7

KG Reddy College of Engineering & Technology

(Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad) Chilkur (Village), Moinabad (Mandal), R. R Dist, TS-501504



Name of the laboratory: ELECTRICAL MACHINES LAB -II

Objectives of the lab:

- To understand the operation of synchronous machines
- To understand the analysis of power angle curve of a synchronous machine
- To understand the equivalent circuit of a single phase transformer and single phase induction motor
- To understand the circle diagram of an induction motor by conducting a blocked rotor test.

List of experiments:

- 1. O.C. & S.C. Tests on Single phase Transformer
- 2. Sumpner's test on a pair of single phase transformers
- 3. No-load & Blocked rotor tests on three phase Induction motor
- 4. Regulation of a three -phase alternator by synchronous impedance &m.m.f. methods
- 5. V and Inverted V curves of a three—phase synchronous motor.
- 6. Equivalent Circuit of a single phase induction motor
- 7. Determination of Xd and Xq of a salient pole synchronous machine
- 8. Load test on three phase Induction Motor
- 9. Separation of core losses of a single phase transformer
- 10. Efficiency of a three-phase alternator
- 11. Parallel operation of Single phase Transformers
- 12. Regulation of three-phase alternator by Z.P.F. and A.S.A methods
- 13. Heat run test on a bank of 3 Nos. of single phase Delta connected transformers
- 14. Measurement of sequence impedance of a three-phase alternator.
- 15. Vector grouping of Three Transformer
- 16. Scott Connection of transformer



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LIST OF EQUIPMENT

S.NO	DESCRIPTION
	WATTMETER L.P.F
1	
2	RECTIFIER
3	RHEOSTARTS(DOUBLE) 500 Ω /2A
4	RHEOSTARTS(SINGLE) 370 Ω /1.7 A
5	AUTO TRANSFORMER
	AUTO TRANSFORMER 3 - PHASE
6	AUTO TRANSFORMER 1-PHASE 15 A
	AUTO TRANSFORMER 1-PHASE
	TACHOMETER
7	D.C DHUNT GENERATOR
	BRAKE TEST ON D.C SHUNT MOTOR
	ACCESSORIES
8	ACCESSORIES
	O.C& S.C TEST
9	BRAKE TEST ON 3PHASE INDUCTION MOTOR
12	REGULATION OF 3MPHASE ALTERNATOR
13	ACCESSORIES
14	ACCESSORIES
15	PANEL BOX WITH POWDER COATED
16	MOVING IRON VOLTMETER
17	MOVING IRON VOLTMETER 0-300/600 V
18	MOVING IRON AMMETERS 5/10A
19	MOVING COIL VOLTMETERS 25/50 V
20	MOVING COIL VOLTMETERS 150/300V
21	MOVING COIL AMMETERS 1/2 A
22	MOVING COIL AMMETERS 10/20A
23	MOVING COIL AMMETERS 15/30 A
24	LOAD TEST ON D.C SHUNT GENERATOR
25	ACCESSORIES



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D.C 3 POINT STARTER LOAD TEST ON D.C COMPOUND GENERATOR D.C 3 POINT STARTER HOPKINS TEST LOC 3 POINT STARTER D.C 3 POINT STARTER LOC 3 POINT STARTER D.C 3 POINT STARTER LOC 3 POINT STARTER BRAKE TEST ON D.C COMPOUND MOTOR SEPERATION OF LOSSES LOC 3 POINT STARTER RESSITIVE LAOD1-PHASE RESSITIVE LAOD1-PHASE RESSITIVE LAOD1-PHASE PANEL BOPARD TERMINALS 25AMPS LOC 3 POINT STARTER RESSITIVE LAOD1-PHASE LOC AMMETERS DIGITAL RESSITIVE LAOD1-PHASE RESSITIVE LAOD1-PHA	26	LOAD TEST ON D.C SHUNT MOTOR
D.C 3 POINT STARTER	27	D.C 3 POINT STARTER
30 HOPKINS TEST 31 D.C 3 POINT STARTER 32 D.C SERIES MACHINE FIELD TEST 33 D.C 3 POINT STARTER 34 BRAKE TEST ON D.C COMPOUND MOTOR 35 D.C 3 POINT STARTER 36 SEPERATION OF LOSSES 37 D.C 3 POINT STARTER 38 RESSITIVE LAOD1-PHASE 39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD	28	LOAD TEST ON D.C COMPOUND GENERATOR
31 D.C 3 POINT STARTER 32 D.C SERIES MACHINE FIELD TEST 33 D.C 3 POINT STARTER 34 BRAKE TEST ON D.C COMPOUND MOTOR 35 D.C 3 POINT STARTER 36 SEPERATION OF LOSSES 37 D.C 3 POINT STARTER 38 RESSITIVE LAODI-PHASE 39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 10/20A 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD	29	D.C 3 POINT STARTER
D.C SERIES MACHINE FIELD TEST D.C 3 POINT STARTER BRAKE TEST ON D.C COMPOUND MOTOR D.C 3 POINT STARTER BRAKE TEST ON D.C COMPOUND MOTOR D.C 3 POINT STARTER RESITIVE LAODI-PHASE RESSITIVE LAODI-PHASE TACHOMETERS DIGITAL PANEL BOPARD TERMINALS 25AMPS LP.S.T SWITCH RHEOSTARTS 500 Ω/2 A RHEOSTARTS 500 Ω/1 A RHEOSTARTS 500 Ω/1 A RHEOSTARTS 500 Ω/1 A RHEOSTARTS 370 Ω/1.7 A BACKLITE M.C VOLTMETERS PORTABLE 0-150/300V M.C AMMETERS PORTABLE 10/20A M.C AMMETERS PORTABLE 1/2A SUMPNERS TEST SETUP SOOT CONNECTION TEST SETUP SOOT CONNECTION TEST SETUP NO LOPAD BLOKED ROTOR TEST I-PASE INDUCTION MACHINE V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR XD AND XQ OF SALINET POLE MACHINE EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR TRANSFORMERS PARREL OPERATION OF 1-PAHSE TRANSFORMERS R-L 3-PHASE LOAD 10A 3-PHASE INDUCTIVE LOAD MULTIMETERS	30	HOPKINS TEST
33 D.C 3 POINT STARTER 34 BRAKE TEST ON D.C COMPOUND MOTOR 35 D.C 3 POINT STARTER 36 SEPERATION OF LOSSES 37 D.C 3 POINT STARTER 38 RESSITIVE LAODI-PHASE 39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1.7 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	31	D.C 3 POINT STARTER
34 BRAKE TEST ON D.C COMPOUND MOTOR 35 D.C 3 POINT STARTER 36 SEPERATION OF LOSSES 37 D.C 3 POINT STARTER 38 RESSITIVE LAODI-PHASE 39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1.7 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	32	D.C SERIES MACHINE FIELD TEST
35 D.C 3 POINT STARTER 36 SEPERATION OF LOSSES 37 D.C 3 POINT STARTER 38 RESSITIVE LAOD1-PHASE 39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/1 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD	33	D.C 3 POINT STARTER
36 SEPERATION OF LOSSES 37 D.C 3 POINT STARTER 38 RESSITIVE LAOD1-PHASE 39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 50 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD	34	BRAKE TEST ON D.C COMPOUND MOTOR
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38 RESSITIVE LAOD1-PHASE 39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 50 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	36	SEPERATION OF LOSSES
39 TACHOMETERS DIGITAL 40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 50 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	37	D.C 3 POINT STARTER
40 PANEL BOPARD TERMINALS 25AMPS 41 D.P.S.T SWITCH 42 S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 500 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	38	RESSITIVE LAOD1-PHASE
1 D.P.S.T SWITCH 2 S.P.S.T SWITCH 3 RHEOSTARTS 500 Ω/2 A 4 RHEOSTARTS 500 Ω/1 A 4 RHEOSTARTS 500 Ω/1 A 4 RHEOSTARTS 50 Ω/5 A 4 RHEOSTARTS 370 Ω/1.7 A 4 BACKLITE 4 M.C VOLTMETERS PORTABLE 0-150/300V 4 M.C AMMETERS PORTABLE 10/20A 5 M.C AMMETERS PORTABLE 1/2A 5 SUMPNERS TEST SETUP 5 SCOOT CONNECTION TEST SETUP 5 NO LOPAD BLOKED ROTOR TEST 5 1-PASE INDUCTION MACHINE 5 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 5 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 5 XD AND XQ OF SALINET POLE MACHINE 5 ACCESSORIES 5 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 6 R-L 3-PHASE LOAD 10A 6 3-PHASE INDUCTIVE LOAD 6 3-PHASE CAPACTIVE LOAD	39	TACHOMETERS DIGITAL
S.P.S.T SWITCH 43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 50 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD	40	PANEL BOPARD TERMINALS 25AMPS
43 RHEOSTARTS 500 Ω/2 A 44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 50 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 55 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD	41	D.P.S.T SWITCH
44 RHEOSTARTS 500 Ω/1 A 45 RHEOSTARTS 50 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD	42	S.P.S.T SWITCH
45 RHEOSTARTS 50 Ω/5 A 46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	43	RHEOSTARTS 500 Ω/2 A
46 RHEOSTARTS 370 Ω/1.7 A 47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	44	RHEOSTARTS 500 Ω/1 A
47 BACKLITE 48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	45	RHEOSTARTS 50 Ω/5 A
48 M.C VOLTMETERS PORTABLE 0-150/300V 49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	46	RHEOSTARTS 370 Ω/1.7 A
49 M.C AMMETERS PORTABLE 10/20A 50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	47	BACKLITE
50 M.C AMMETERS PORTABLE 1/2A 51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	48	M.C VOLTMETERS PORTABLE 0-150/300V
51 SUMPNERS TEST SETUP 52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V^CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	49	M.C AMMETERS PORTABLE 10/20A
52 SCOOT CONNECTION TEST SETUP 53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	50	M.C AMMETERS PORTABLE 1/2A
53 NO LOPAD BLOKED ROTOR TEST 54 1-PASE INDUCTION MACHINE 55 V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	51	SUMPNERS TEST SETUP
54 1-PASE INDUCTION MACHINE 55 V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	52	SCOOT CONNECTION TEST SETUP
55 V ^ CURVES ON 3-PHASE SYNCHRONOUS MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	53	NO LOPAD BLOKED ROTOR TEST
55 MACHINE 56 EQUIVALENT CIRCUIT OF 1-PHASE INDUCTION MAOTOR 57 XD AND XQ OF SALINET POLE MACHINE 58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	54	1-PASE INDUCTION MACHINE
INDUCTION MAOTOR XD AND XQ OF SALINET POLE MACHINE ACCESSORIES PARREL OPERATION OF 1-PAHSE TRANSFORMERS R-L 3-PHASE LOAD 10A 2 3-PHASE INDUCTIVE LOAD 3-PHASE CAPACTIVE LOAD MULTIMETERS	55	
58 ACCESSORIES 59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	56	_
PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	57	XD AND XQ OF SALINET POLE MACHINE
59 PARREL OPERATION OF 1-PAHSE TRANSFORMERS 61 R-L 3-PHASE LOAD 10A 62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS		
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62 3-PHASE INDUCTIVE LOAD 63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS	61	
63 3-PHASE CAPACTIVE LOAD 64 MULTIMETERS		
64 MULTIMETERS		



KG Reddy College of Engineering & Technology
(Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad)
Chilkur (Village), Moinabad (Mandal), R. R Dist, TS-501504



66	RHEOSTARTS 100Ω /2.5A
67	BOOSTER TRANSFORMER 230V/0-50V @15A



