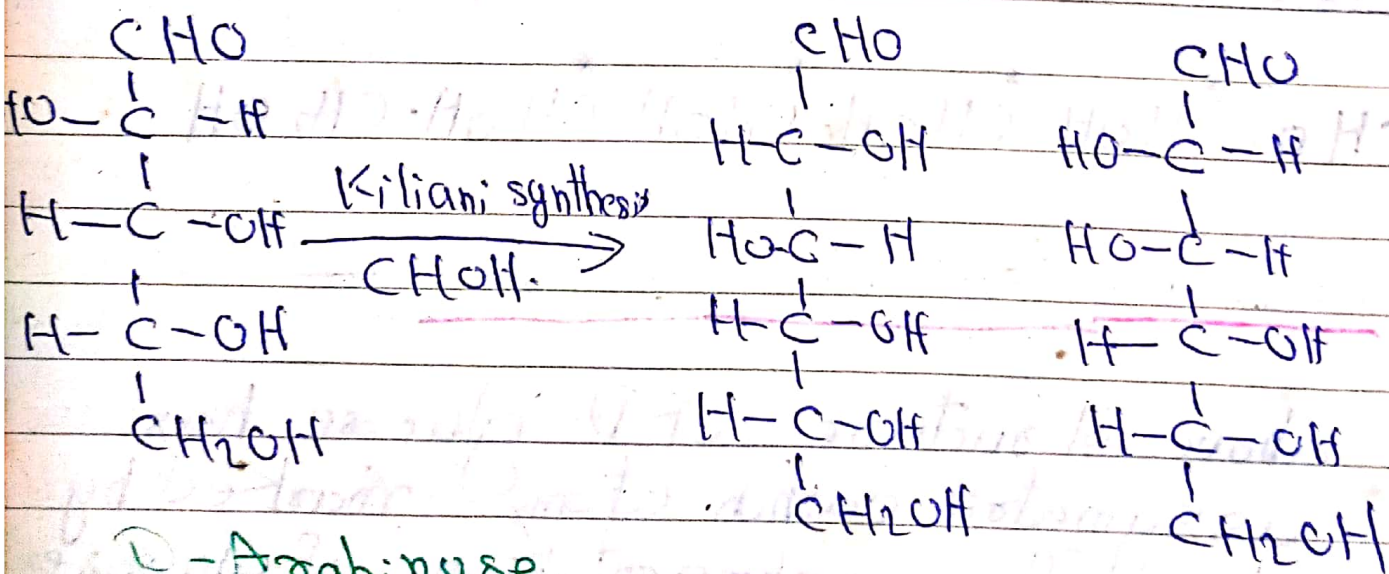


is known. The configuration of D-glucose can be deduced from the following sequence of reactions.

D-Arabinose on Kiliani synthesis gives two aldohexoses, D-glucose and D-mannose. D-glucose on Kiliani synthesis gives two aldohexoses which on oxidation gives corresponding two acids in which one of is optically active and other is optically inactive.

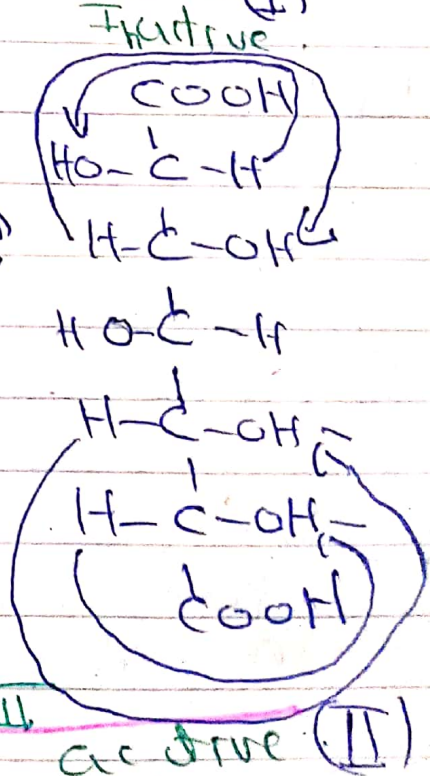
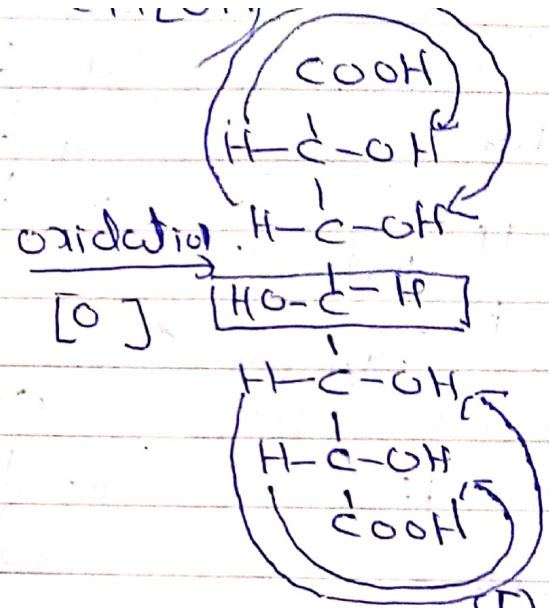
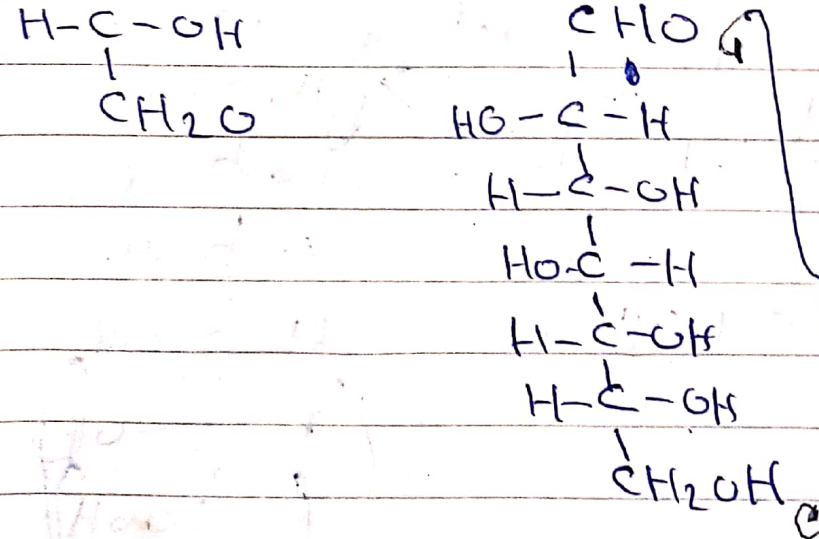
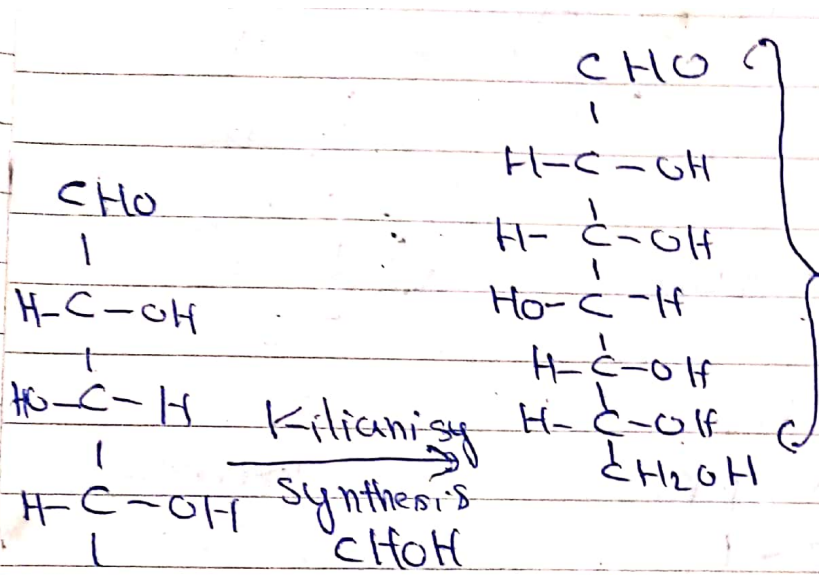
On the other hand D-mannose on Kiliani synthesis also gives two aldohexoses which on oxidation gives corresponding two acids and both are optically active. On the basis of this finding, the configuration of D-glucose can be determined:-



D-Arabinose.

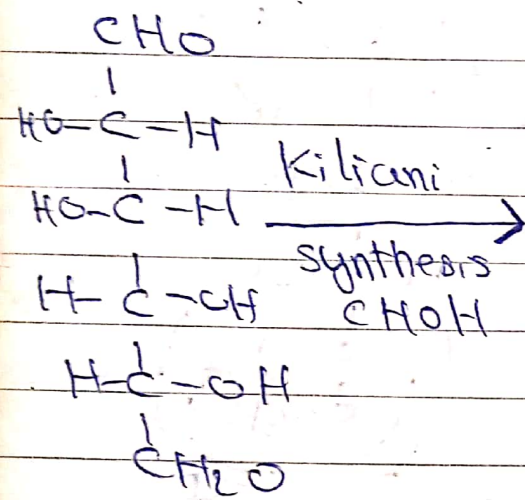
(A)

(B)

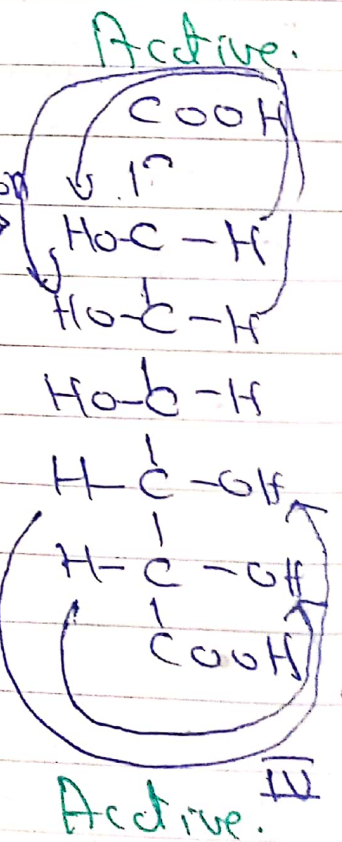
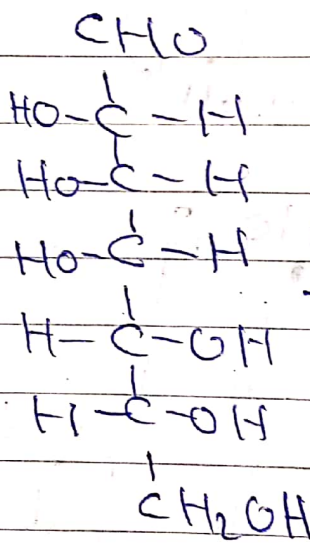
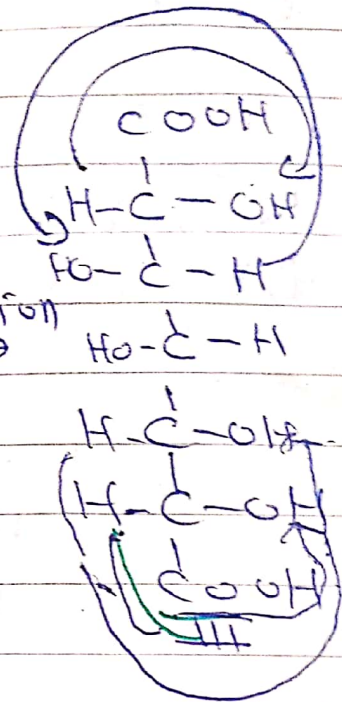
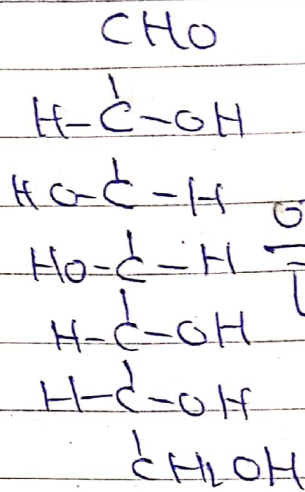


(A) is a glucose.

(II) active (II)



(B)



Conclusion-

(A) is Glucose.
 (B) is Mannose.