1.

Previous Year Question

(with answer)

Degree-I (Hons.) ,11/11/2020

Revision Notes

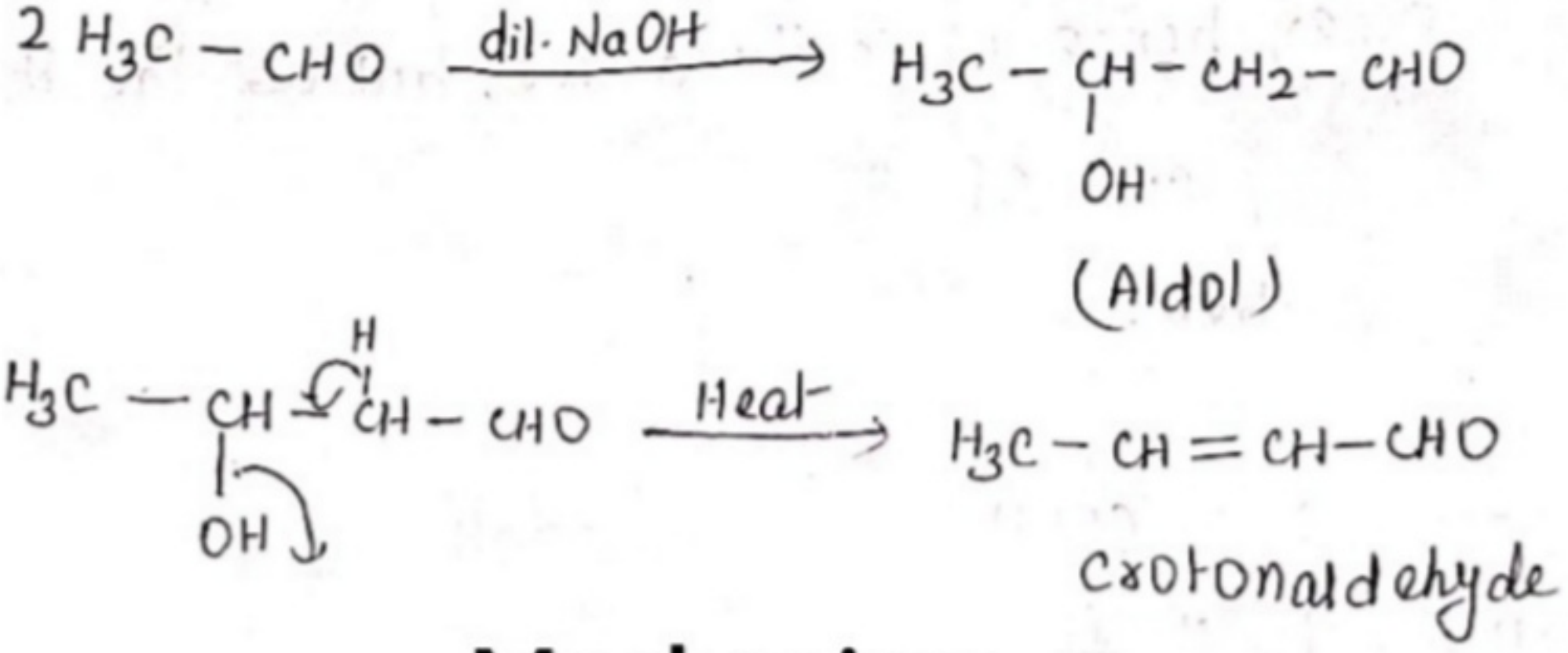
a. Acetaldehyde undergoes aldol condensation.

Ans. Aldol condensation reaction is given by aldehyde or ketone having α-hydrogen.

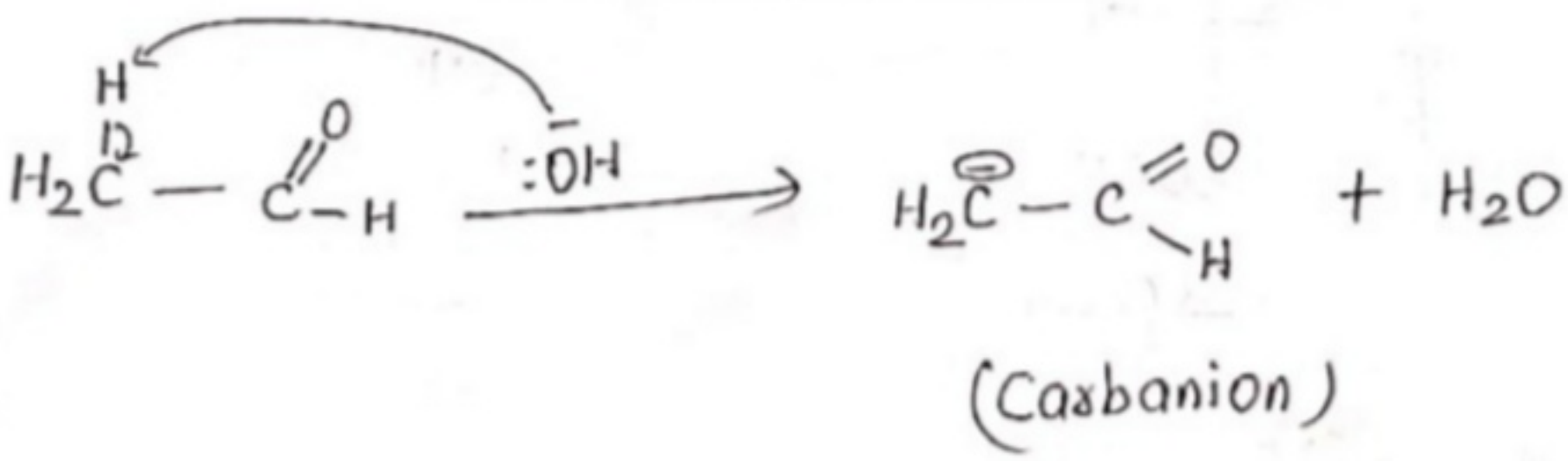
Aldehyde or ketones having α-hydrogen when treated with dil. alkali it produces β-hydroxy aldehyde, or β-hydroxy ketone. On Heating it produce α, β-unsaturated aldehyde or ketone.

This reaction is called aldol condensation reaction.

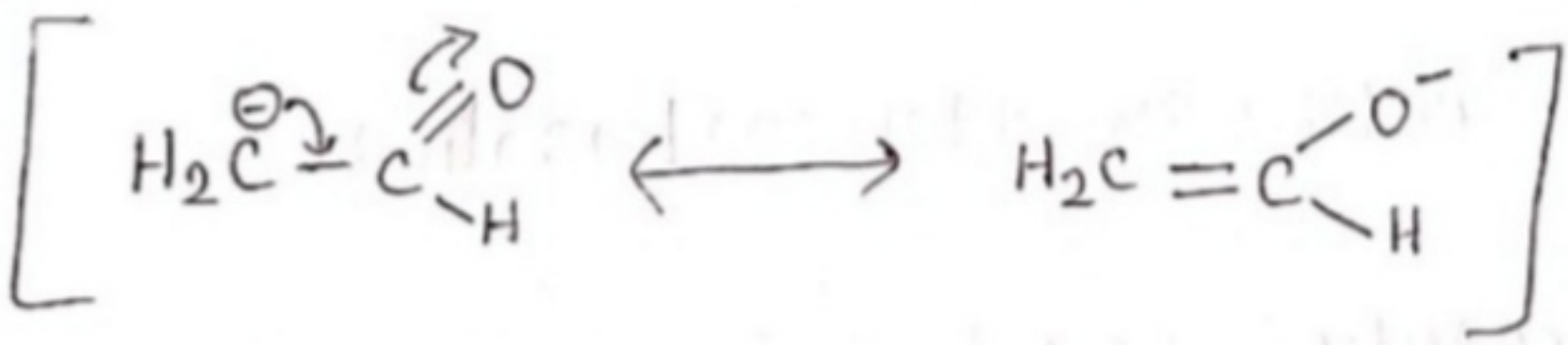
* Acetaldehyde ($H_3\overset{\alpha}{C} - CHO$) having $3\ \alpha$-H, hence they easily show aldol condensation.

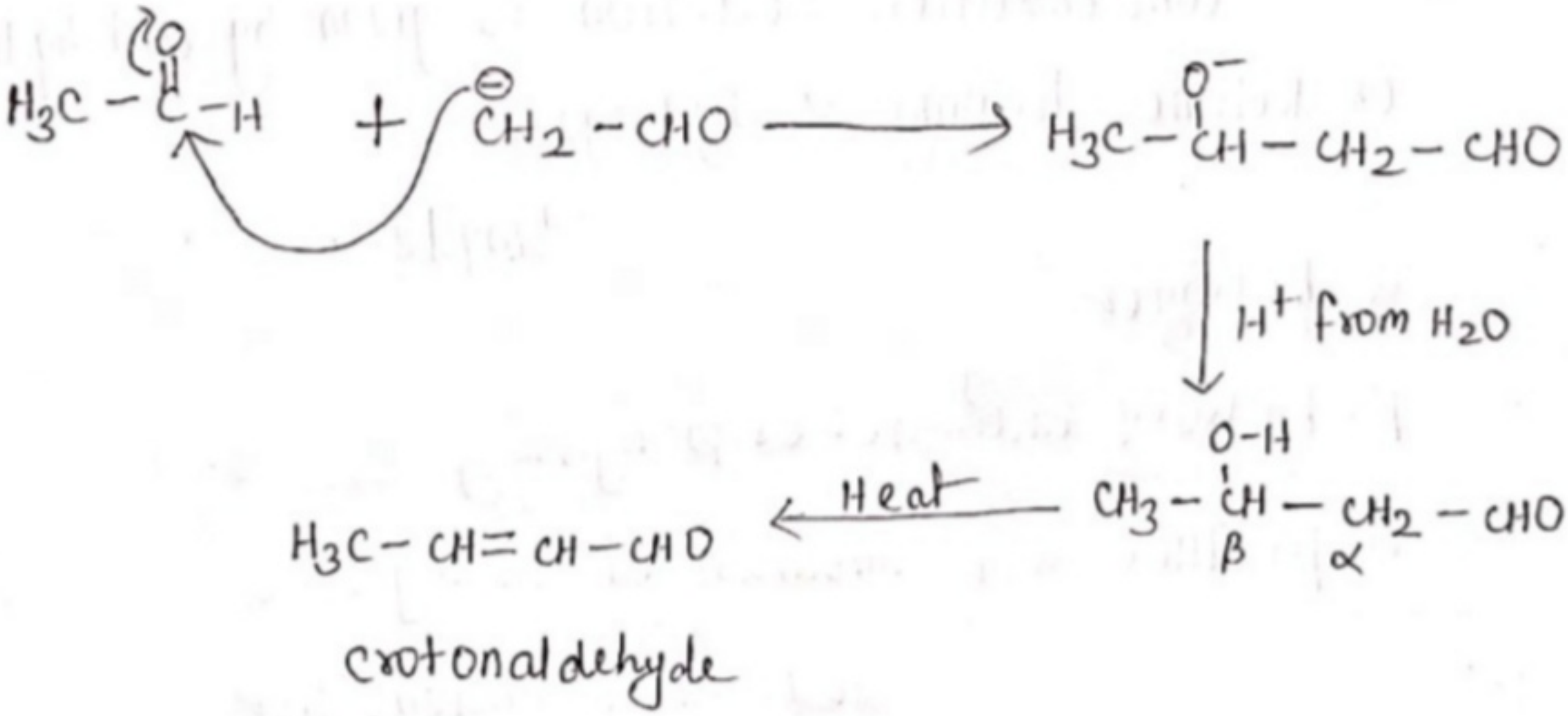


Mechanism



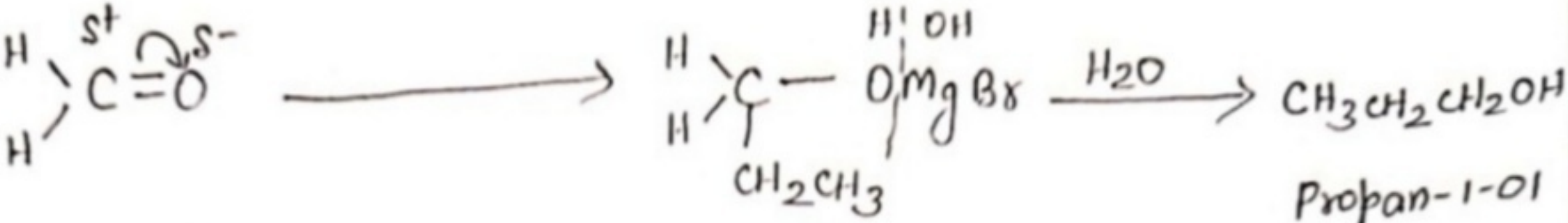
* Carbanion is resonance stabilised.





b. Formaldehyde is treated with ethyl magnesium bromide. 3.

Ans. When Formaldehyde is treated with ethyl magnesium bromide followed by hydrolysis it produces propan-1-ol.



Completed

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