

# **To Detect the Presence Of Carbohydrates, Fats & Proteins In the Following Food Stuffs: Grapes, Potatoes, Rice, Butter, Biscuits, Milk, Groundnut, Boiled Egg**

## **Theory**

The presence of carbohydrates, fats and protein in any food stuff is detected by performing the tests for carbohydrates, fats and proteins with the extract of the food stuff. These tests do not interfere with each other.

## **Apparatus**

Test tubes, beakers, glass rod, pestle mortar, burner.

## **Procedure**

First prepare the extract of the given food stuff by either dry grinding in the mortar with a pestle or by boiling with minimum quantity of water extracting with a small quantity of an organic solvent after grinding the food stuff. The extracts of some of the food stuffs can be prepared as given under:

For grapes — extract the juice

For potatoes — cut into slices and boil with water

For rice — boil with water

For butter — test directly

For biscuits — boil with water

For milk — test directly

For groundnut — grind in the mortar

For boiled egg — take the white of the egg, grind and shake with water.

With the solution or the suspension perform tests for carbohydrates, fats and proteins as discussed in Expts. 10.1, 10.2 and 10.3.

## Observation

<b><i>For Stuff</i></b>	<b><i>For Carbohydrates</i></b>				<b><i>For Proteins</i></b>		<b><i>For Fats and Oils</i></b>		
	<b><i>Molisch's Test</i></b>	<b><i>Fehling Test</i></b>	<b><i>Tollen's Test</i></b>	<b><i>Iodine Test</i></b>	<b><i>Biuret Test</i></b>	<b><i>Ninhydrin Test</i></b>	<b><i>Solubility Test</i></b>	<b><i>Spot Test</i></b>	<b><i>Acrolein Test</i></b>
1. Grapes									
2. Potatoes									
3. Rice									
4. Butter									
5. Biscuits									
6. Milk									
7. Groundnut									
8. Boiled egg									

## Result

The given food stuff contains

(i)..... (ii)..... (iii).....

## Precautions

1. Use freshly prepared reagents for performing tests.
2. Use minimum quantities of reagents.