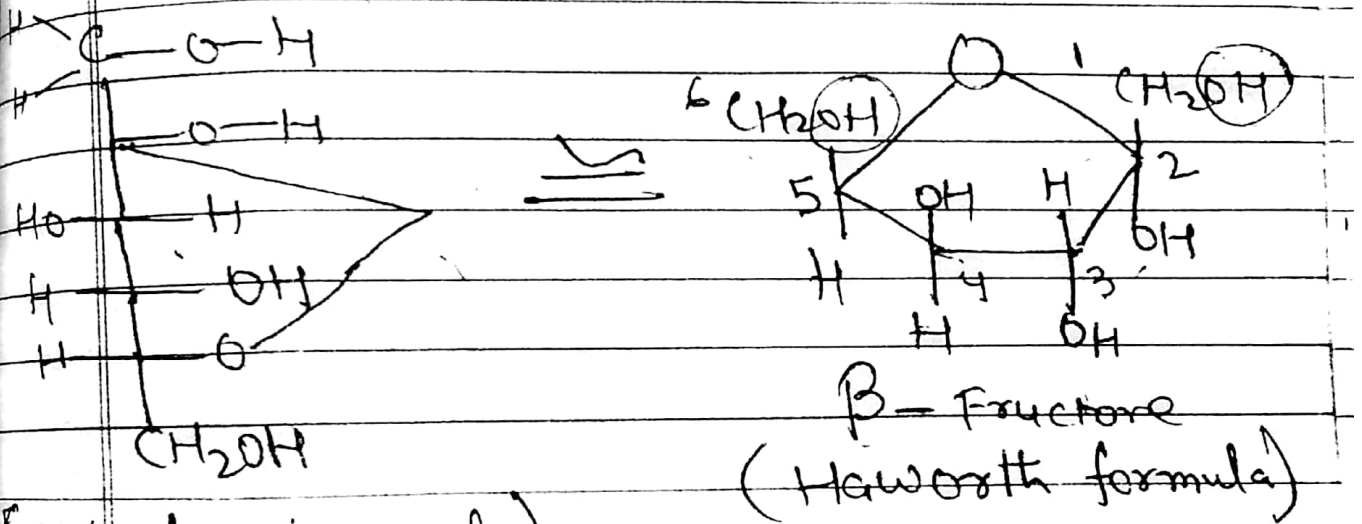
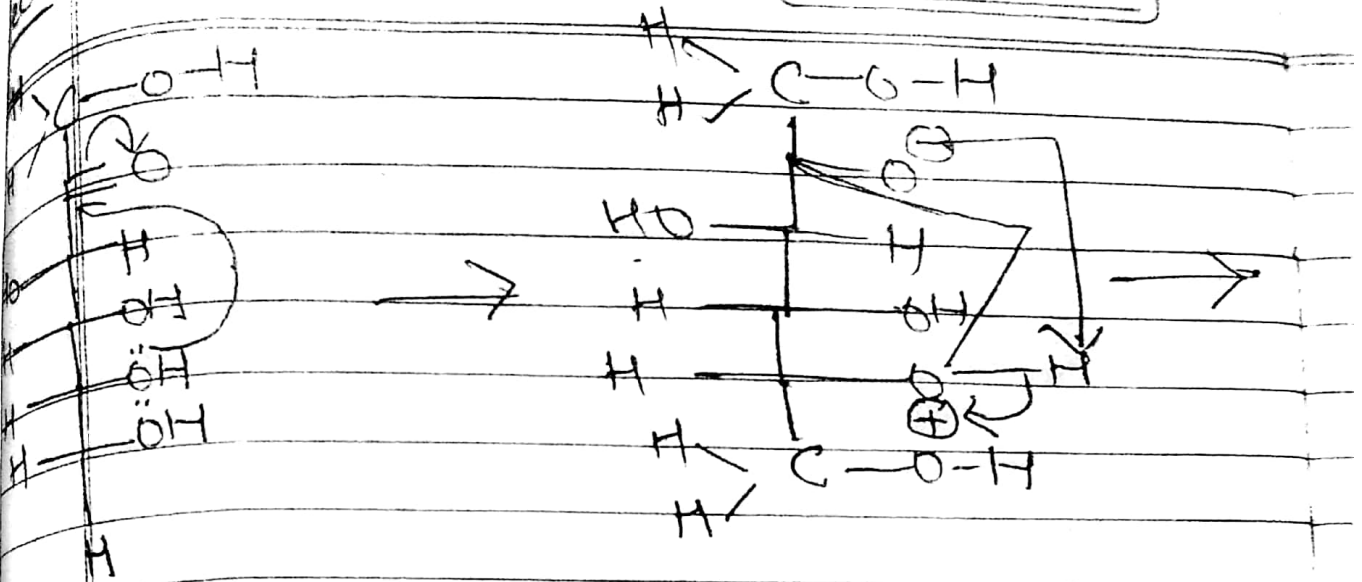
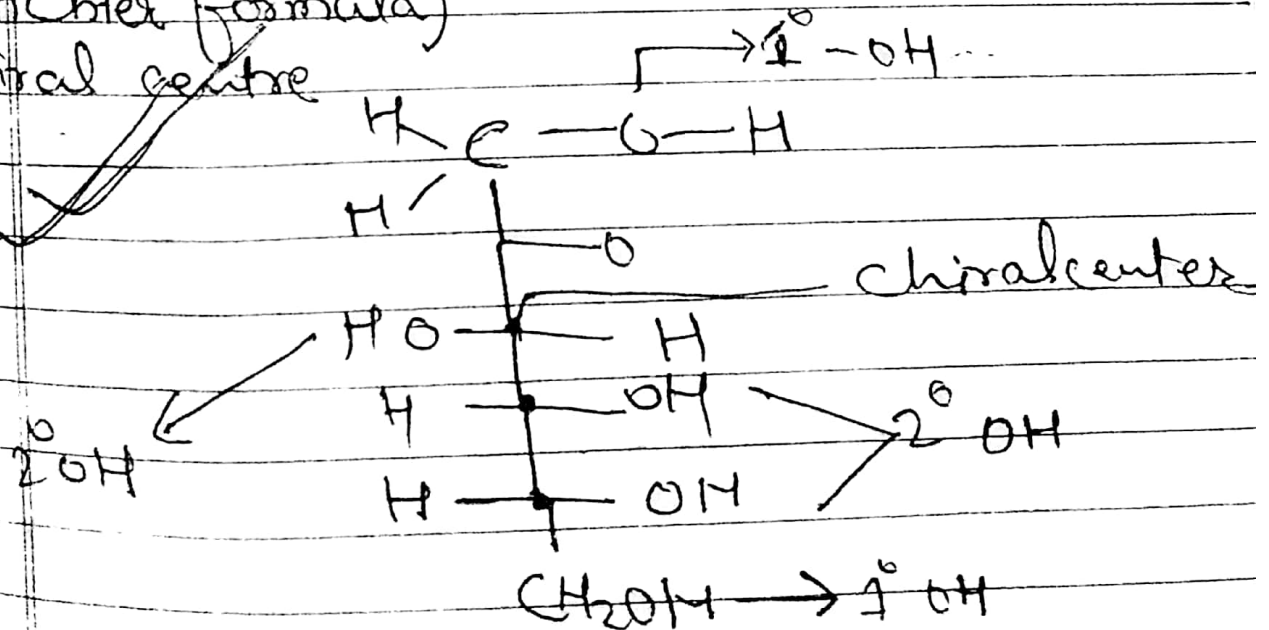


sch:-

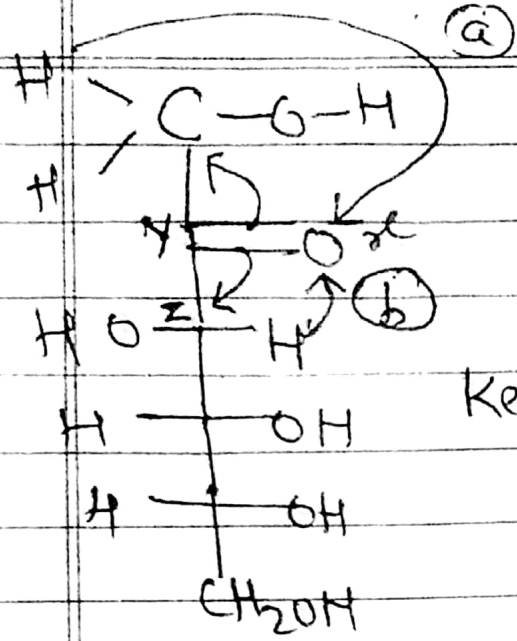


(Fischer formula)
Chiral centre



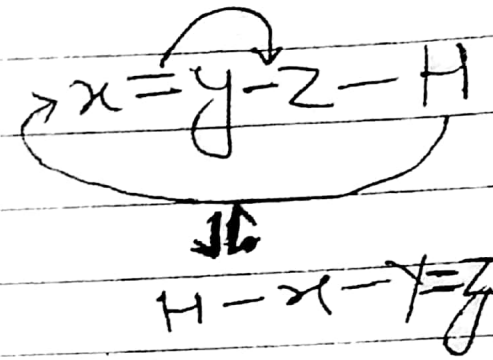
No. of optical isomer = $2^n = 2^3 = 8$

$n = \text{no. of chiral centre} = 3$



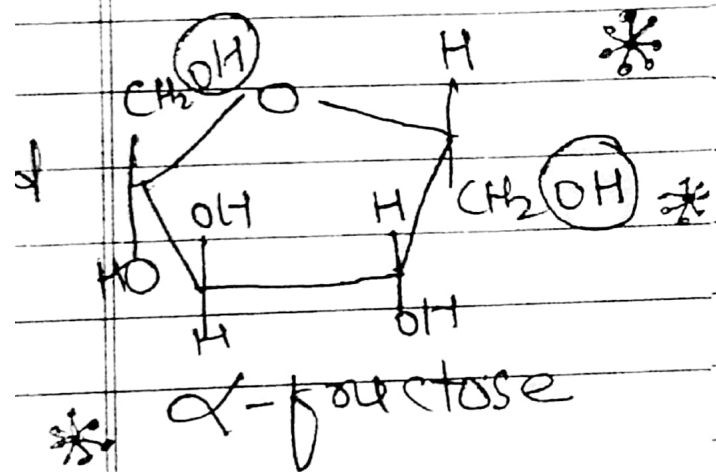
Tautomerisation

Keto form

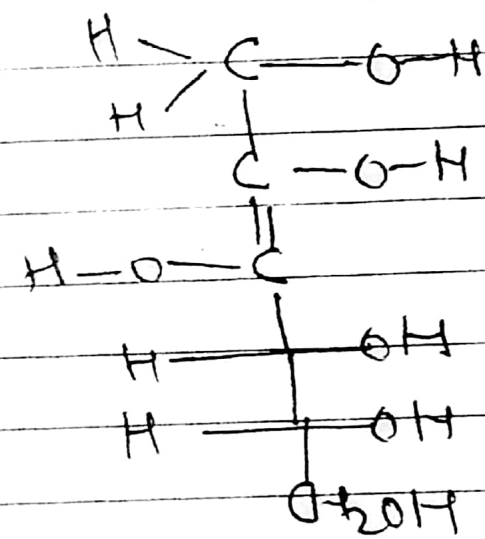


For (a)

For (b)



enol form



enol form

Rekⁿ similar to Glucose
Rekⁿ of Fructose
 With HCN₂

When fructose react with HCN then form fructose cyano hydrine these Here, rekⁿ occurs at ketonic position

M.H.Khan D2(H) 29-4-20 (Wed)
Topic - Fructose in agricultural.

* Fructose :-

Molecular formula = $C_6H_{12}O_6$

It having 1 ketonic and 5 alcoholic group in which two primary alcohol and three secondary alcohol present.

In fructose 3 chiral center is present hence, optically active and form 8 optical isomerism

It also show geometrical isomerism (cis and trans)

It make H-bond hence, soluble in H-bonded compd. and insoluble in non H-bonded compd.

It show re^{ks} of ketone and alcohol.

It show sweetness greater than glucose because it show more H-bonded due to tautomerisation

It make 5 member cyclic str. like furanose.

