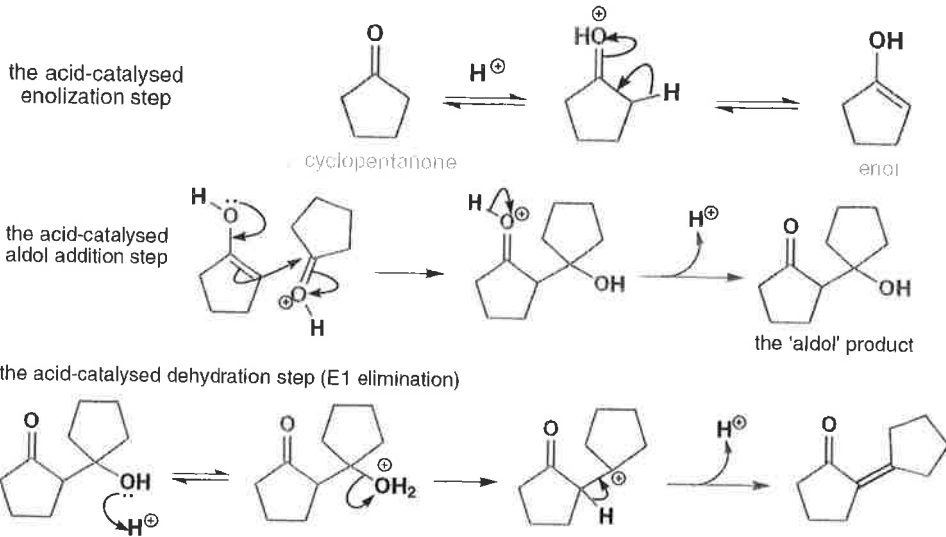


2)

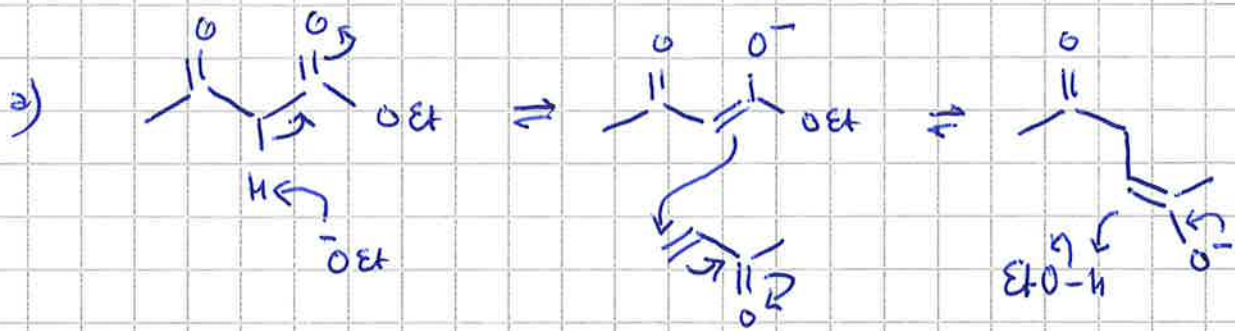
Aldol reaktio

Myös happamat olosuhteet -> johtaa helposti eliminaatioon

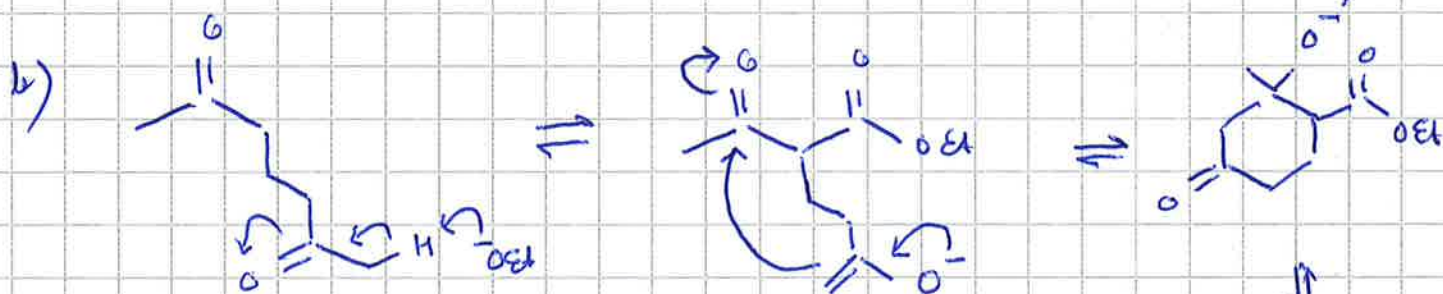
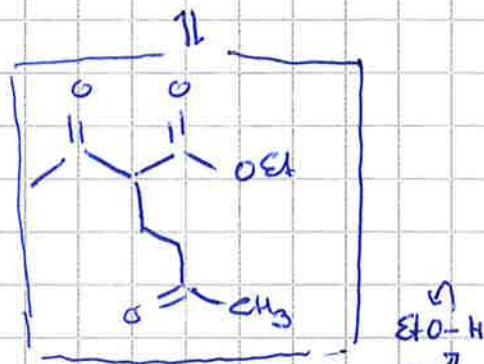
Aldol



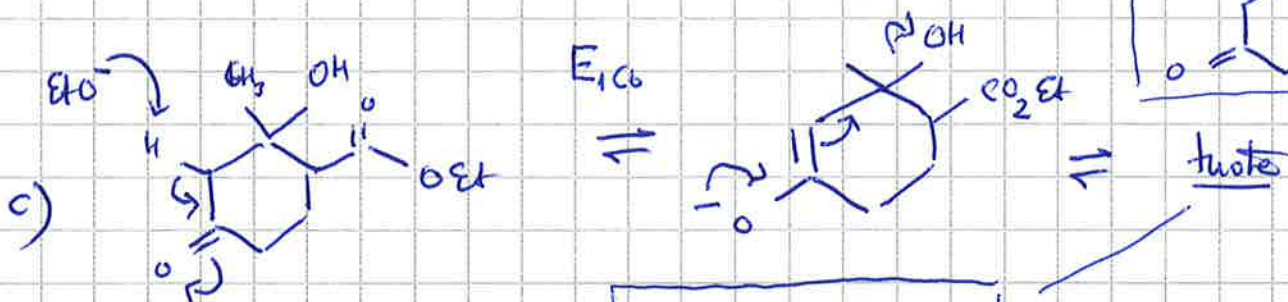
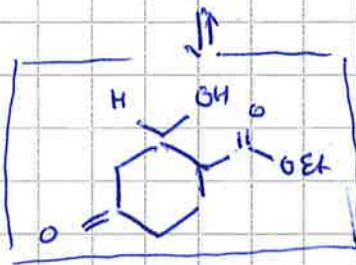
3) Robinsonin anulaatio = Michael reaktio ja aldol (E₁CB reaktio lopuksi)



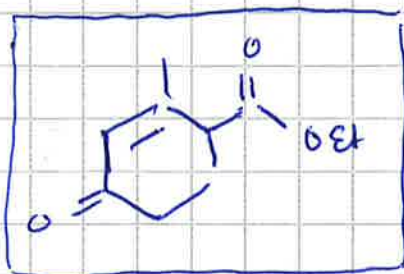
Michael reaktio



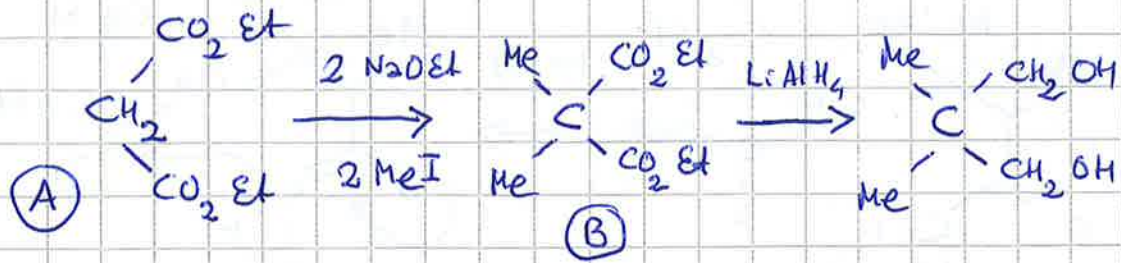
aldol



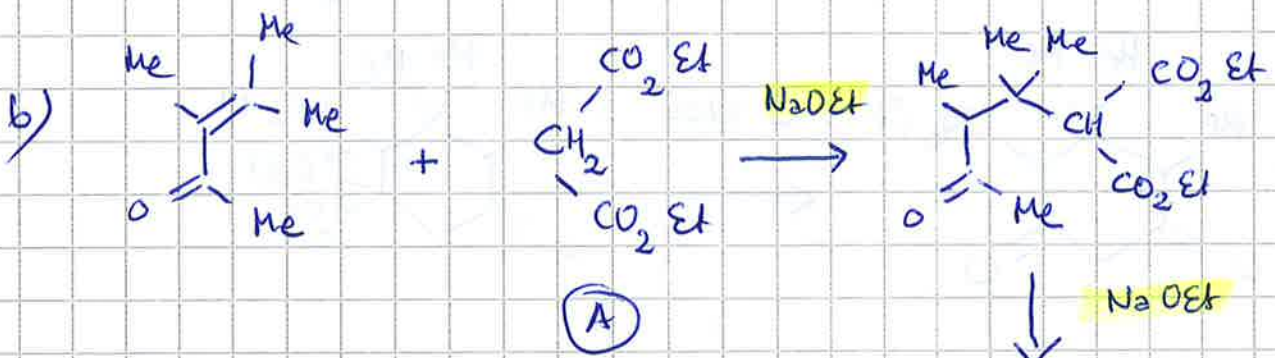
tuote !



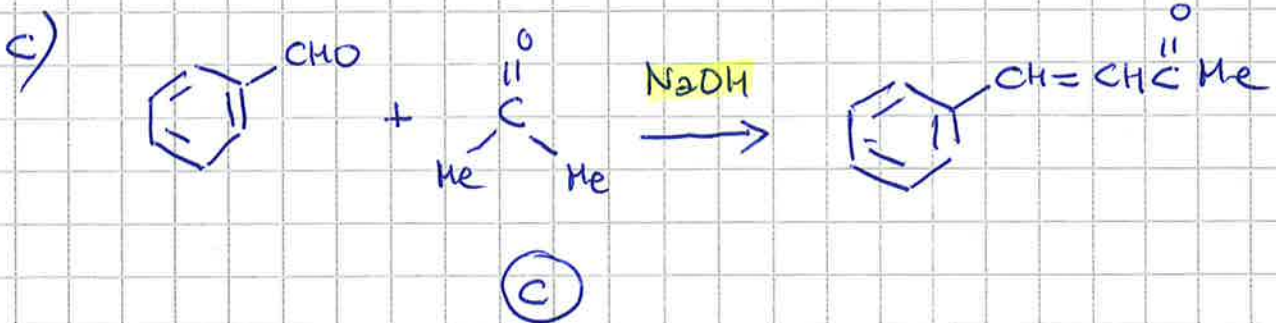
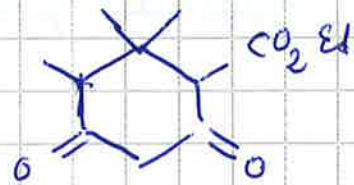
4a)



∴ 2 kappa alkyloni, esteriryhmäs pehlistaji

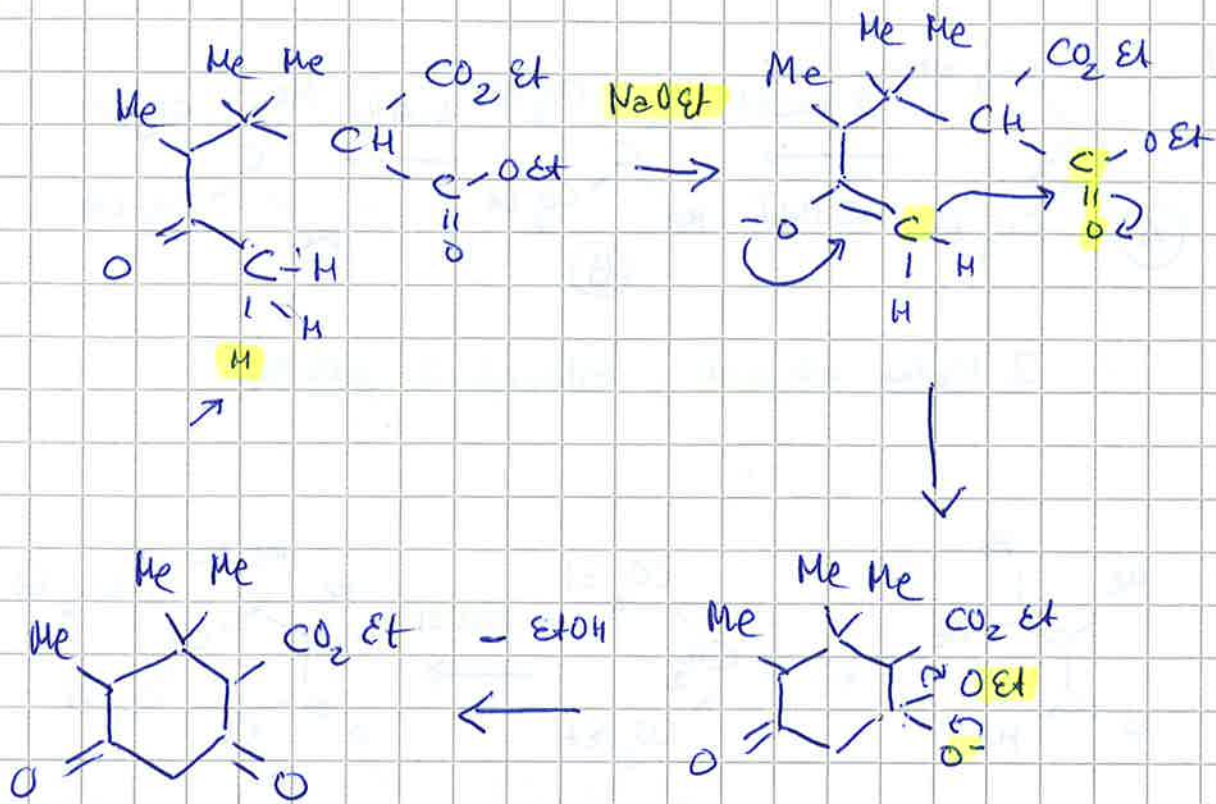


Michael additio + syklistisatio (-EtO⁻)



∴ aldolreaktio ja eliminatio = aldol kondensatio

b) Jättä.



Synteesä - EtOH