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| **Course Name:** | **Elements of Electrical and Electronics Engineering** | **Semester:** | **II** |
| **Date of Performance:** | **08 / 05 / 2023** | **Batch No:** | **P1-2** |
| **Faculty Name:** |  | **Roll No:** | **160140220** |
| **Faculty Sign & Date:** |  | **Grade/Marks:** | **/ 25** |

**Experiment No: 8**

**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:** |
| **R1 = 15 ohm, L1=31.85 mH,** |

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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 resistive load. |

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| **Observation Table:**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Sr.no** | **VL V** | **VPH** | **IL A** | **W1 KW** | **W2 KW** | **W=(W1+W2 )KW** | **P = √3VLILCOSϕ KW** | **No. of bulbs lit** | | 1 | 415 | 233 | 0.85 | 400 | 360 | 760 | 610.98 | 6 | | **2** | 415 | 232 | 1.3 | 650 | 650 | 1300 | 934.44 | 11 | |
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| **Conclusion:** |
| We measured the power of three phase power using Two Wattmeter Method.  We analyzed resistive networks excited by DC sources using various network theorems. |

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