

POLYHYDROXY COMPOUNDS

2021-2024

Lecture-7

19/01/2022

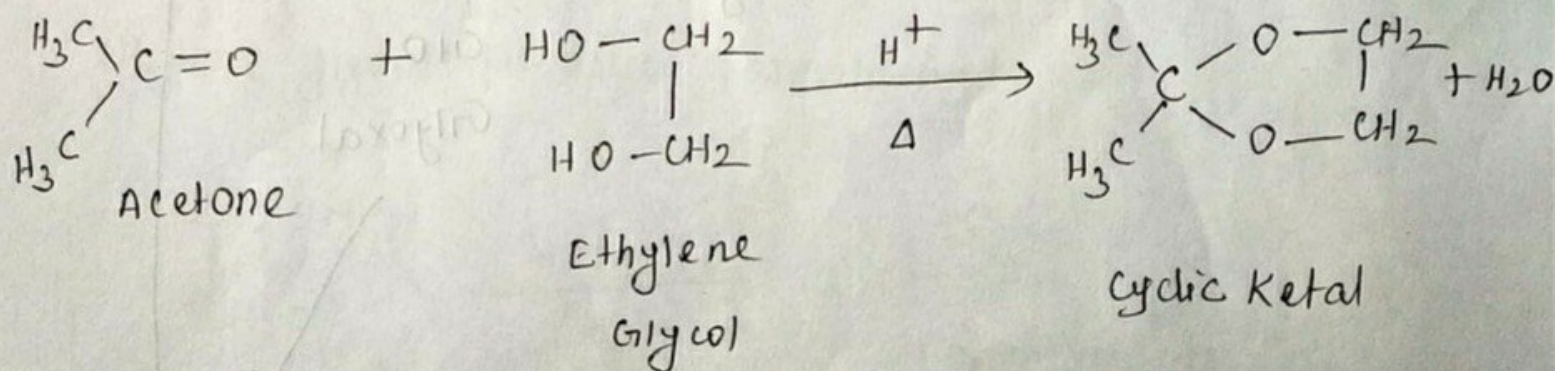
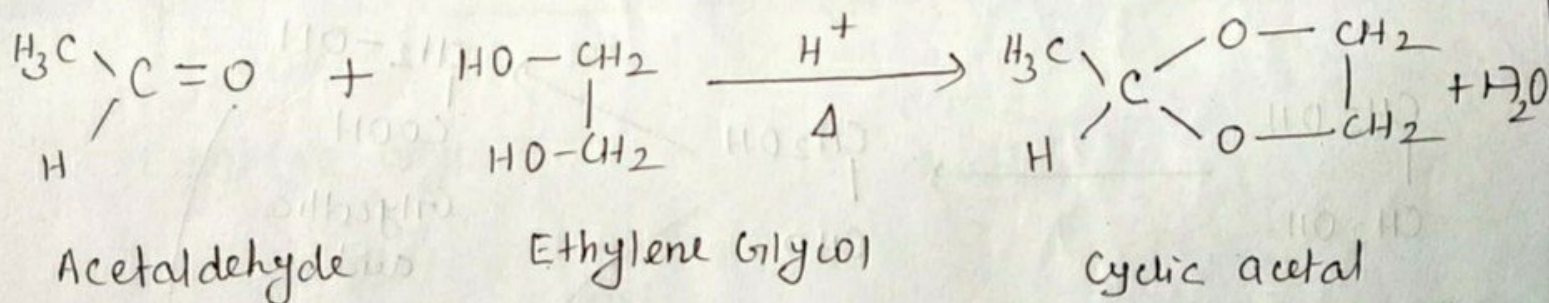
Deg-I Hons., Paper-II Group-B Ch-3

Chemical Properties Of Ethylene Glycol

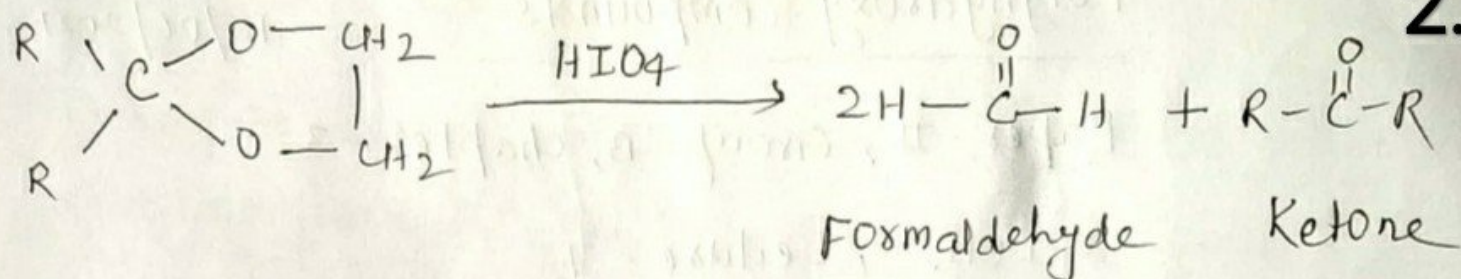
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Reaction with Aldehydes or Ketones

Ethylene glycol condenses with aldehydes or ketones in the presence of sulphuric acid to yield cyclic acetals or ketals.



* The carbonyl group can be regenerated by the action of periodic acid on the ester.



Oxidation (i)

The oxidation of ethylene glycol with HNO_3 (Nitric acids) yields a number of substances as one or both the primary $-\text{OH}$ groups may be oxidised first to aldehyde and then Carboxylic acid groups.

* The Oxalic acid is Obtained as the final product of Oxidation.

