

**DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

LIST OF EXPERIMENTS

Electrical Machines - 1 Lab

S.No	Name of Equipment	Unit Price	Quantity	Cost
1	DC Shunt generator set	45549.8	2	91099.6
2	DC Shunt Motor	29327.5	2	58655
3	Shunt Identical Machines	58485.95	1	58485.95
4	Compound generator coupled with Shunt motor	45412.1	1	45412.1
5	Series generator coupled to DC Shunt motor	45412.1	1	45412.1
6	Rheostat 200ohms,1.7A	1696.6	7	11876.2
7	Rheostat 200ohms,1.7A	1696.6	2	3393.2
8	Rheostat 300ohms,1.4A	1696.6	3	5089.8
9	Single phase resistive load 220V 15A	12342	3	37026
10	3 Point starters	2120	8	16960
11	Tacho meter	1870	8	14960
12	3Phase rectifier 440V 3/Ph, 220 O/P, 100A	106250	1	106250
13	Voltmeter MC (0-150/300)V	1601	3	4803
14	Ammeters MC (0-10/20)A	1689	3	5067
15	Ammeters MC (0-1/2)A	1689	2	3378
16	Ammeters MC (0-10/20)A	1688.95	4	6755.8
17	Ammeters MC (0-1/2)A	1688.95	7	11822.65
18	Ammeter MC (0-2.5/5)A	1800	1	1800
19	Rheostat 1000 ohms,1.2A	3179	2	6358
20	Knife switch spst	519.35	2	1038.7
21	Single phase resistive load 220V 20A	11815	3	35445
22	Voltmeter (MC) (0-300)V	1800	3	5400

23	Single phase resistive load 220V 10A	10528	2	21056
24	3 Point starters	2184	1	2184
25	Knife switch TPDT	2762.5	1	2762.5
26	Ammeters MC (0-2)A	1280	5	6400
27	Rheostat 360 ohms,1.2A	1920	3	5760
28	Voltmeter (MC) (0-300)V	1280	5	6400
29	3 Point starters	2184	2	4368
30	Panel Boards	8075	9	72675
31	Single phase resistive load 220V 15A	13013	1	13013
32	Ammeters MC (0-1/2)A	1219	5	6095
33	Voltmeter (MC) (0-300)V	1219	4	4876
34	5 H.P two DC Identical series Machines 3Kw, 220V, 1500rpm	62042	1	62042
35	2 Point starter	2240	1	2240
36	5 H.P DC Compound motor with BDA	39787	1	39787
37	4 point starter	2240	1	2240
38	Ammeter MC (0-5/10)A	1120	6	6720
39	Am Meter(M.C)10/20A	1120	1	1120
40	Panel Board	7690.48	1	7690.48
41	3HP DC Series Motor with BDA	31224.45	1	31224.45
42	2 Point Starter	2880	1	2880
43	Rheostat (300/1.4A)	1234.29	1	1234.29
44	Rheostat (18/5A)	2163.81	1	2163.81
45	4 point starter	4068.57	1	4068.57
46	Battery Charger Kit	6689.52	1	6689.52
47	MCDC (0-300V)	1051.43	2	2102.86
48	MCDC (0-10/20A)	1173.33	1	1173.33
Total Cost				895453.91

Electrical Machines Lab-I (DCMT Lab)

S No	Name of the Experiment
1	Magnetization characteristics of DC shunt generator. Determination of critical field resistance and critical speed.
2	Brake test on DC shunt motor. Determination of performance curves.
3	Hopkinson's test on DC shunt machines. Predetermination of efficiency.
4	Swinburne's test and Predetermination of efficiencies as Generator and Motor.
5	Speed control of DC shunt motor by Field and armature Control.
6	Oc& SC test on single phase transformer.
7	Sumpner's test on single phase transformer.
8	Parallel operation of Single phase Transformers
9	Separation of core losses of a single phase transformer
10	Scott connection of transformers

