Subject: Electrical Fundamentals Practical

S/N	TASK NUMBER	BASIC PRACTICAL TASKS	PERFORMED ON	LEVEL
1.	3-01	Measure the single phase, three phase, andDC Voltage by AMM/Multimeter.	Lab	2
2.	3-02	Connect the battery in series and paralleland measure the voltage by multimeter	Battery Cart	2
3.	3-03	Charge the single and multiple batterysuitable charger	Lab	2
4.	3-04	Measure the Voltage by thermocouplewith the simple experiment.	Lab	2
5.	3-05	Verify the ohm law with experiments.	Lab	2
6.	3-06	Verify the Kirchhoff law with experiment.	Lab	2
7.	3-07	Perform the connection of appliances like,Switch, relay, shunt, bulb, ammeter, voltmeter, frequency meter, Fuse, circuitbreaker, current limiter.	Lab	2
8.	3-08	Connect the resister in series, parallel and in combination and measure the value of resister through AMM/DMM. Compare the measured and calculated value.	Lab	2
9.	3-09	With the simple project verify the use of potentiometer and rheostat.	Lab	2
10.	3-10	Find out unknown resistance value by using Wheatstone Bridge	Lab	2
11.	3-11	With the simple project verify the use of VDR, and thermistors.	Lab	2
12.	3-12	Connect the capacitor in series, parallel and in combination and measure the value of capacitance through capacitor meter. Compare the measured and calculated value.	Lab	2
13.	3-13	Test the electrolyte capacitor for serviceability.	Lab	2
14.	3-14	Connect the inductor in series and parallel and measure the value of inductance through inductor meter. Compare the measured and calculated value	Lab	2
15.	3-15	Verify the of faradays law of electromagnetic Induction	Lab	2
16.	3-16	Perform the brush inspection of DC generator.	Lab	2
17.	3-17	Test the armature in Growler and through multimeter/test lamp	Lab	2

18.	3-18	Perform the Visual Inspection of DC Motor & Operate the DC motor.	Lab	2
19.	3-19	Perform the speed control of DC motor and measure the RPM of DC motor.	Lab	2
20.	3-20	Perform the direction reversing method of DC motor.	Lab	2
21.	3-21	Perform the Installation of Brush in DC motor & DC Generator.	Lab	2
22.	3-22	Perform the Visual Inspection of Starter Generator and check for brush wear and replace if damaged one.	Lab	2
23.	3-23	Measure field and armature resistance of DC machines	Lab	2

24.	--	3.12	3-24	Test for continuity and insulation resistance of DC machine	Lab	2
25.	--	3.12	3-25	Practice dismantling and assembling in DC Motor/ Generator	Lab	2
26.	--	3.13	3-26	Measure three phase current, voltage, power and power factor in 3 phase circuit with lamp load	Lab	2
27.	--	3.13	3-27	Ascertain use of neutral by identifyingwires of a 3-phase 4 wire system and find the phase sequence using phase sequence meter	Lab	2
28.	--	3.13	3-28	Determine effect of broken neutral wire in three phase four wire system	Lab	2
29.	--	3.13	3-29	Perform the star and delta wiring.	Lab	2
30.	--	3.13	3-30	Determine the relationship between Line and Phase values for star and delta connections	Lab	2
31.	--	3.13	3-31	Perform the interlocking connection of power supply	Lab	2
32.	--	3.13	3-32	Control the intensity of light by simple circuit.	Lab	2
33.	--	3.14	3-33	Measure the power by using watt meter and VAR meter	Lab	2
34.	--	3.15	3-34	Perform the use of voltage transformer (step up and step down) by simple circuit	Lab	2
35.		3.15	3-35	Perform the use of current transformer by using simple circuit.	Lab	2
36.	--	3.15	3-36	Perform the testing of transformers (Current and Voltage)	Lab	2
37.	--	3.15	3-37	Measure the input and output Voltage of Variac.	Lab	2

38.	--	3.15	3-38	Fabricate the Transformer rectifier unit of 12V DC/24 V DC.	Lab	2
39.	--	3.16	3-39	Fabricate the RC, LC, RLC filter and utilize in filtration purpose in TRU.	Lab	1
40.	--	3.18	3-40	Operate the AC motors & Perform reversing of direction of rotation of single phase and three phase Induction ACmotors.	Lab	2
41.	--	3.18	3-41	Perform the speed control of single phase and three phase Induction AC Motors.	Lab	2
42.	--	3.18	3-42	Connect the single phase and three phase synchronous motor with starter.	Lab	2
43.	--	3.18	3-43	Perform the connection of push to start and push to stop for electrical appliances light motors and lights	Lab	2
44.	--	-----	3-44	Perform the operation of timer relay.	Lab	2
45.	--	-----	3-45	Demonstrate the operation of overload sensor with experiments.	Lab	2
46.	-----	-----	3-46	Demonstrate the operation of overvoltage and under voltage relay with experiments.	Lab	2