

INDEX

1. Preamble	1
2. Objective, Relevance and Outcome	2
3. List of Experiments	3
4. Text and Reference Books	4
5. Session Plan	5
6. Experimental Write-Up	6
6.1. Thevenin's Norton's and Maximum Power Transfer Theorems	6
6.1.1.1. Thevenin's Theorem	6
6.1.1.2. Norton's Theorem	9
6.1.1.3. Maximum Power Transfer Theorem	11
6.2. Super position Theorem and RMS Value of Complex Wave	15
6.2.1.1.1. Superposition Theorem	15
6.2.1.1.2. Rms Value of Complex Wave	17
6.3. Verification of Compensation Theorem	19
6.4. Reciprocity, Millman's Theorems	21
6.4.1.1.1. Millman's Theorem	21
6.4.1.1.2. Reciprocity Theorem	23
6.5. Locus Diagrams of RL and RC Series Circuits	25
6.6. Series and Parallel Resonance	28
6.7. Determination of Self & Mutual Inductances and Coefficient of Coupling	32

6.8. Z & Y Parameters	35
6.9. Transmission and Hybrid Parameters	38
6.10. Measurement of Active Power for Star and Delta CONNECTED Balanced Load	41
6.11. Measurement of Active Power for Star and Delta connected Balanced Loads	44
6.12. Measurement of 3 Phase Power by 2 Wattmeter Method	46
6.13. Simulation of DC Circuits	48
6.14. Dc Transient Response	49
6.15. Mesh Analysis	50
6.16. Nodal Analysis	51
7. Content Beyond Syllabus	52
8. Sample Viva Voce Questions	53
9. Sample External Laboratory Question Paper	57
10. Applications of the Laboratory	61
11. Precautions	62
12. Code of Conduct	63
13. Graphs ,if any	64