

CARBOXYLIC ACID & DERIVATIVES

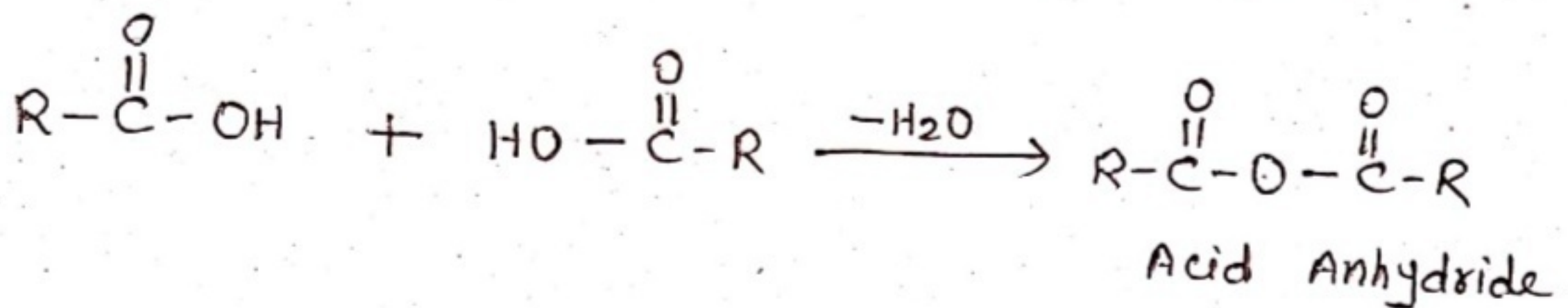
30-04-2020 (Lecture-7) Degree-I (Hons.)
P-II, Ch-6, G-'B'

TOPIC - PREPARATION, PROPERTIES AND USES OF ACID ANHYDRIDES.....\$

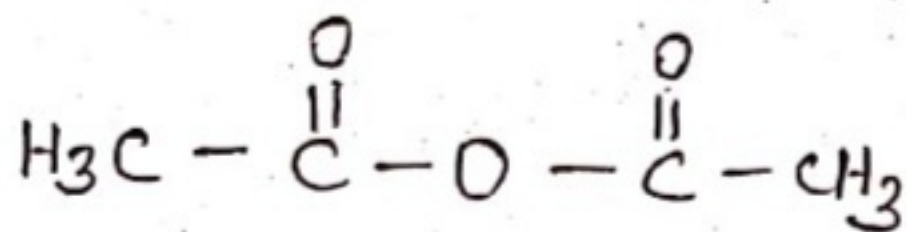
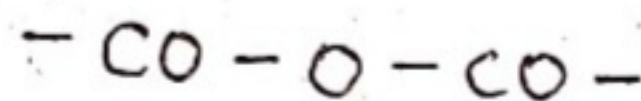
By-Dr.Rinky
Dept.of Chemistry
J.N.College,MDB

ACID ANHYDRIDES

The compounds derived by loss of a water molecule between two molecules of a carboxylic acid are called Acid anhydrides or simply Anhydrides.



Functional Group



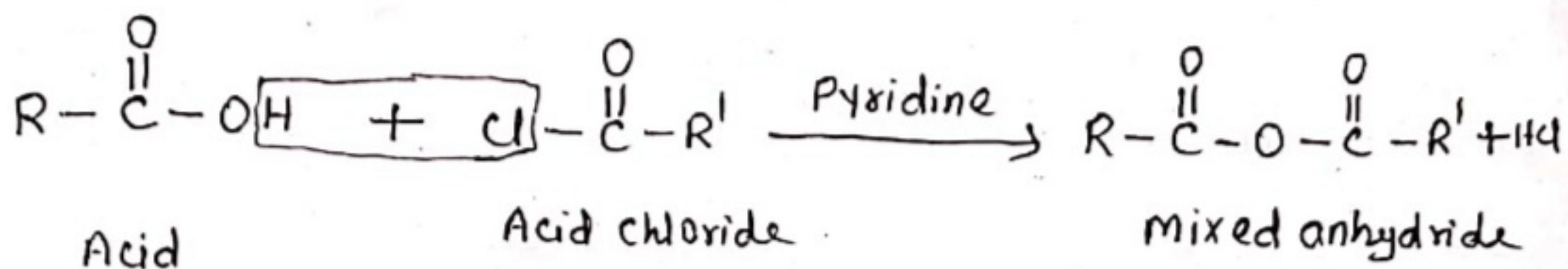
common name — Acetic anhydride

IUPAC name — Ethanoic anhydride.

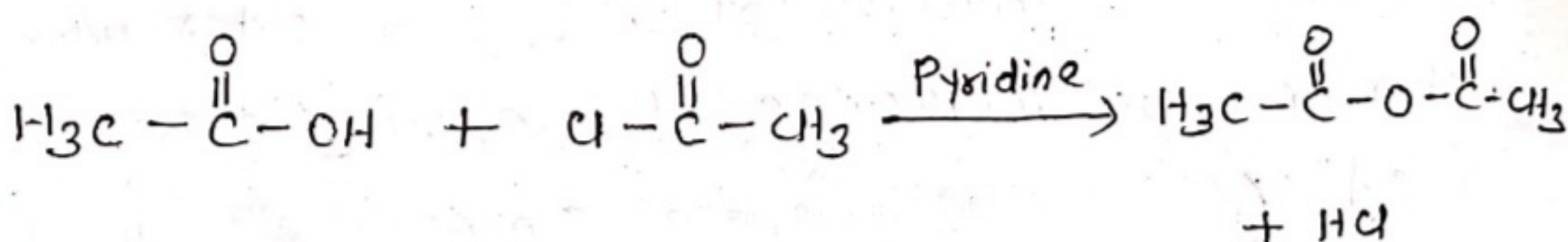
* Anhydrides derived from two molecules of different acids are called Mixed Anhydrides.

METHODS OF PREPARATION

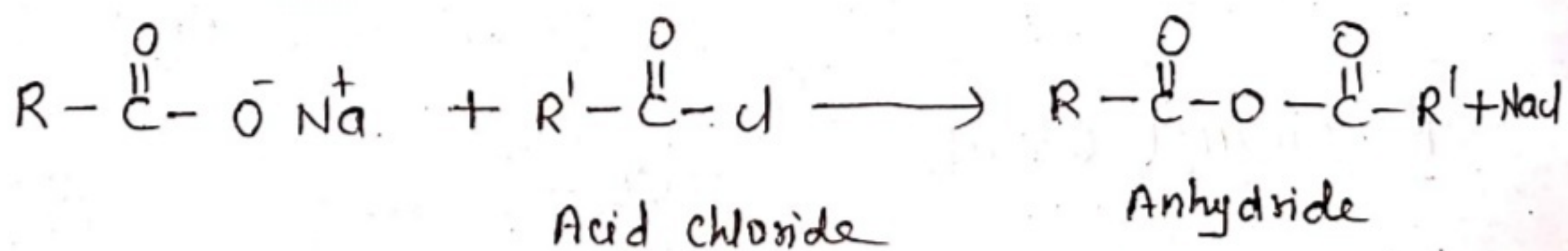
By Reaction of acid halides with a Carboxylic Acid :



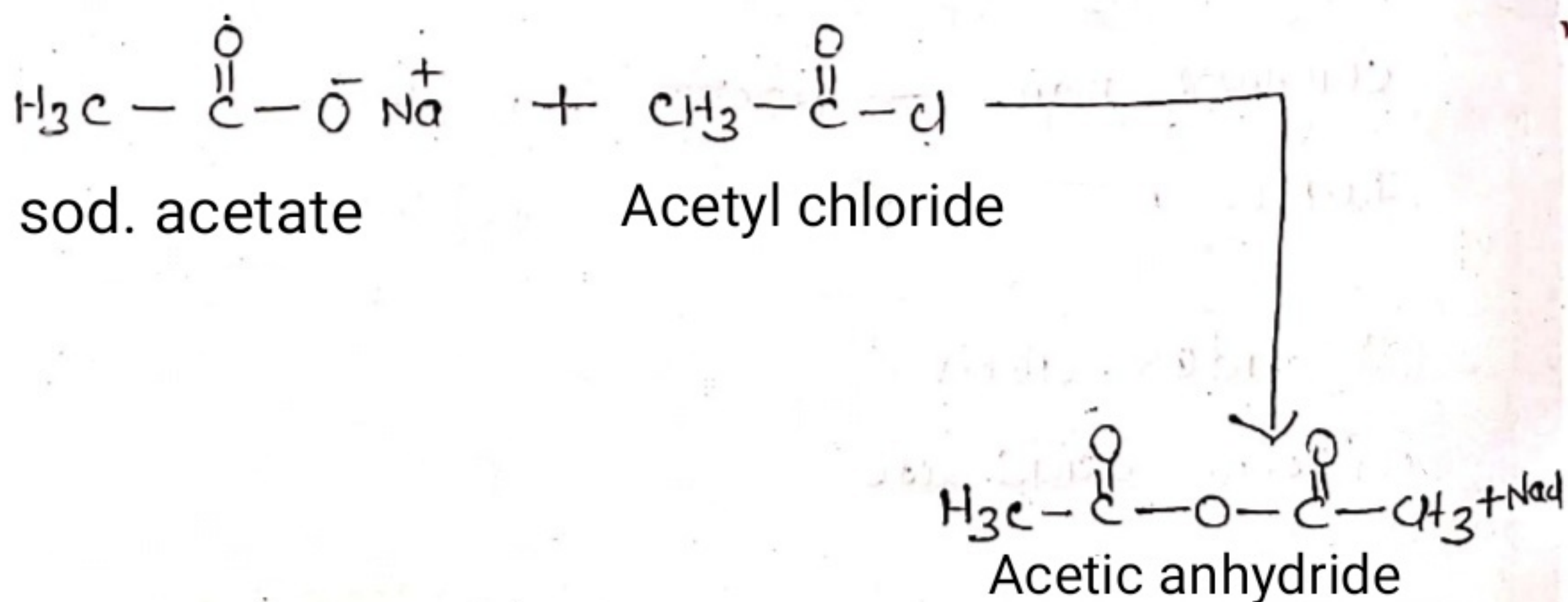
example ;



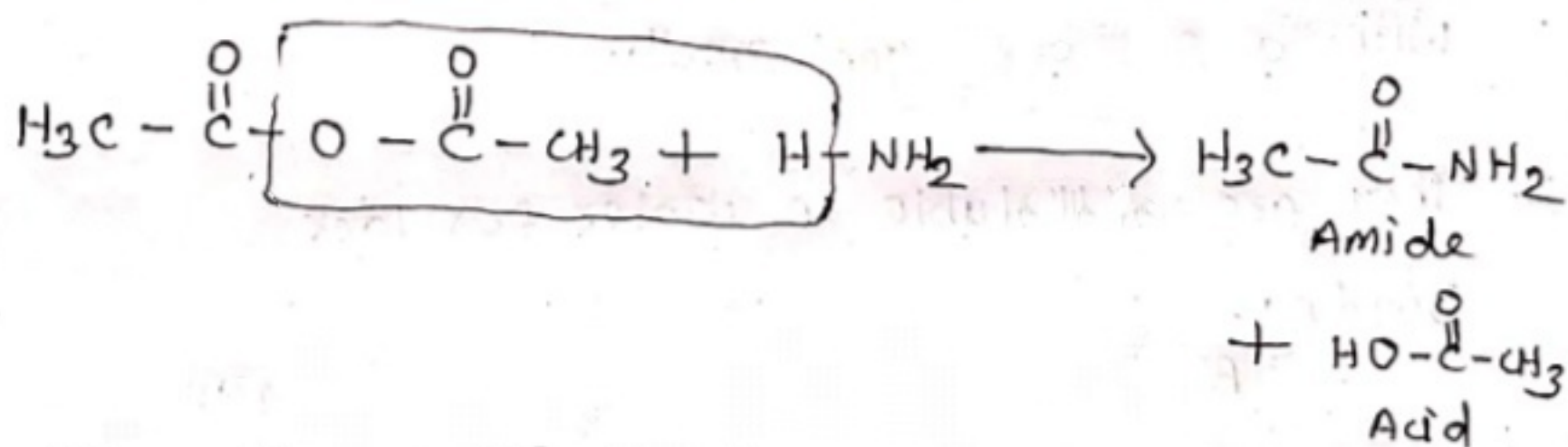
By Reaction of acid halides with salt of a Carboxylic Acid :



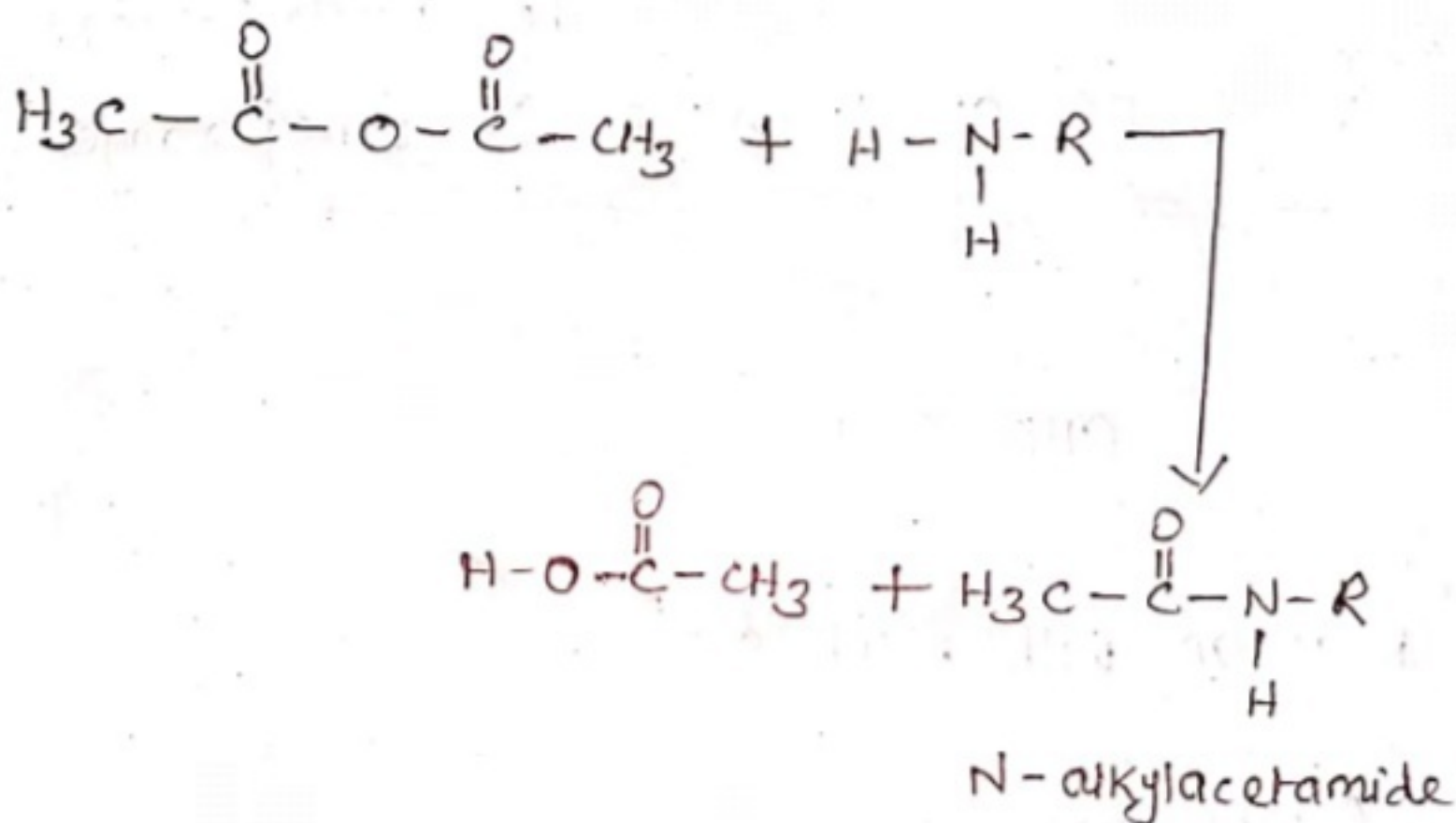
example ;



Amide are formed.

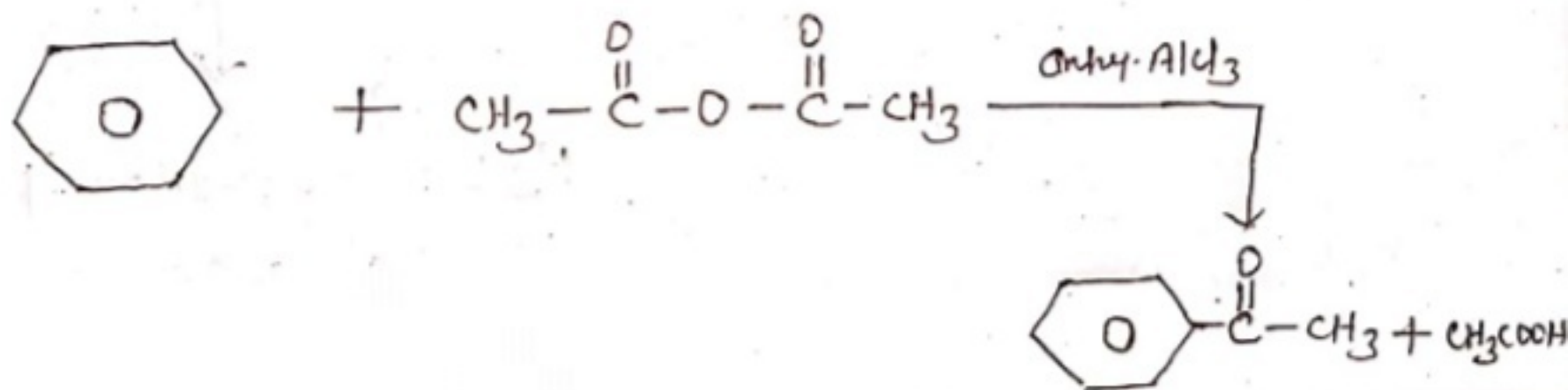


3. Reaction with Amines



4. Reaction with benzene in the presence of AlCl₃.

Ketones are formed. This is called Friedel craft's reaction



Acid anhydrides completed..

By -Dr.Rinky.
Dept.of Chemistry.
J.N.College,
Madhubani.