Exp.no.5
24.11.21

5. DETERMINATION OF RELATIVE HUMIDITY USING WET AND DRY BULB HYGROMETER

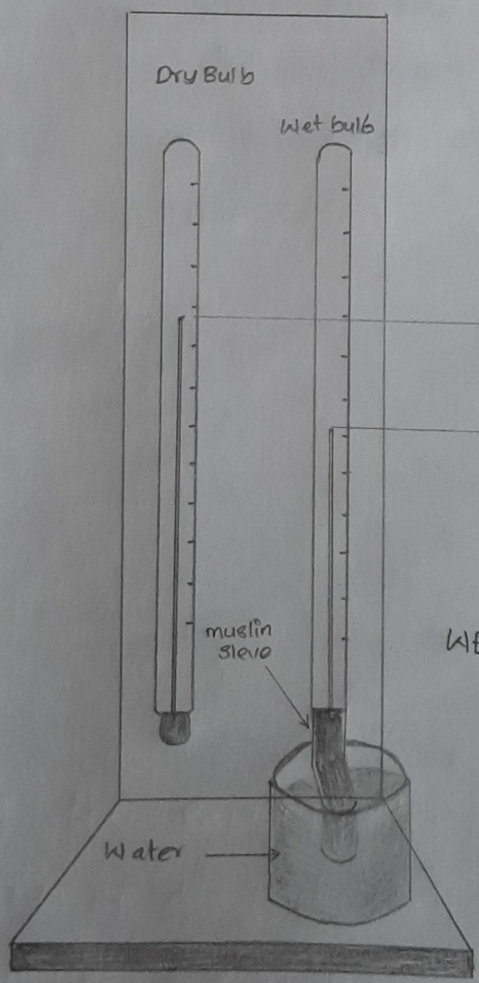
AIM:-

To determine the relative humidity using wet and dry bulb hygrometer, dew point

APPARATUS REQUIRED:-

Wet and dry bulb hygrometer, [Two thermo meber], Hanger, Muslin, Distilled Water, Water, 0°c scale and °f scale, chart for relative humidity.

DIAGRAM:-



WET AND DRY BULB HYGROMETER

PROCEDURE :-

1. Firstly, we have to take a wet and dry bulb hygrometer.

2. Then note the reading of the wet bulb thermometer and the reading of the dry bulb thermometer.

3. Then we find out the difference of dry and wet bulb thermometer reading.
[By following the R.H. scale]

4. Then we determine the value of rebtive humidity with respect to dry bulb thermometer. Repeat the experiment for 10 time's.

5. The dew point of the exprimental setup can be found from the DEW POINT CHART-°C by the intercept of the point's from the given data.

Experimental Data :-

No. of obs	1	2	3	4	5	6	7	8	9	10
Dry bulb temp T_1°C	31	32	32	32	32	32	32	32	32	32
Wet bulb temp T_2°C	28	28	27	28	29	27	29	28	28	29
Difference	3	4	5	4	3	5	3	4	4	3

DETERMINATION OF RELATIVE HUMIDITY AND DEW POINT:-

Dry Bulb Temperature T°C	Difference	RELATIVE HUMIDITY (%)	DEW POINT (°C)
31	3	80	27
32	4	74	27
32	5	68	26
32	4	74	27
32	3	80	28
32	5	68	26
32	3	80	28
32	4	74	27
32	4	74	27
32	3	80	28
Average =		75.2 %	27.1°C

RESULT :-

The relative humidity and dew-point temperature at different location in the lab is being noted.