Experiment No. 6 b) Date :	6. b) STAIRCASE WIRING

Aim:

To control a single lamp from two different places.

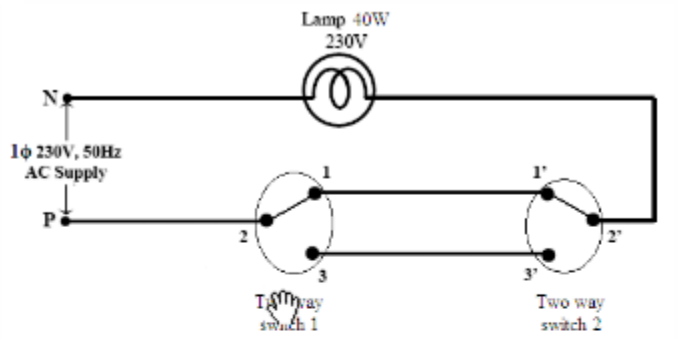
Apparatus Required:

S.No	Components	Quantity/ Range
1	Incandescent Lamp	1(230V,40W)
2	Lamp holder	1
3	Two way switches	2 (230V, 5A)
4	Connecting Wires	As required

Tools Required:

Wire mans tool Kit - 1No.

Circuit Diagram:



Theory:

1. A two way switch is installed near the first step of the stairs. The other two way switch is installed at the upper part where the stair ends.
2. The light point is provided between first and last stair at an adequate location and height if the light is switched on by the lower switch. It can be switched off by the switch at the top or vice versa.
3. The circuit can be used at the places like bed room where the person may not have to travel for switching off the light to the place from where the light is switched on.
4. Two numbers of Two-way switches are used for the purpose. The supply is given to the switch at the short circuited terminals.
5. The connection to the light point is taken from the similar short circuited terminal of the second switch. Other two independent terminals of each circuit are connected through cables.

Procedure:

1. Give the connections as per the circuit diagram.
2. Verify the connections.
3. Switch on the supply.
4. Verify the conditions.

Tabulation:

Position of switches		Condition of lamp
S1	S2	

Result

POST LAB QUESTIONS

1. **What is the use of staircase wiring?**

2. **Why choke is used in fluorescent lamp?**

3. **What is the purpose of magnetic ballast in fluorescent lamp?**

4. **Compare electronic ballast and magnetic ballast?**

5. **List out the advantage of staircase wiring**