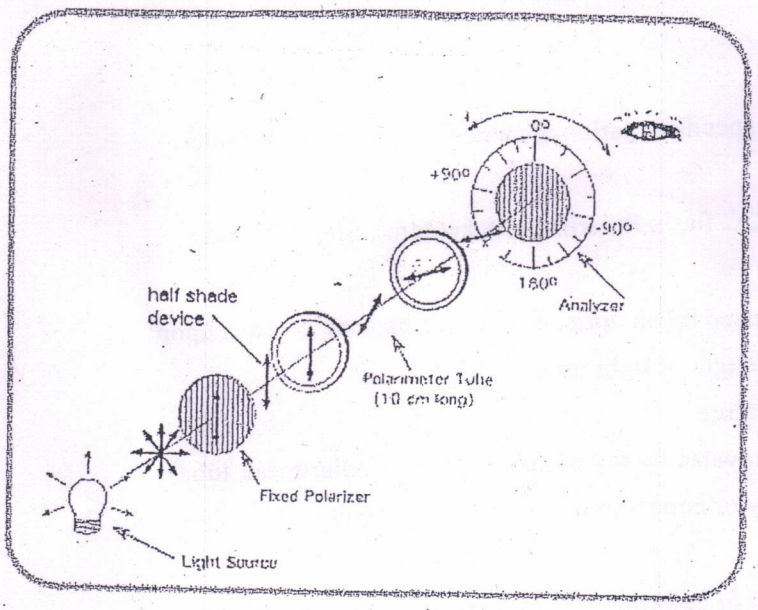

Procedure:

1. Clean polarimeter tube and fill it with distilled water. Place the tube inside the apparatus at its given position. Set the field of view at equal intensity, i.e. fig. 1(c) and note the reading of the position of angle from both the scales. Mark them as θ_w and θ'_w.
2. Now pour out the water from the tube and fill it with the given sugar solution. Again set the field of view at same position as before .i.e fig.1. (c) Note down the reading of the position of angle from both the scales. Mark them as θ_S and θ'_S.
3. The angle of rotation , $\theta_1 = \theta_S - \theta_w$, $\theta_2 = \theta'_S - \theta'_w$

$$\text{Angular rotation, } \theta = \frac{(\theta_1 + \theta_2)}{2}$$

4. Calculate specific rotation of given solution by: $[\alpha]_T^{\lambda} = \frac{\theta}{lC}$

Result:
The specific rotation of cane sugar solution is ---------- $deg.dm^{-1}(g/cc)^{-1}$

Precautions:
1. The polarimeter tube should be thoroughly cleaned.
2. There should not be any air bubble in the tube filled with water/solution.
3. Solution should be clear and dust free.
4. Equally bright positions should be used for taking readings.