

Lab Session 10

Analyze and Implement Maximum Power Transfer Theorem

Objective:

- Analyze and Implement Maximum power transfer theorem for a given circuit

Equipments and Components required:

- DC Power Supply
- Ammeter
- Voltmeter
- Five dial decade resistor box
- Resistors
- Breadboard
- Connecting wires

Statement:

“Maximum power is transferred to the load when the load resistance equals the Thevenin’s resistance as seen from the load ($R_L = R_{Th}$)”.

Procedure:

1. Connections are made as per the circuit diagram.
2. A fixed supply voltage is applied using RPS.
3. Vary the load resistance (R_L) and note down the corresponding voltages and currents.

Circuit Diagram:

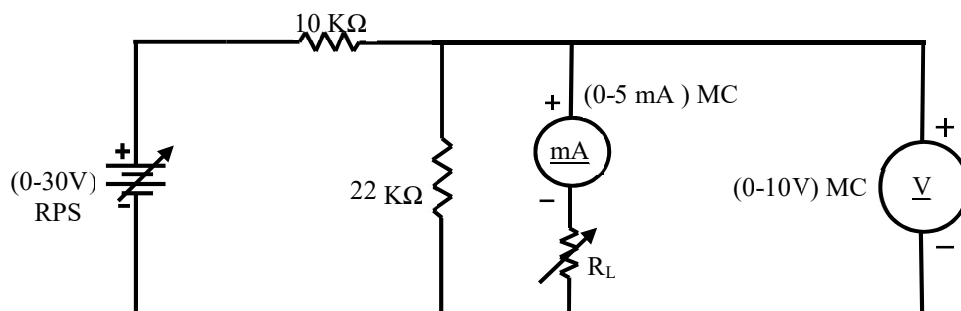


Fig 10.1

Load resistance	Practical values			Theoretical values		
	Voltage (V)	Current (mA)	Power (W)	V_{TH}	R_{TH}	Maximum Power

Table 10.1

Conclusions & Comments:
