# OBSERVATION:

Voltmeter reading when the LDR is closed = __2.5__ V

Ammeter reading when the LDR is closed = __0.5__ A

Dark resistance = $R = \dfrac{V}{I} =$ __5__ ohm

To determine the resistances of LDR at different distances

| S.No | Distance | Voltmeter reading (V.) volt | Ammeter reading (I) mA | R R kΩ |
|------|----------|------------------------------|-------------------------|--------|
| 1 | A | 0.4 | 0.6 | 0.66 |
| 2 | (Long | 0.9 | 1.6 | 0.56 |
| 3 | distance) | 1.4 | 2.5 | 0.56 |
| 4 | | 1.9 | 3.4 | 0.55 |
| 5 | 26 | 2.4 | 4.4 | 0.54 |
| 1 | B | 0.4 | 0.9 | 0.44 |
| 2 | (Mid | 0.9 | 2.0 | 0.45 |
| 3 | distance) | 1.4 | 3.2 | 0.43 |
| 4 | | 1.9 | 4.5 | 0.42 |
| 5 | 19 | 2.4 | 5.7 | 0.42 |
| 1 | C | 0.4 | 1.5 | 0.26 |
| 2 | (Short | 0.9 | 3.5 | 0.25 |
| 3 | distance) | 1.4 | 5.5 | 0.25 |
| 4 | | 1.9 | 7.7 | 0.24 |
| 5 | 12 | 2.4 | 10.0 | 0.24 |

# Light dependent Resistor - LDR



Scale
In X-axis 1 unit = 5 cm
In y-axis 1 Unit = 0.1 Ω

Resistance (Ω) →

0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

(26, 0.6)

(19, 0.4)

(12, 0.2)

0  5  10  15  20  25  30  35

Distance (cm) →