**CSE 209 Electrical Circuits**

**Project**

**PSpice Analysis for Maximum Power Transfer**

1. Using PSpice Simulation, determine the Thevenin’s equivalent of the circuit looking from the load resistance RL.
2. From the Thevenin’s equivalent circuit, theoretically determine the value of load resistance RL for maximum power transfer. Using PSpice Simulation of the Thevenin’s equivalent circuit with RL for maximum power transfer, determine the value of maximum power transferred to RL.
3. Using PSpice Simulation with resistance sweep, determine the value of RL for maximum power transfer and the corresponding maximum power.
4. Compare the value of RL and maximum power obtained in steps 2 and 3.



**Marks Distribution**

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| --- | --- |
| **Assessment Area** | **Mark** |
| **C3: Cognitive: Applying** | 12 |
| **P2: Psychomotor: Manipulation** | 1 |
| **P3: Psychomotor: Precision** | 1 |
| **A2: Affective: Responding** | 1 |
| **Total** | **15** |