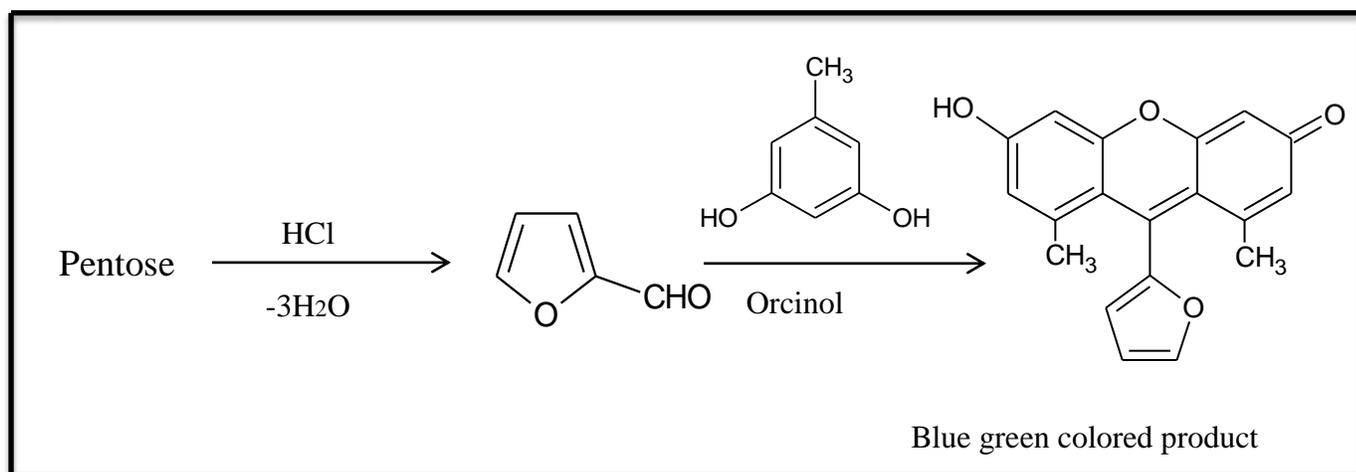


4-Bial`s test:

It is a special test of pentose like ribose and xylose. Pentose interact with concentrated hydrochloric acid to get furfural, then furfural reacts with orcinol to get a blue green colored solution. The hexose interacts with concentrated hydrochloric acid to get a hydroxyl methyl furfural which react with orcinol to get a brown colored solution.



Method :

- 1- Bial`s reagent is prepared by adding 1.5 gm of orcinol in 500 ml concentrated hydrochloric acid, then 1 ml of 10 % ferric chloride is added to the solution.
- 2- In a clean and dry test tube, 1 ml of Bial`s reagent is added to 1ml of sugar solution.
- 3- The solution is heated in a boiling water bath for 3-5 min.
- 4- The change in the color of the solution is noticed (Blue green colored solution is present).

Caution:

In the case of the uses large amount of pentose, we will get a blue-purple colored product.



5- Seliwanoff's test :

It is a special test of ketose, where they interact with concentrated hydrochloric acid 3N HCl to get hydroxyl methyl furfural, then hydroxyl methyl furfural react with resorcinol to get a pink red colored solution with attention of heating time.

Method :

- 1- Seliwanoff's reagent is prepared by adding 0.05 gm of resorcinol in 500 ml concentrated hydrochloric acid 3N HCl.
- 2- In a clean and dry test tube, 1 ml of Seliwanoff's reagent is added to 1ml of sugar solution.
- 3- The solution is heated in a boiling water bath for 3-5 min. The change in the color of the solution is noticed (pink colored solution is present).

