BITT POLYTECHNIC, RANCHI

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

EXPERIMENT NO.

AIM:-DC Characteristics of LED.

APPARATUS:- LED trainer kit, Patch cords.

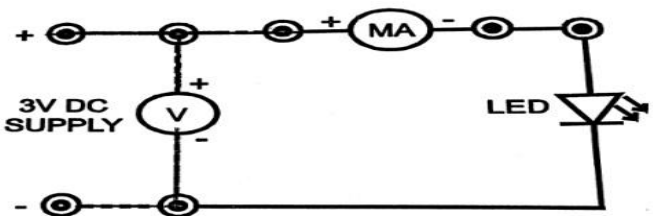
THEORY:-

LED:- A light-emitting diode (LED) is a semiconductor light source that emits light when current flows through it. Electrons in the semiconductor recombine with electron holes, releasing energy in the form of photons. This effect is called electroluminescence. The color of the light (corresponding to the energy of the photons) is determined by the energy required for electrons to cross the band gap of the semiconductor. White light is obtained by using multiple semiconductors or a layer of light-emitting phosphor on the semiconductor device.

PROCEDURE:-

1. Connect the 0-3V supply to input socket.(Red Terminal to red terminal & black terminal to black terminal)
2. Connect the voltmeter & current meter to the circuit as shown in fig.
3. Switch ON the instrument using ON/OFF toggle switch provided on front panel.
4. Keep output potentiometer fully antic lock wise.
5. To connect Red, Yellow & Green LED. Connect socket A to B, A to C, C to A, & A to D respectively.
6. Vary the input voltage in small steps & note down the observation in table.
7. Plot a graph between voltage v/s current.

CIRCUIT DIAGRAM:-



1. Circuit should be connected properly.
2. All connection should be tight.
3. Instruments should be handled with care.
4. Power supply should be connected in proper polarit

OBSERVATION TABLE

S.No.	LED VOLTAGE	LED CURRENT
1		
2		
3		
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RESULT:- Graph has been plotted on graph paper.

PRECAUTION:-