Indian Institute of Information Technology, Allahabad

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

Course Name: Fundamental of Electrical and Electronics

EXPERIMENT NO: 11

Objective:

To implement and verify reciprocity theorem.

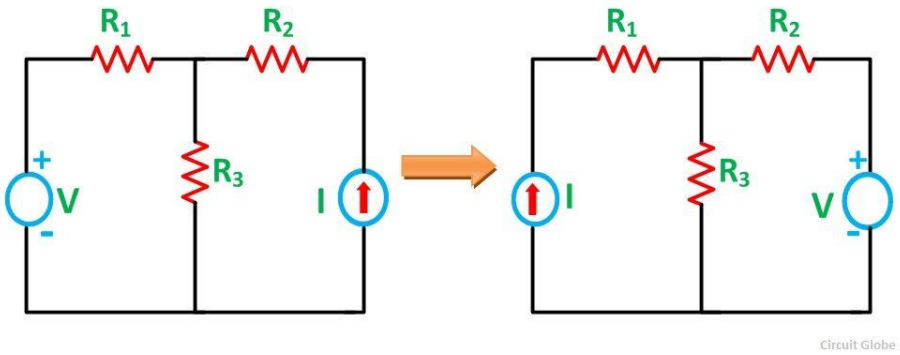
Materials/ Component Required :

Bread board, Digital Multimeter, Resistance, DCPower supply, Connecting Wires

Theory:

The reciprocity theorem states that if an emf E in one branch of a reciprocal network produces a current I in another, then if the emf E is moved from the first to the second branch, it will cause the same current in the first branch, where the emf has been replaced by a short circuit

Circuit Diagram:



Observation Table:

Value of current I

Value of voltage V

Calculation:

Result:

Precautions:

a) Connections should be verified before clicking run button.
b) The resistance to be chosen should be in Kohm range.
c) Best performance is being obtained within 50Hz to 1Mhz.