EXPERIMENT No.7

AIM: To separate the coloured components present in a mixture of red and blue ink by ascending paper chromatography and find their R_f values.

THEORY: In this type of chromatography a special adsorbent paper (Whatman filter paper) is used. Moisture adsorbed on this Whatman filter paper acts as **stationary phase** and the solvent acts as the **mobile phase.** The mixture to be separated is spotted at one end of the paper. This paper is then developed in a particular solvent by placing the paper in a gas jar, taking care that the spot is above the solvent. The solvent rises due to capillary action and the components get separated out as they rise up with the solvent at different rates. The developed paper is called a **chromatogram**.

R_f (retention factor) values are then calculated, which is the ratio of the distance moved by the component to the distance moved by the solvent front.

$R_f = \dfrac{\text{Distance traveled by the component}}{\text{Distance traveled by the solvent front}}$

OBSERVATIONS AND CALCULATIONS: (*ON THE BLANK PAGE, USING A PENCIL*)

S.No	SUBSTANCE	DISTANCE TRAVELLED BY DIFFERENT COMPONENTS	DISTANCE TRAVELLED BY SOLVENT	R_f VALUE
1	RED + BLUE INK			
2	RED + BLUE INK			

RESULT: (*ON RULED SIDE*) - R_f of blue ink =
R_f of red ink =