

Indian Institute of Information Technology, Allahabad

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

Course Name: Fundamental of Electrical and Electronics

EXPERIMENT NO: 9

Objective:

To implement and verify super position theorem.

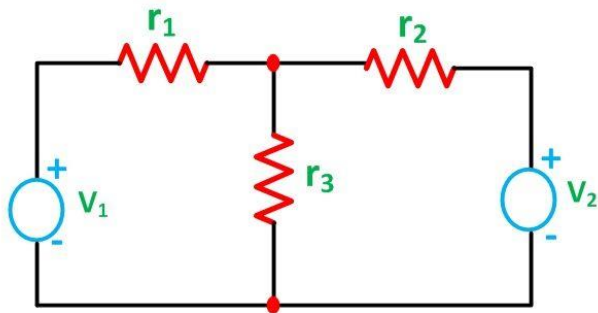
Materials/ Component Required :

Bread board, Digital Multimeter, Resistance, DC Power supply, Connecting Wires

Theory:

The superposition theorem states that for a linear system the response (voltage or current) in any branch of a bilateral linear circuit having more than one independent (voltage or current) source equals the algebraic sum of the responses caused by each independent (voltage or current) source.

Circuit Diagram:



Circuit Globe

Observation Table:

Response across, r_3

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.