ORGANIC NAMED REACTION

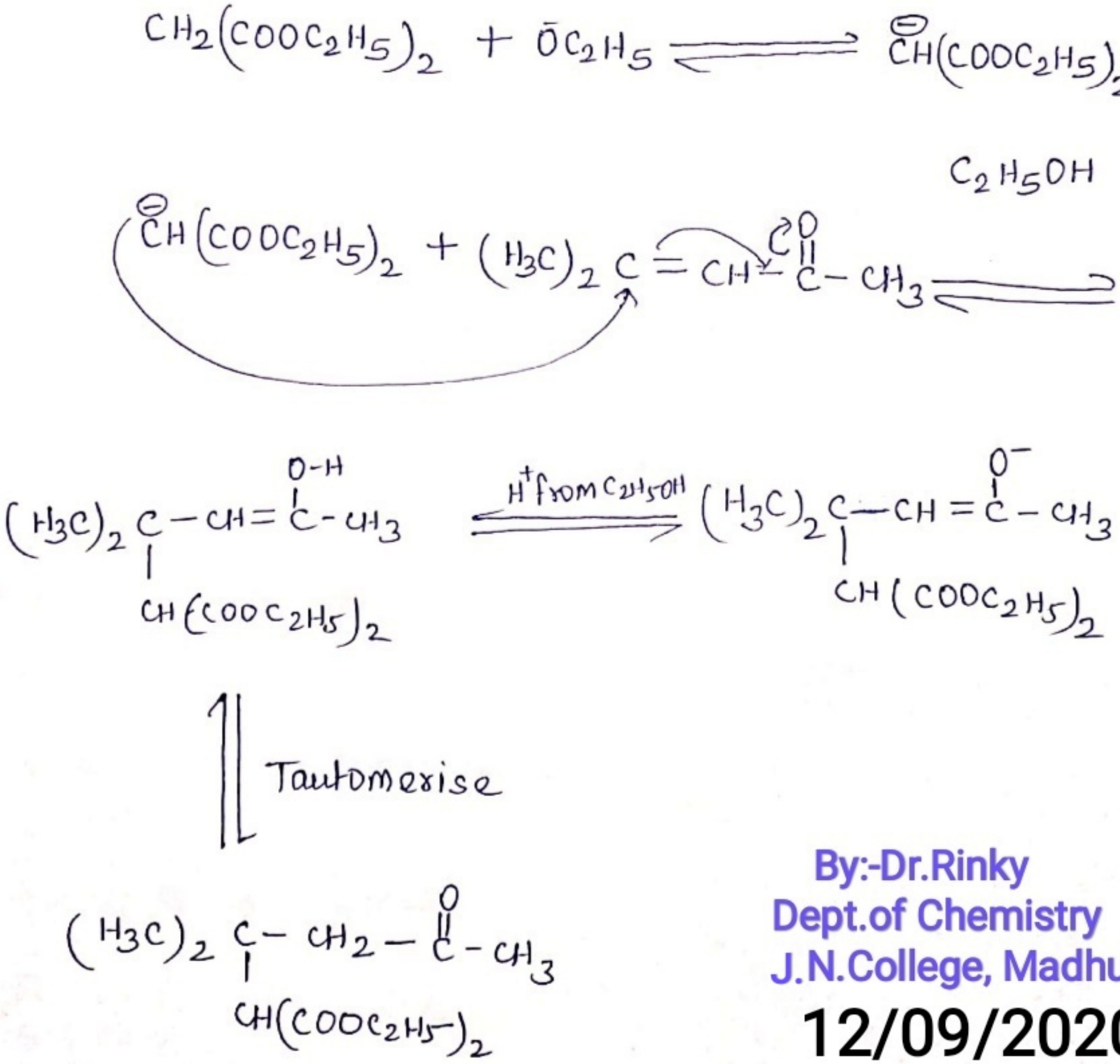
DEGREE-III (H) , PAPER-VII , LECTURE-4

MICHAEL ADDITION REACTION (CONTINUED..)

SYNTHETIC APPLICATION

(Continued..)

3. Synthesis of Dimedone : 12/09/2020



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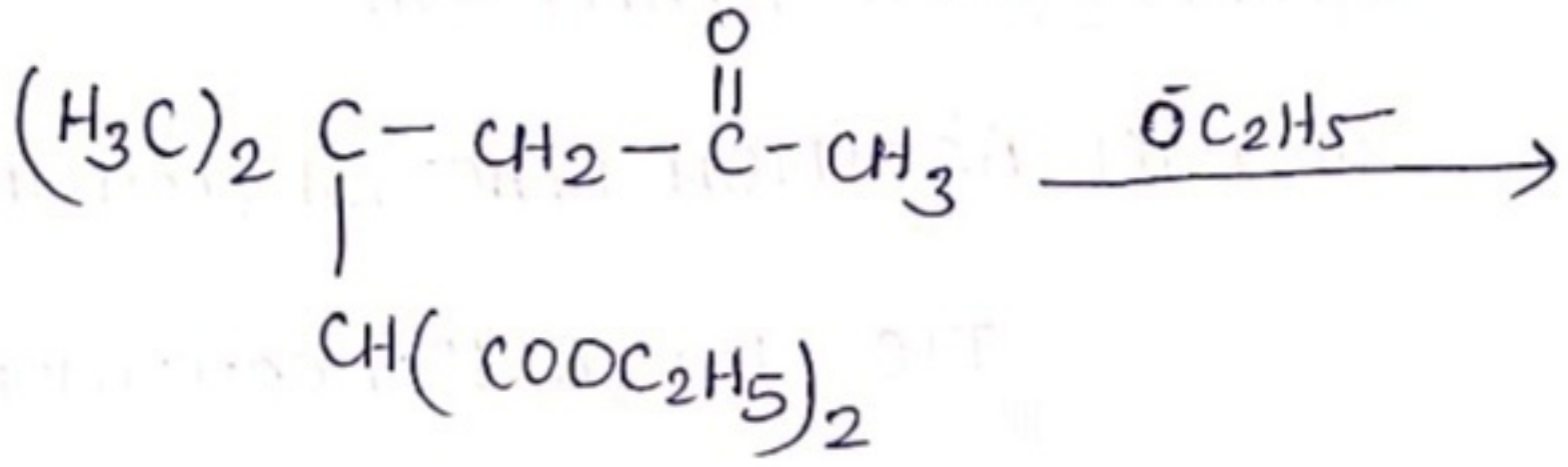
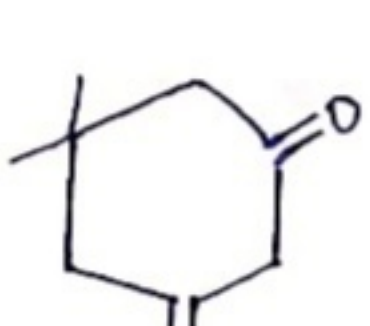
12/09/2020

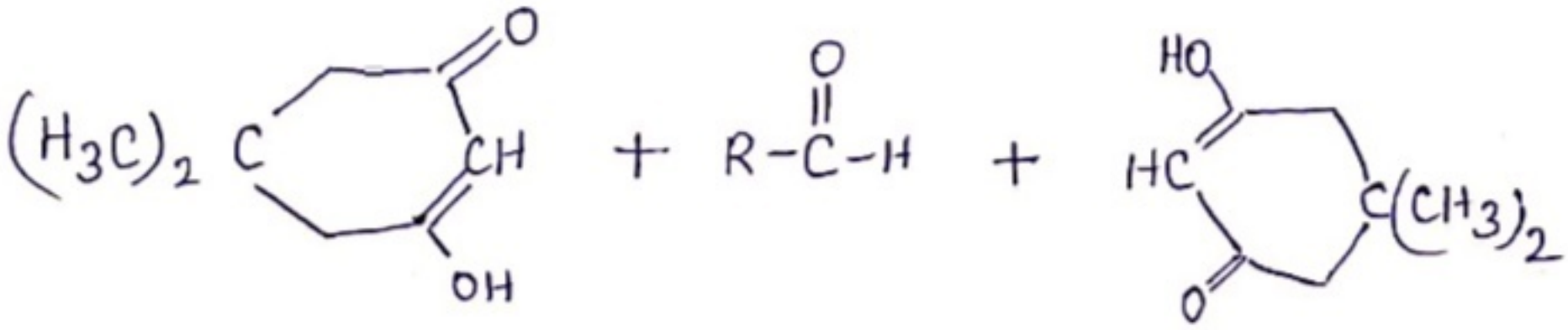
* Michael addition is followed by an internal claisen condensation, the product obtained is dimedone.

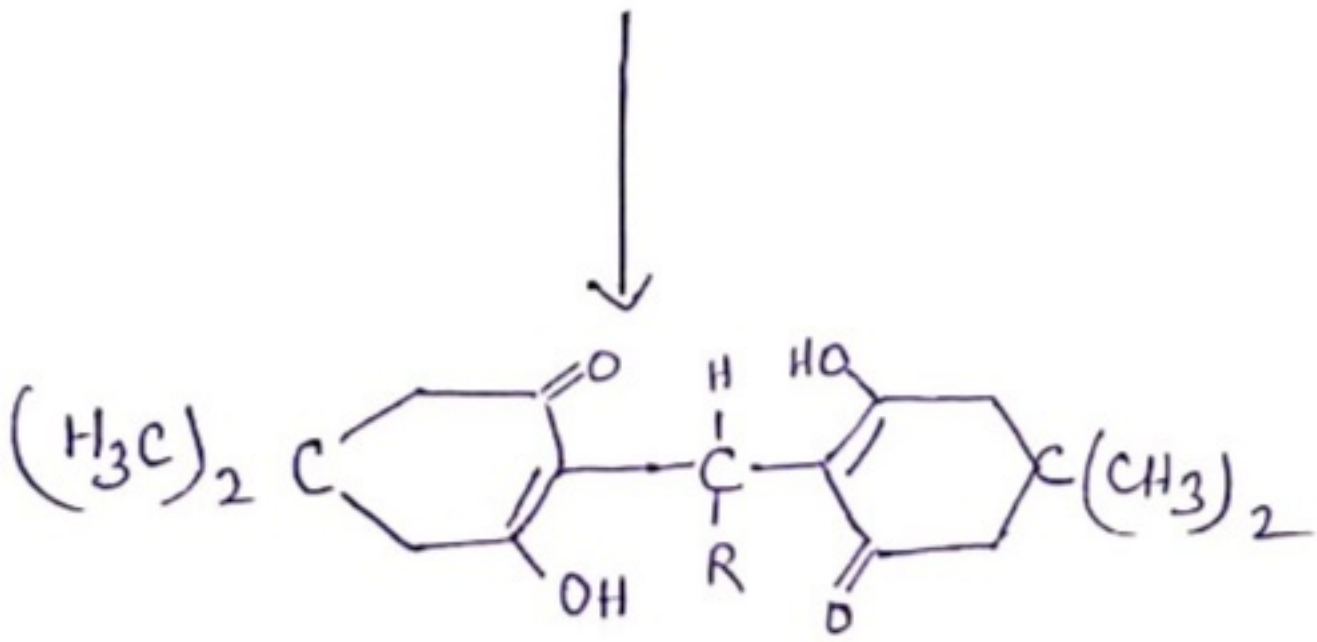




Dimedone

* Dimedone is also employed for the separation of aldehydes from ketones because it reacts only with aldehydes.





* Reaction with formaldehyde is quantitative and hence, the reagent is used for the quantitative estimation of formaldehyde.

4. Synthesis of Cyano & Nitro Compounds

ⓐ $HCN + (H_3C)_2C = CH - NO_2 \xrightarrow[(CH_2OCH_3)_2]{KOH} (H_3C)_2\underset{\underset{CN}{|}}{C} - CH_2 - NO_2$

ⓑ $CH_3NO_2 + H_3C - CH = CH - COOC_2H_5 \xrightarrow{C_2H_5ONa} H_3C - \underset{\underset{CH_2NO_2}{|}}{CH} - CH_2 - COOC_2H_5$

To be continued in next lecture..