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| **Course Name:** | **Elements of Electrical and Electronics Engineering** | **Semester:** | **I/II** |
| **Date of Performance:** | **4/1/2022** | **Batch No:** | **A2** |
| **Faculty Name:** | **Maruti Zalte** | **Roll No:** | **16010121045** |
| **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. Connect the circuit as shown in circuit diagram 2. Increase the load and note down the reading VL,IL,W1 and W2 3. Practically you will obtain total power W=W1+W2 4. Theoretically power is measured by using formula P=√3VLILcosϕ,   using cosϕ=1(unity) for resistive load. |

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| **Observation Table:**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Sr.no** | **VL** | **IL** | **W1** | **W2** | **W=W1+W2** | **P=√3VLILCOSϕ** | **Load** | | **1** | 266 | 1.53 | 352 | 354 | 706 | 702.93 | Resistive | | **2** | 379 | 0.66 | -53.3 | 184 | 130.7 | 134.31 | Inductive(cos **ϕ**=0.31) | | **3** | 328 | 1.73 | -120 | 414 | 294 | 304.67 | Inductive(cos **ϕ**=0.31) | | **4** | 160 | 2.77 | 389 | 373 | 763 | 759.97 | Reactance(cos **ϕ**=0.99) | |
| Screenshot of Output:    Pargat Singh  Pargat Singh  Pargat Singh  Pargat Singh  **Calculations** |

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| **Conclusion:** |
| The measurement of three phase power for both, star and delta connection was successfully measured  using two watt meters. |

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