No.

CH.10 Carboxylic acids

* Good News :D → ~~naming carboxylic acid derivatives~~ , ~~10.3~~ , ~~10.5~~ , ~~10.11~~ , ~~10.22~~

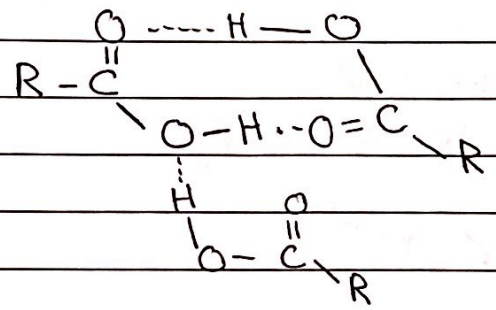
$-CO_2H$, $-COOH$, $-\overset{O}{\overset{\|}{C}}-OH$

10.2 Physical Properties

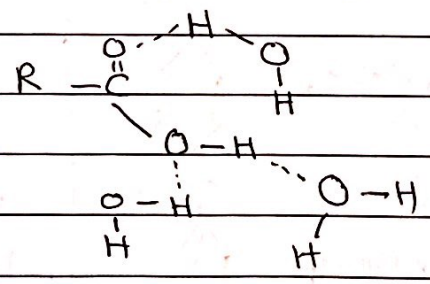
[1] They have the highest B.P in all organic groups.

[B.P] alkane = $R-O-R$ < $-\overset{O}{\overset{\|}{C}}-$ < $R-OH$ < $R-CO_2H$

because ① They form strong hydrogen bonds
② can form hydrogen bonding from different sides.
③ Shape of carbonel group is planar which utilizes less steric strain which lets molecules fit more causing stronger hydrogen bonds.

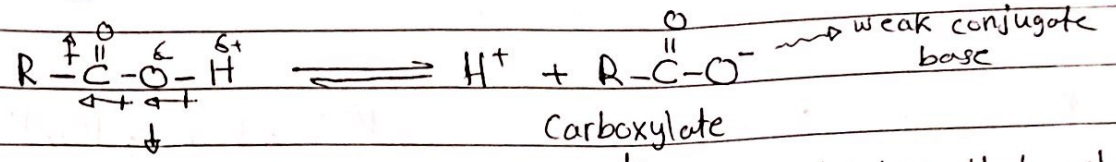


[2] They have high solubility in water for the same reasons.



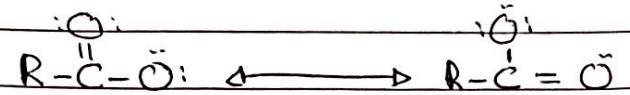
No.

* They partially dissociate in water



① high polarity

② has resonance structure thats why its stable



* stabe anion due to (R) effect → shift in eq → more H^+ → acid

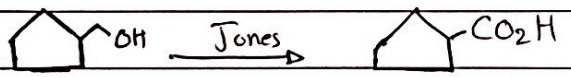
	CH_3OH		$CH_3C(=O)-OH$	HCl	$F_3CC(=O)-OH$
pKa	16	10	4.76	−7	0.23

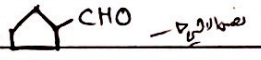
generally weak acids / stronger than Phenols & alcohol

* يأثر على قوة المركب كحمض نفس العوامل المؤثرة على الأحول

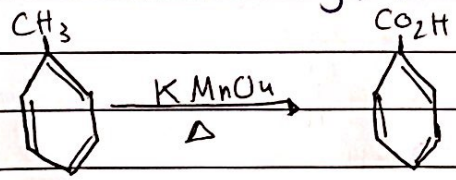
10.7 Preparation of carboxylic acids

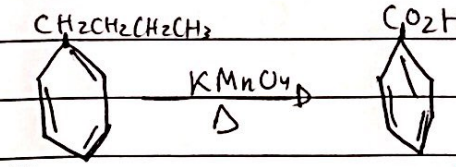
[1] Oxidation of 1° alcohol & aldehyde

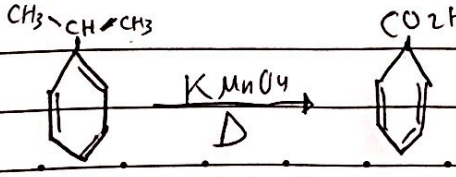
- 1° alcohol 

- aldehyde 

[2] Oxidation of alkyl substituted benzene

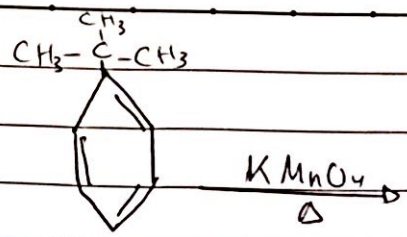
- 

- 

- 

→ The carbon attached to benzene is the one Oxidized (benzylic carbon)

No.



3° carbon can't be oxidized so the benzene ring will be oxidized

* Carbon connected to benzen is oxidizied
* This carbon must have at least 1 carbon