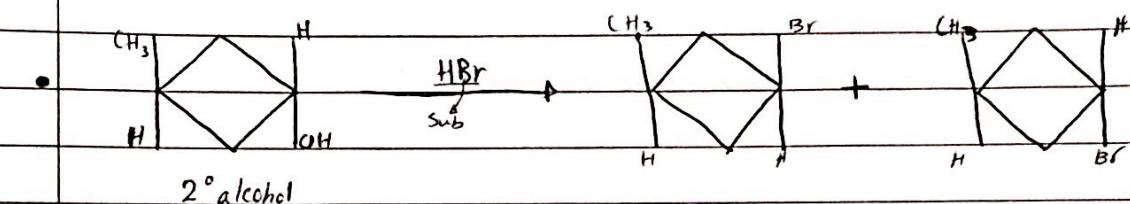
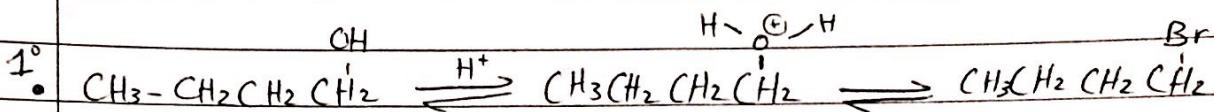
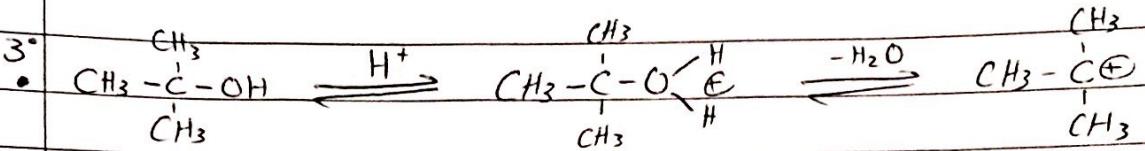
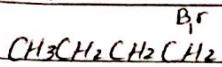
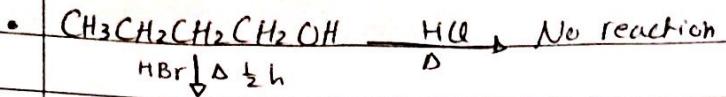
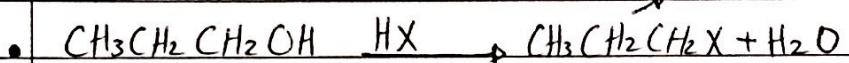


No. _____

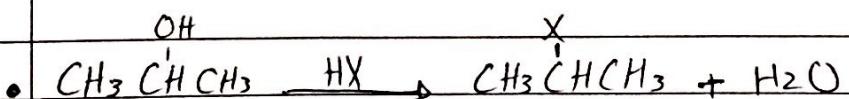


1 alcohol $\rightarrow \text{SN}^2 \rightarrow \text{N}^4 \text{ de niz} \rightarrow \text{Etilen}$



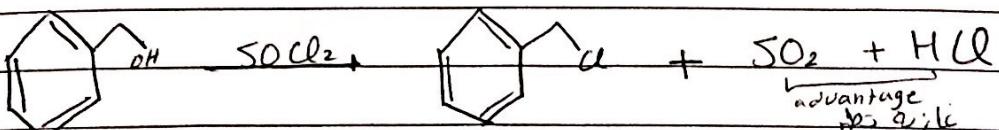
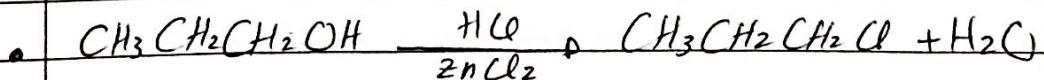
* HF HCl HBr HI All the Same] who is faster?

- Solu: HI is faster



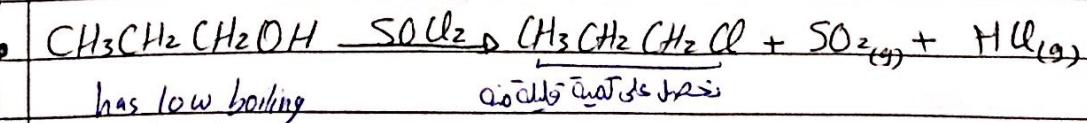
* HF HCl HBr HI All the Same] fastest?

- Solu: $2^\circ \text{ alcohol} \rightarrow \text{SN}' \rightarrow \text{all the same}$



نحوه الـ SOCl_2 *
الـ HgCl_2 *
الـ AlCl_3 *

SOCl_2
Not used
here

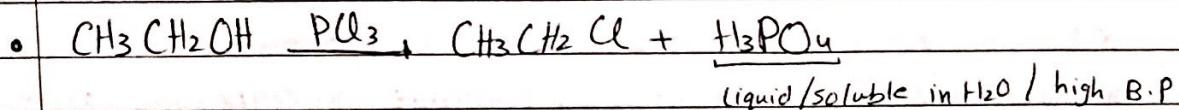
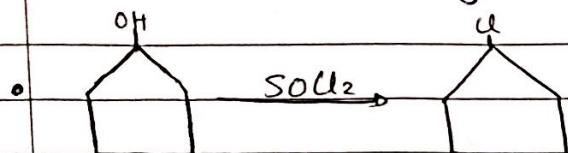


has low boiling point

7

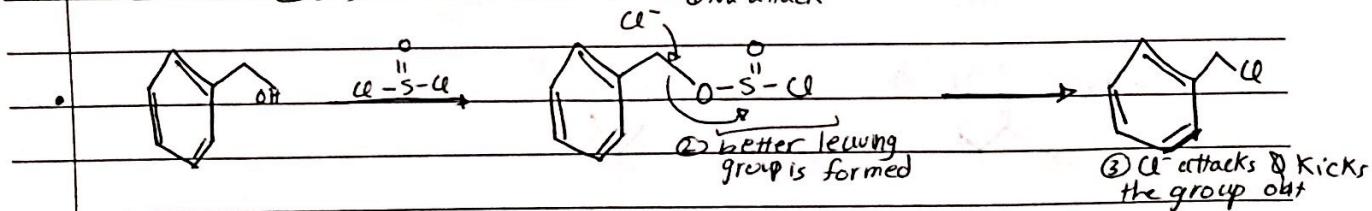
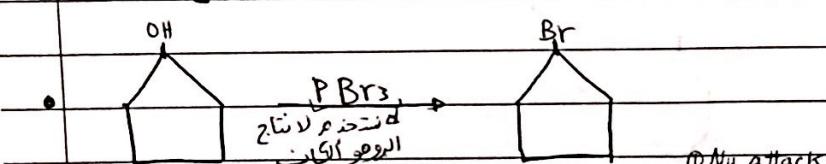
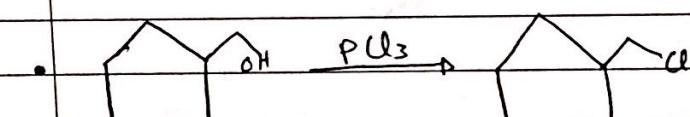
No. _____

* SOCl_2 can't be used with alcohols that has low boiling points because it gives $R-X$ with low boiling point that goes away with $\text{SO}_2 \& \text{HCl}$ gases.

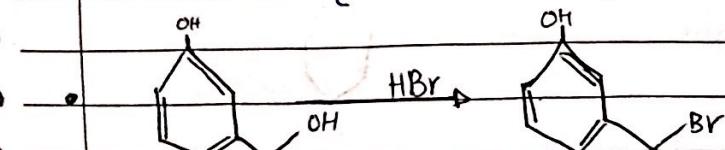


أيضاً الحصول على المركبات الناتجة من عمليات التحويل ينبع من

التركيب الآخر \Rightarrow ينبع قابلية الماء من عدمها.



* $\text{SOCl}_2 / \text{PCl}_3 / \text{PBr}_3$,
 $\xrightarrow{\text{SN2}}$



7.12 Oxidation of alcohols

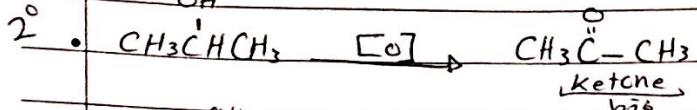
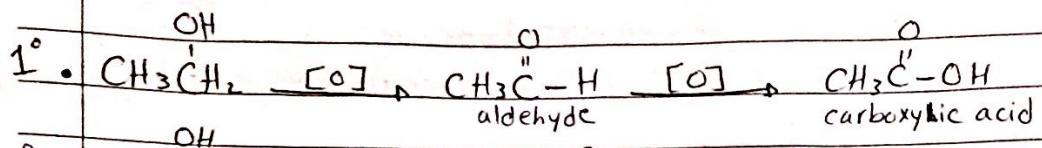
* Signs of Oxidation:

- more O around C

- more H / less O \rightarrow reduction

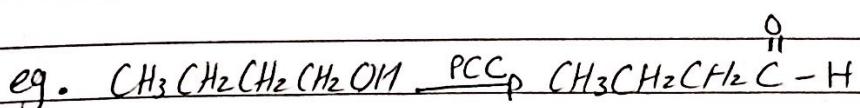
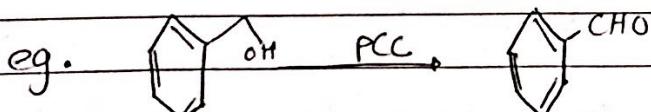
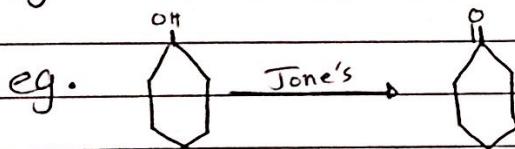
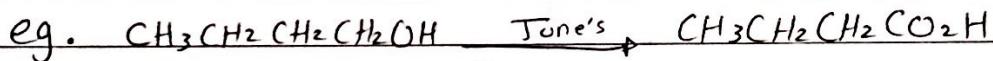
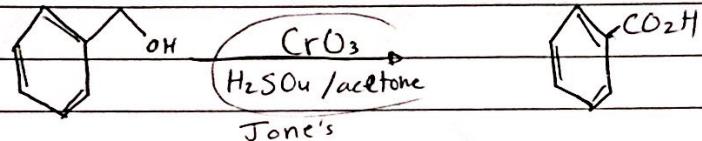
- lower H around C

No. _____

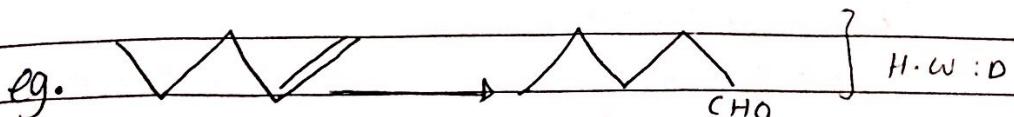
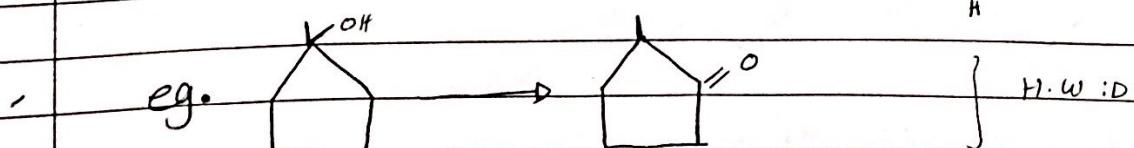
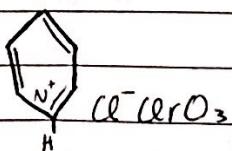


In °
alcohol { * Weak oxidation agent → stops at aldehyde
 * Strong Oxidation agent → continues to carboxylic acid

eg.



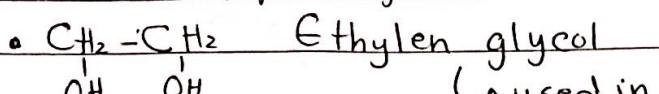
* PCC : Pyridinium chlorochromate



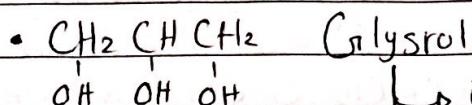
No. _____

7.13 Compounds with more than one hydroxyl group.

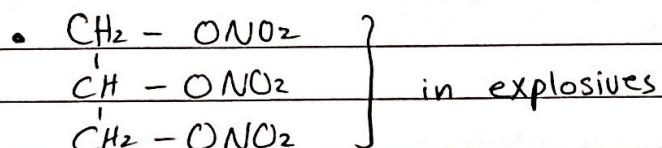
* these compounds in general are used for encapsulation (for drugs)



(Used in antifreeze)



↳ in making soap, beauty products
↳ as sugar for people with diabetes

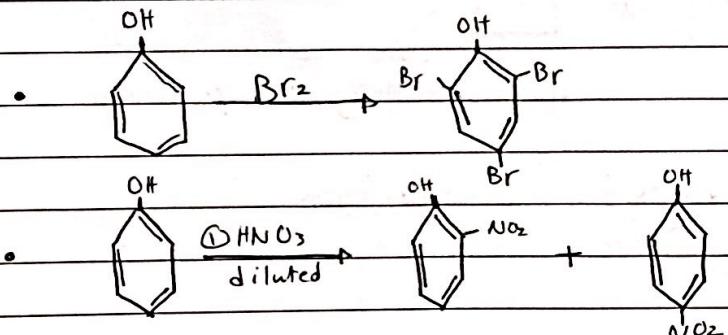


} in explosives

7.14 Phenols

* Electrophilic aromatic Sub

* extremely reactive

② T must be $< 60^\circ\text{C}$

① + ② conditions

di/tri nitration is very difficult to stop *

& this chapter is over ;P

BONNE CHANCE ♀