

B. M. A. College Bahari DARBHANGA

C. CHAUDHARY CHEMISTRY

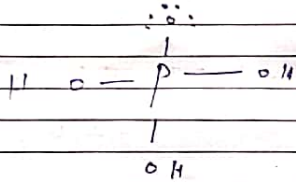
TOPIC ORTHO PHOSPHORIC ACID

Molecular formula of ortho phosphoric

acid is H_3PO_4 . Oxidation no. of

'P' in H_3PO_4 is +5. Its structure

are represented as



Since there are three hydrogen atoms of

H_3PO_4 are replaceable therefore its

basicity is three and it is tribasic

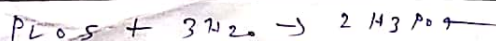
acid. As far as preparation of

H_3PO_4 is concerned, it is prepared

as follows.

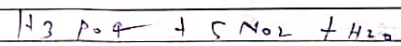
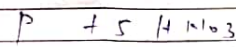
(a) Reaction of P_2O_5 with H_2O

gives H_3PO_4

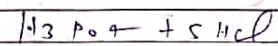
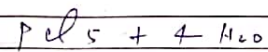
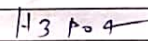


(b) Reaction of 'P' with HNO_3 (concentrated)

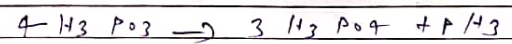
gives rise to H_3PO_4



(c) Reaction of phosphorus pentachloride with water gives rise to



(d) H_3PO_3 on heating dissociates and gives H_3PO_4



Properties: H_3PO_4 reacts with

$NaOH$ a base and gives rise to sodium

hydrogen phosphate.

