

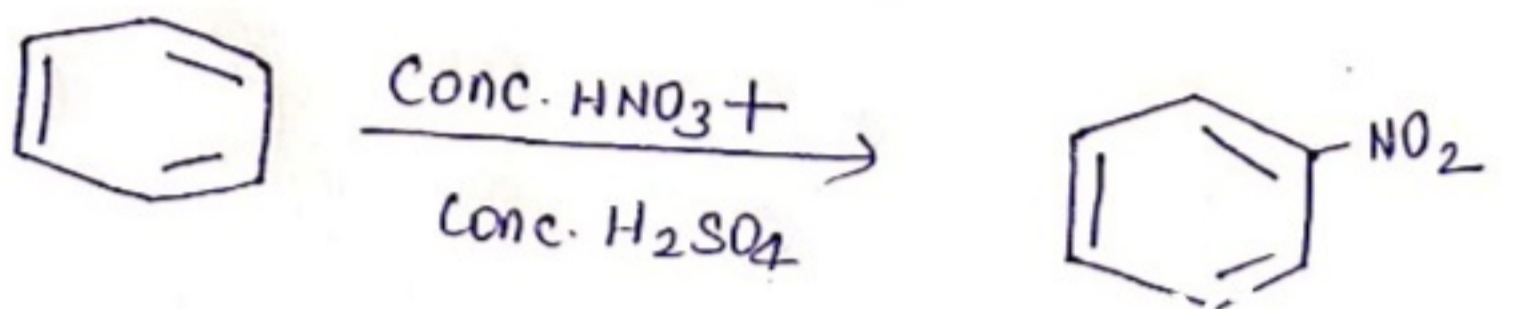
Important Question 1.

(From Previous Year)

Degree-II(H) ,29/08/2020

Q. Discuss the mechanism of the following :

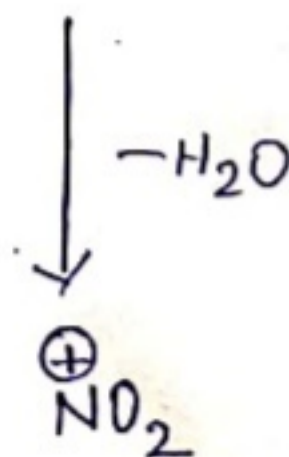
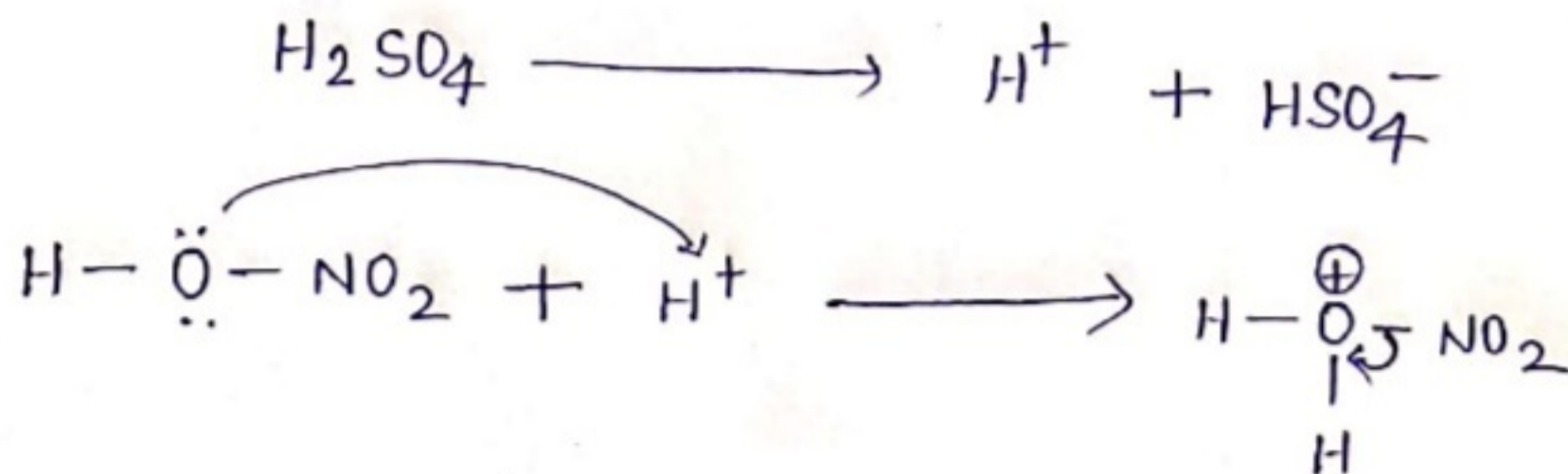
1. Nitration of Benzene



Mechanism

Nitrobenzene

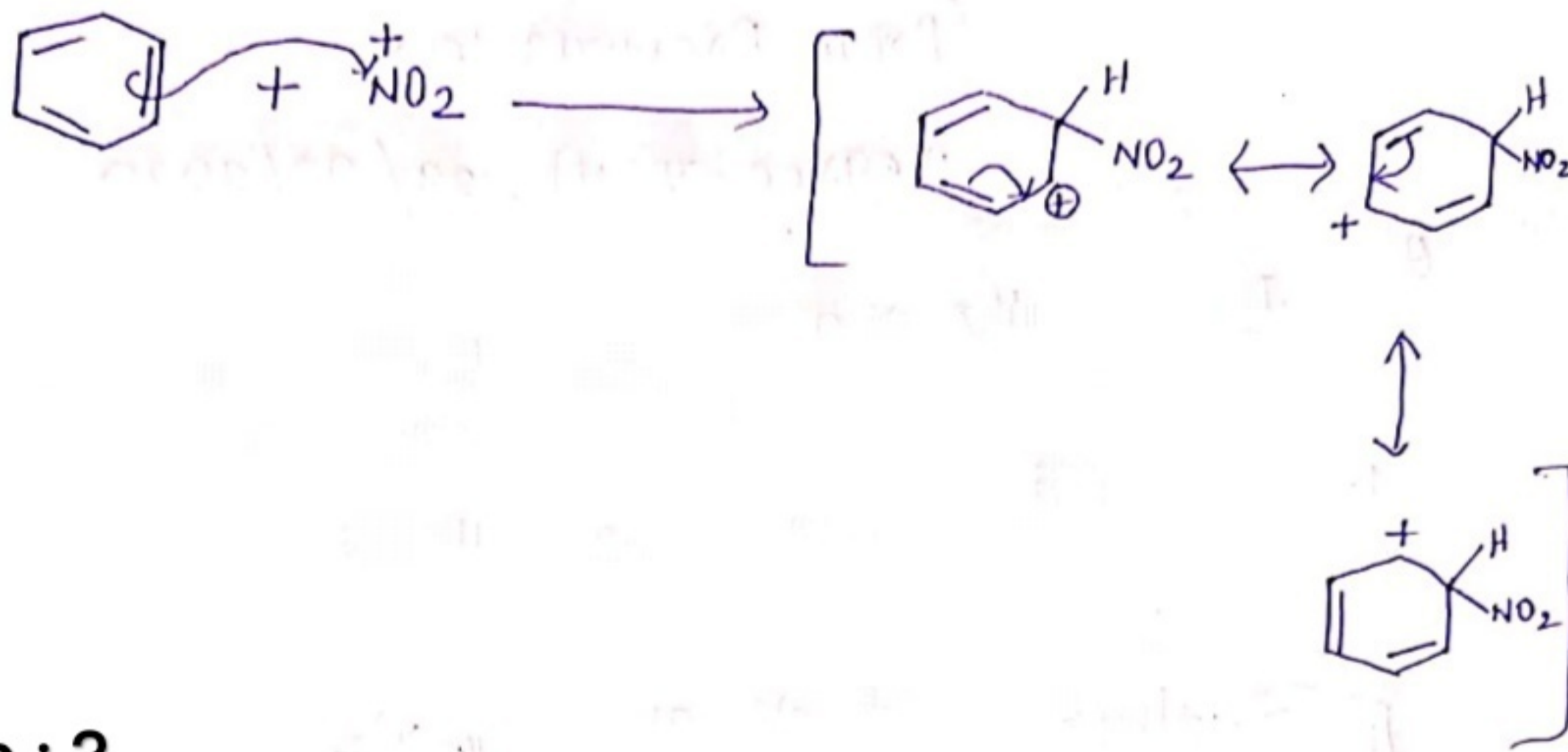
Step : 1 Generation of NO_2^+



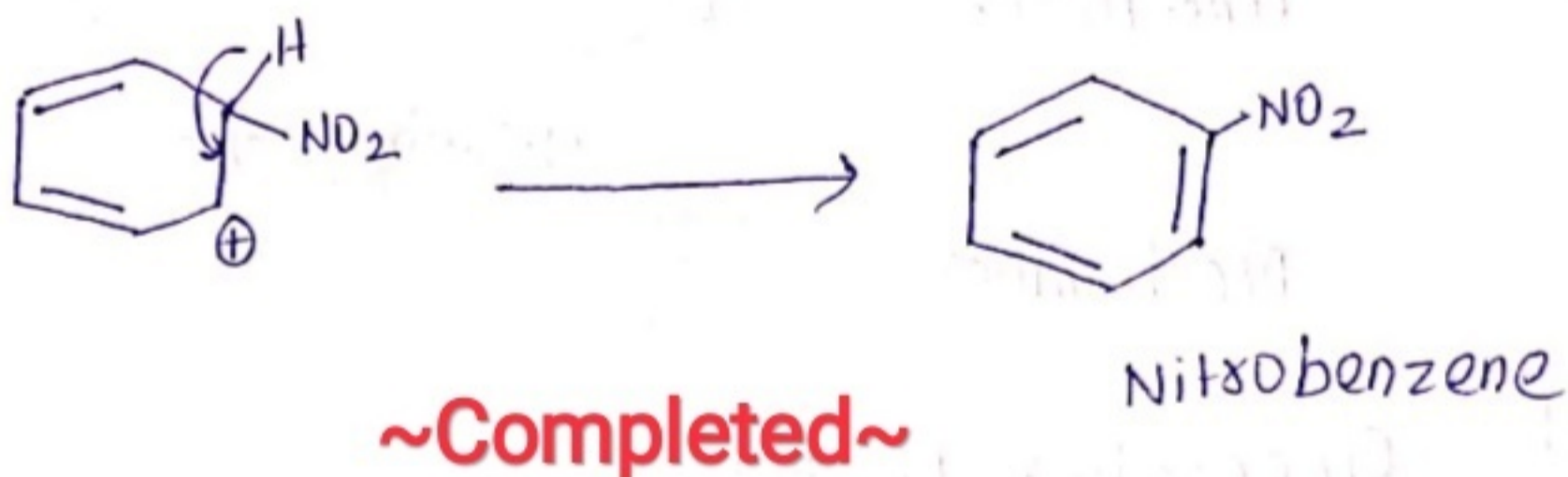
By-Dr. Rinky
Dept. of Chemistry
J.N.College
Madhubani

Step : 2 Attack of $\overset{+}{\text{N}}\text{O}_2$ on benzene ring

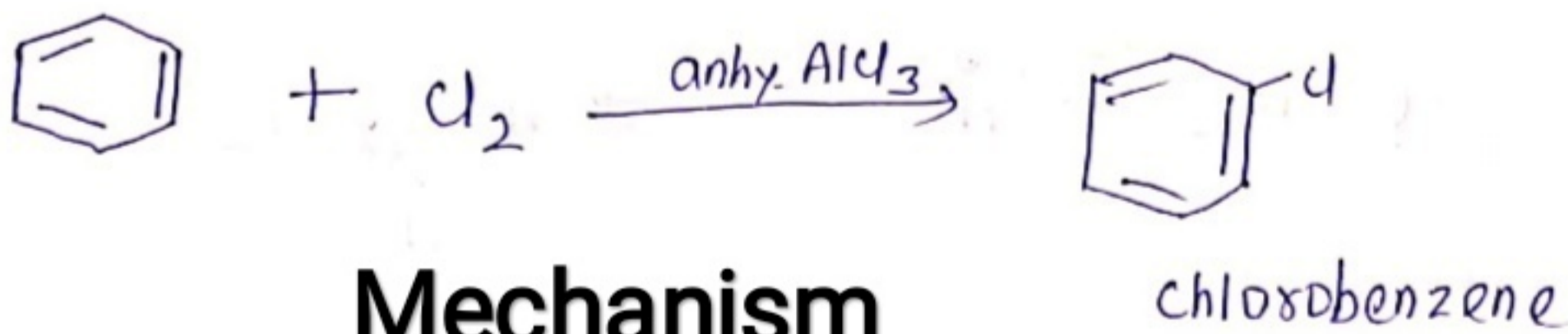
2.



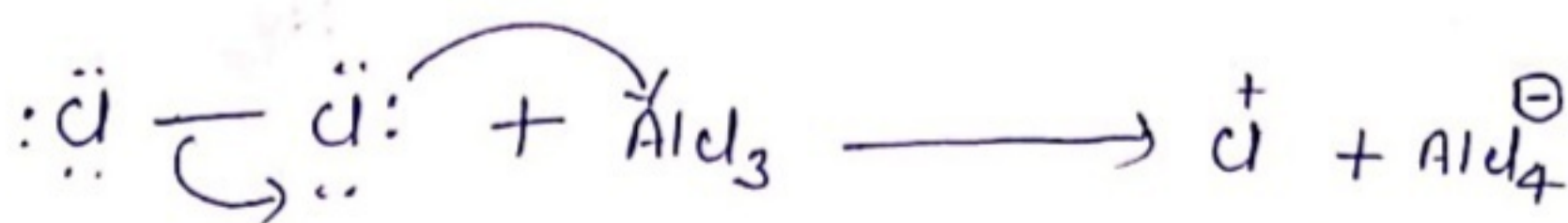
Step : 3



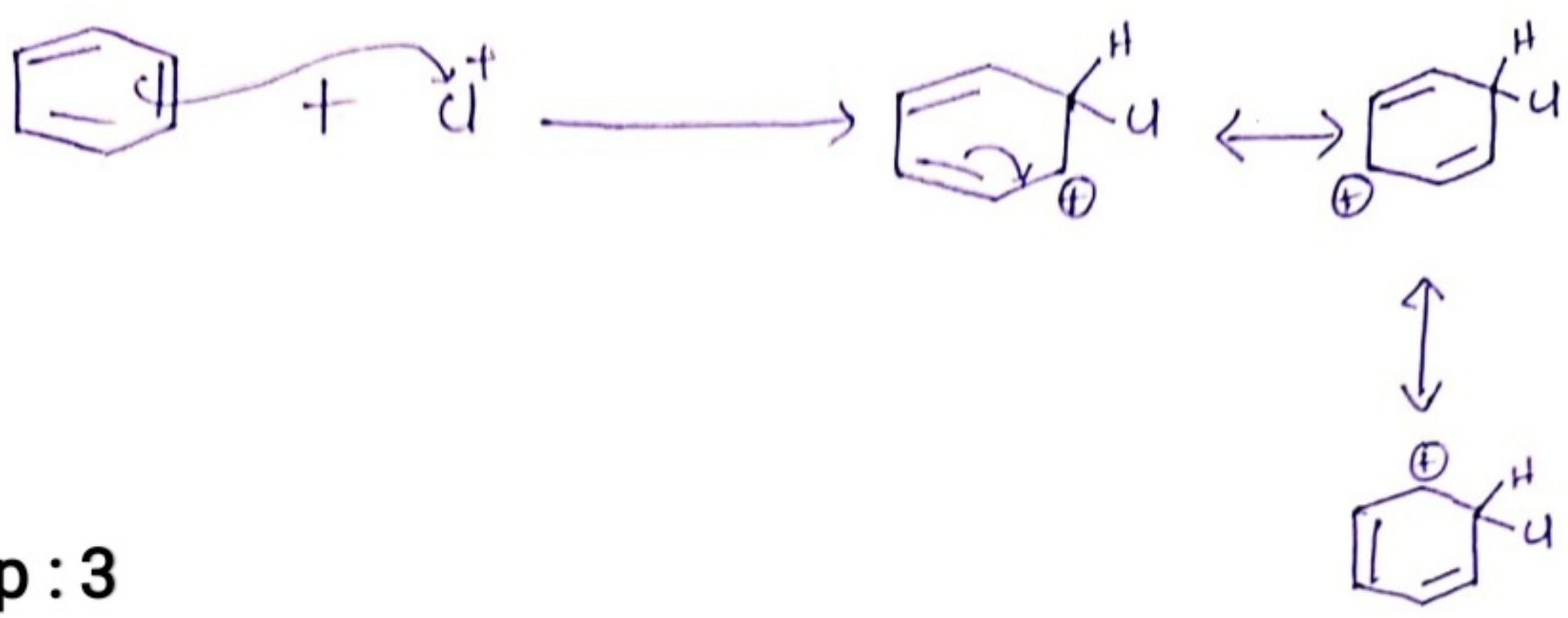
2. Halogenation of Benzene



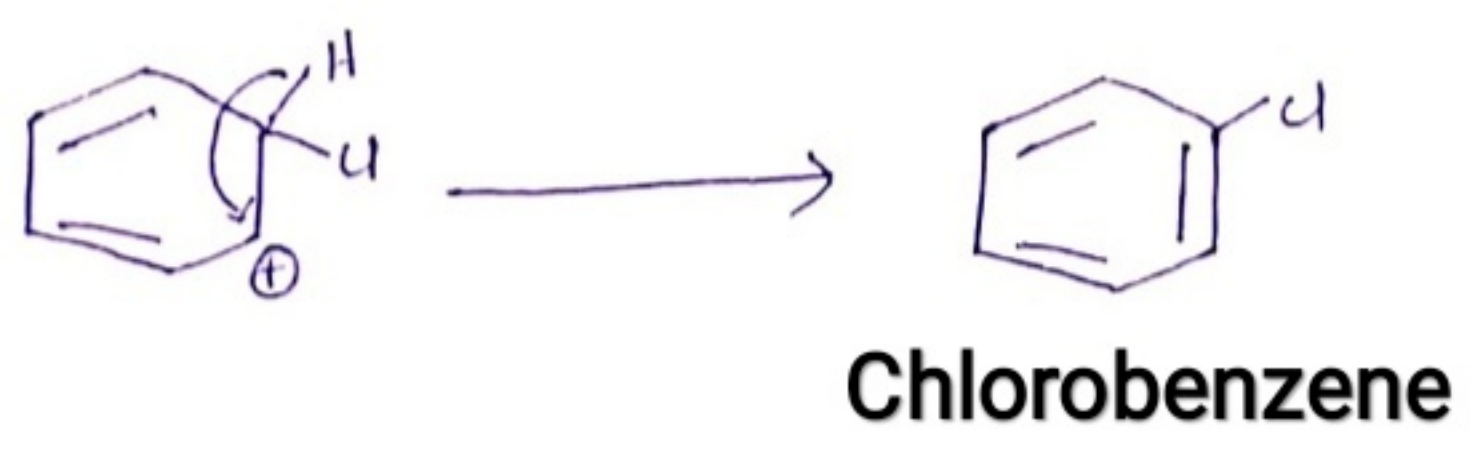
Step : 1 Generation of $\overset{+}{\text{Cl}}$



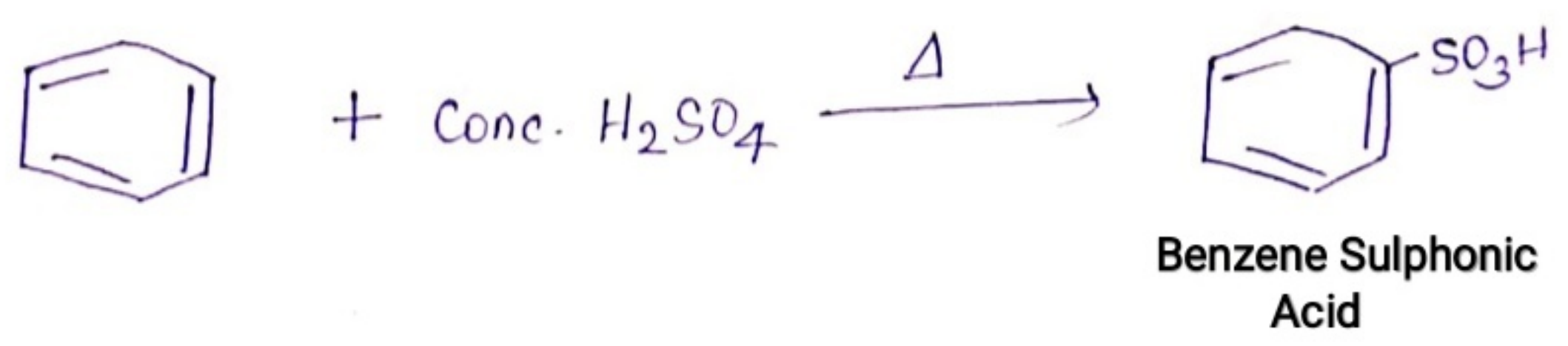
Step : 2 Electrophilic attack of Cl^- on benzene ring ^{3.}



Step : 3



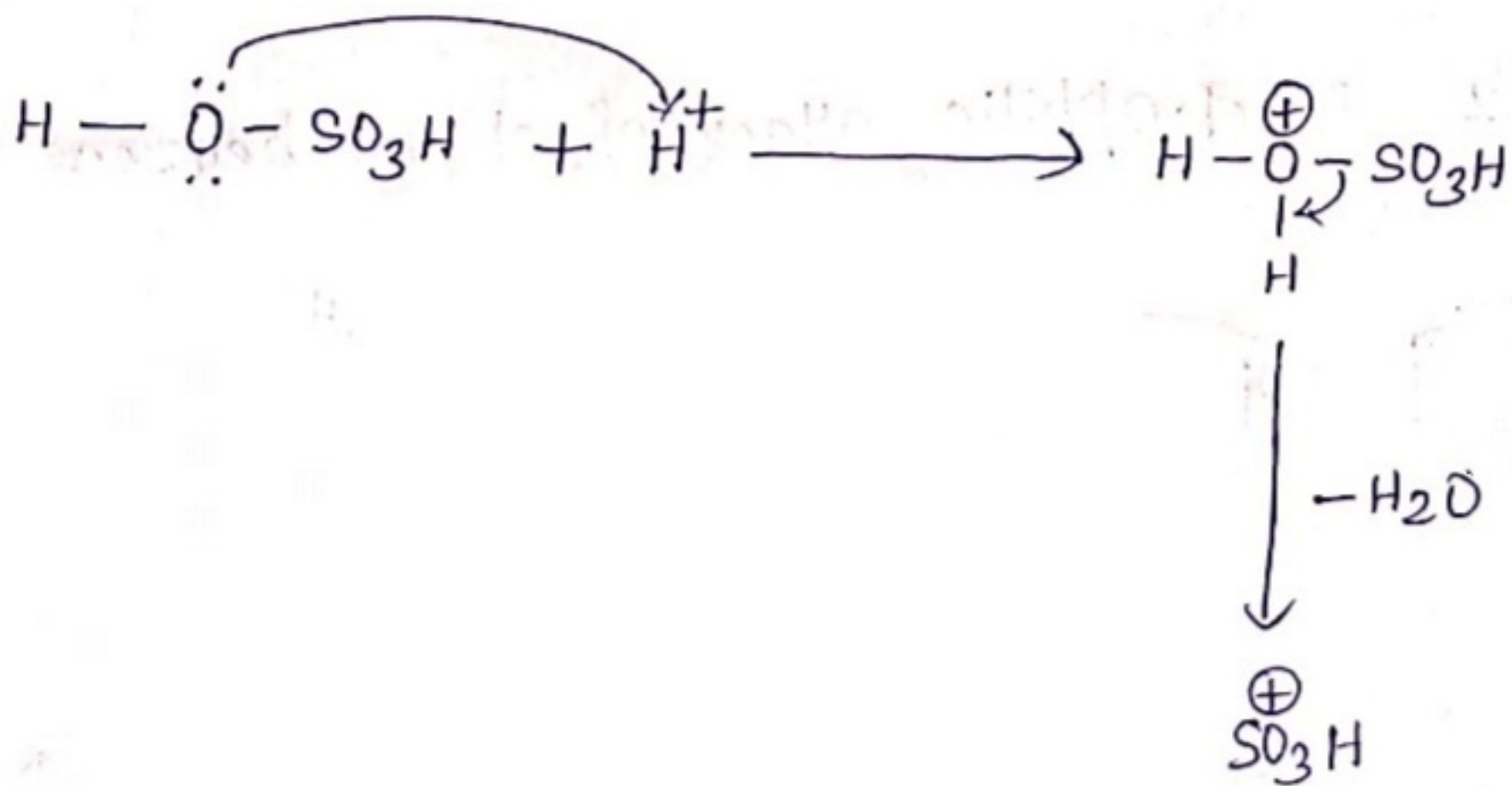
3. Sulphonation of Benzene



Mechanism

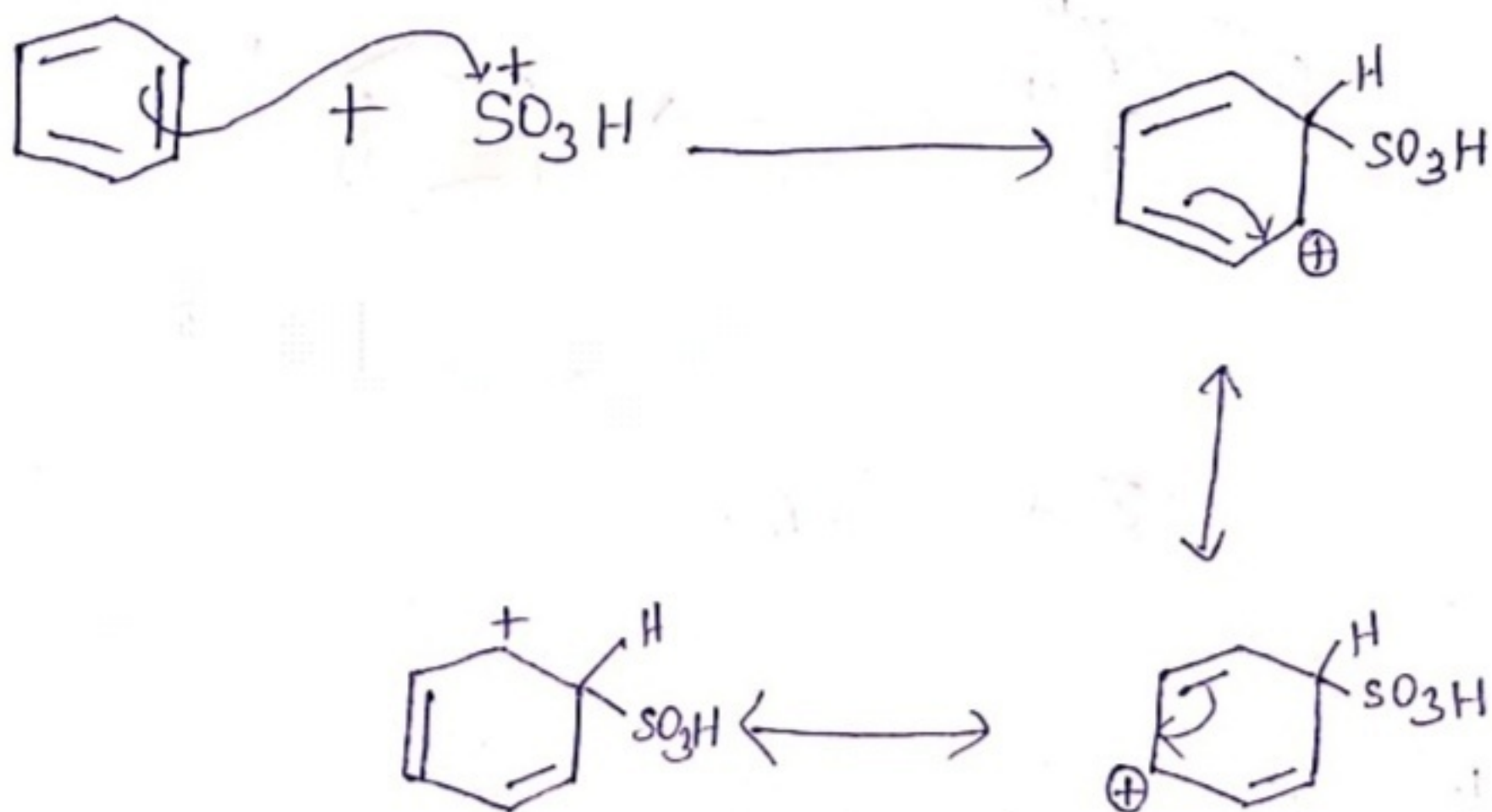
Step : 1 Generation of SO_3H^+





4.

Step : 2 Electrophilic attack of SO_3H^+



Step : 3



Benzene Sulphonic
Acid

Sulphonation of Benzene
~Completed~

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