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| **Course Name:** | **Elements of Electrical and Electronics Engineering** | **Semester:** | **I/II** |
| **Date of Performance:** | **25/01/2022** | **Batch No:** | **B2** |
| **Faculty Name:** |  | **Roll No:** | **16010121114** |
| **Faculty Sign & Date:** |  | **Grade/Marks:** | **/ 25** |

**Experiment No: 9**

**Title:** **Measurement of Power using Two Wattmeter Method**

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| **Aim and Objective of the Experiment:** |
| * To measure the power of three phase power using Two Wattmeter Method |

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| **COs to be achieved:** |
| **CO1:** Analyze resistive networks excited by DC sources using various network theorems. |

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| **Circuit Diagram/ Block Diagram:** |
| **Circuit Diagram** |

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| **Stepwise-Procedure:** |
| 1. 1.Connect the circuit as shown in circuit diagram 2. 2. Increase the load and note down the reading VL,IL,W1 and W2 3. 3. Practically you will obtain total power W=W1+W2 4. 4. Theoretically power is measured by using formula P=√3VLILcosϕ, using cosϕ=1(unity) for 5. resistive load. |

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| **Observation Table:**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Sr.no** | **VL** | **IL** | **W1** | **W2** | **W=W1+W2** | **P = √3VLILCOSϕ** | **Load** | | 1(Star) | 230.9 | 3.81 | 0.14 | 0.14 | 0.28 | 456.5 | 10 | | **2(Delta)** | 230.9 | 4.32 | 0.06 | 0.06 | 0.12 | 517.69 | 10 | | **3** |  |  |  |  |  |  |  | | **4** |  |  |  |  |  |  |  | | **5** |  |  |  |  |  |  |  |   **Theoretical Calculations:** |
| Screenshot of Output:   1. Star Method      1. Delta Method |

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| **Conclusion:** |
| By using the Two Wattmeter Method, the power of three phase power was measured. We analyzed different resistive networks excited by DC sources using various network theorems. |

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| **Signature of faculty in-charge with Date:** |