

## **TAP 111-1: Variation of resistance of an LDR with light intensity**

### **Apparatus:**

- ✓ LDR, e.g. NORP-12
- ✓ Multi-meter (to use as an ohm- meter)
- ✓ Lux meter
- ✓ 12 V filament lamp in holder (e.g. SBC batten holder)
- ✓ Power supply.
- ✓ Black card
- ✓ Scissors
- ✓ Sellotape

### **Procedure:**

- Set up a 12 V lamp on the bench to act as a light source.
- Connect the multimeter to the LDR and adjust it to a suitable resistance range.
- Now place the LDR at different distances from the lamp and measure its resistance.
- At each distance replace the LDR by the lux meter and record the light intensity.
- You should end up with a table showing distance, light intensity and resistance.

Plot a graph to show how the resistance ( $y$ -axis) varies with light intensity ( $x$ -axis).