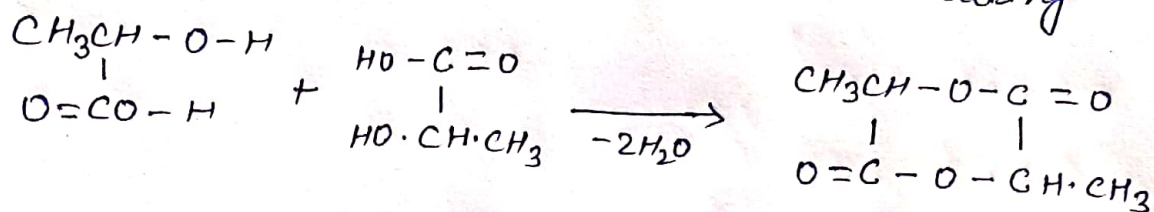


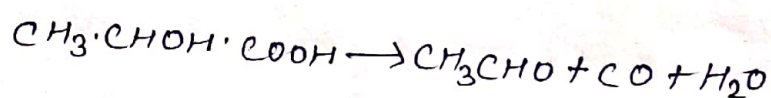
Q What is the action of (i) heat (ii) $KMnO_4$ (iii) H_2SO_4 (iv) I_2 and alkali on lactic acid?

Ans Action of heat: It forms lactide on heating

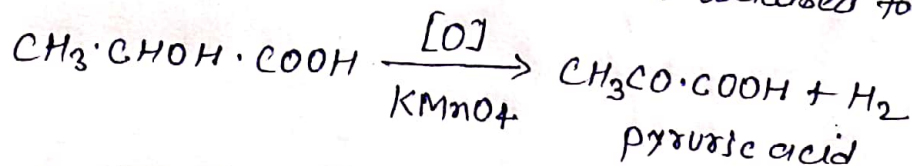


lactide

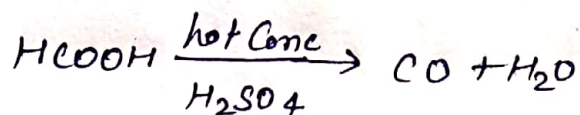
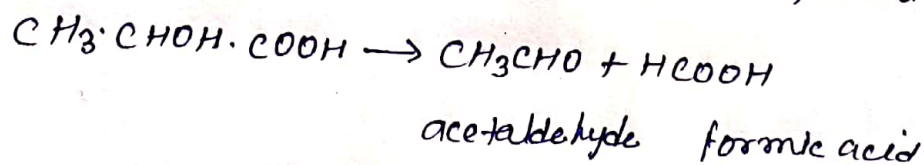
A portion of lactic acid also breaks up to acetaldehyde and CO on heating.



(i) Action of $KMnO_4$: Lactic acid is oxidised to pyruvic acid



(ii) Action of H_2SO_4 : When heated to 130° with dil H_2SO_4 lactic acid decomposes to acetaldehyde and formic acid



Lactic acid is decomposed by hot Conc. H_2SO_4 to CH_3CHO , CO & H_2O

(iv) Action of iodine and alkali: Since it has $\text{CH}_3\cdot\text{CHOH}$ group, it gives iodoform on treatment with I_2 and warm alkali.

