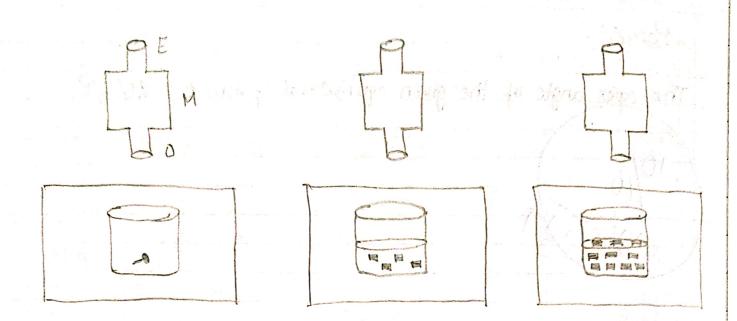
|        | Dete   |
|--------|--|
| Exp    | ot. No. 5. Quality Check for Soft Drinks Page No.  |
|        | and the second s |
|        | Required Apparatus   |
| •      | Travelling microscope  |
|        | Transparent liquid (water)   |
|        | Reading lens   |
| •      | cilais beaker  |
| •      | Pin  |
| •      | Saw dust   |
|        | I' III I IP GUECK TE WOOD BOK KD 1300 BOKY RA I LINDA I  |
|        | ·SLO:-   |
|        | To determine the refractive index of the paism given liquid  |
|        | To determine the refractive index of the poison given liquid using travelling microscope   |
| la Mit | To determine the refractive index of impure liquid   |
| 1 2    | 140 minural OLADEV DALA  |
|        | Formula!   |
|        |  |
|        | The refractive index of liquid (4)   |
|        | 11 = Real depth of liquid = C-A  |
|        | M = Real depth of liquid = C-A  Apparent depth of liquid C-B   |
|        | B > microscopic reading when tip of pin is focussed directly   |
|        | B> microscopic reading when tip of pin is focussed through   |
|        | the liquid  c > microscopic reading when saw dust sprinkled on the  surface of the liquid is focused.  |
|        | surface of the liquid is the used.   |
|        |  |

Teacher's Signature:\_



Least count of Travelling Microscope = 0.001cm

| 7                      |   | 1           |           |   |      |       |   |       | pol ed to 9 | and the state of |        |      |
|------------------------|---|-------------|-----------|---|------|-------|---|-------|-------------|------------------|--------|------|
| Volume of water in the | clear image of<br>tip of the pin<br>(Reading A) |             |           | Clear image of<br>tip of the pin<br>seen through<br>the liquid<br>(Reading B) |      |       | clear image of<br>the saw dust-<br>scattered on the<br>surface of liquid<br>(Reading c) |       |             |                  | C-B    | 4/2  |
| beaker                 | MSRI &  | VSR<br>(cm) | ) or<br>m | MSR<br>(cm)   |      |       |   | VSR   | . , .       | 210%             |        | (    |
| 40mL/                  | 5.8   | 0.01        | 5.81      | ۲۰۷   | 0.05 | 6.405 | 7.9   | 6-03  | 7.93        | 2.12             | 1.525  | 1.39 |
| 60mL                   | 5.8   | 0.01        | 5.81      | 6-7   |      |       | 9.2   | 0:034 | 9.234       | 3.424            | 2.523  | 1.35 |
|                        | VSR=VSCXLC                                      |             |           | reading (OR)<br>= MSR+VSR   |      |       | 3/2   | 9:0   | msol.       | LE U             | Hear - | 1.37 |

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| Date | <br> | <br> | -,- | _ | - | - |
|------|------|------|-----|---|---|---|

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## Calculation !-

$$\frac{1}{40mL}$$
 =  $\frac{C-A}{C-B}$  =  $\frac{7.93-5.81}{7.93-6.405}$  =  $\frac{2.12}{1.525}$  =  $\frac{1.39}{1.525}$ 

$$2.57$$
  $2.57$   $2.57$   $2.57$   $2.57$ 

Mean = Unome + Ucome

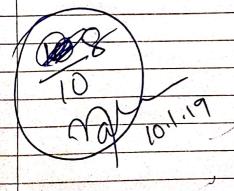
= 1.39+1.357

2.747

1.37

## Result :-

Refractive index of given liquid (water) is found to be M = 1.37.



Teacher's Signature: