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

LIST OF EXPERIMENTS

Electrical Machines-II Lab

S.No	Name of Equipment	Unit Price	Quantity	Cost
1	Static excitation unit	5471.45	1	5471.45
2	Single phase Capacitor Start IM	23958.1	1	23958.1
3	3-Phase Alternator coupled with DC shunt motor	59386.95	1	59386.95
4	1 phase autor transformers 0-270V, 20A	8428.45	1	8428.45
5	1-Ph Wattmeter U.P.F, Dynamometer 5/10 A, 150/300/600V	2203.2	1	2203.2
6	Voltmeter MI (0-300/600)V	1470	4	5880
7	Voltmeter MI (0-150/300)V	1470	3	4410
8	Voltmeter MI (0-75/150)V	1470	2	2940
9	Ammeter MI (0-10/20)A	1470	1	1470
10	Voltmeter MI(0-15/30) V	1470	1	1470
11	Ammeter MI(0-5/10) A	1470	2	2940
12	Transformer 1 ph 2 KVA 115/230V	9222.5	2	18445
13	Panal Boards	6152.38	2	12304.76
14	1 phase autor transformers 0-230V, 10A	3740	3	11220
15	1-Ph Wattmeter U.P.F, Dynamometer 10/20 A, 150/300/600V with reversible switch	2800	3	8400
16	1-Ph Wattmeter U.P.F, Dynamometer 10/20 A, 150/300/600V	2203.2	3	6609.6
17	Voltmeter MI (0-300/600)V	1469.75	1	1469.75
18	Voltmeter MI (0-300/600)V	1445	6	8670
19	Voltmeter MI (0-150/300)V	1407.6	3	4222.8
20	Voltmeter MI (0-150/300)V	1445	1	1445

21	Voltmeter MI (0-75/150)V	1445	4	5780
22	Ammeter MI (0-10/20)A	1469.65	1	1469.65
23	Ammeter MI (0-10/20)A	1020	4	4080
24	Ammeter MI (0-20)A	2040	2	4080
25	Ammeter MI(0-10) A	1360	5	6800
26	1 Ph auto transformer 230V, 15A	8092	2	16184
27	3 phase autor transfomer 0-440,20A	24310	2	48620
28	Knife switch DPDT	1385	1	1385
29	Knife switch TPDT	2762.5	1	2762.5
30	Transformer 1 ph 2 KVA 115/230V	10072.5	3	30217.5
31	Transformer 1 ph 2 KVA 115/230V	9222.5	2	18445
32	3 Ph Squirel cage induction motor with mechanical loading arrange ment 5H.P, 415V	23958	2	47916
33	3 Ph slipring Induction motor 5H.P,415V	53176	1	53176
34	1 Ph auto transformer 230V, 15A	7055	4	28220
35	1-Ph Wattmeter U.P.F, Dynamometer 10/20 A, 150/300/600V	2422.33	1	2422.33
36	Panal Boards	8075	3	24225
37	Wattmeter L.P.F(2.5/5)A, 75/150/300V	6450	2	12900
38	Wattmeter L.P.F(1/2)A, 150/300V	5355	2	10710
39	3 phase resistive load 440V, 10A	20144	1	20144
40	1 phase autor transformers 0-230V, 10A	3840	1	3840
41	1 ph universal motor with BD	17232	1	17232
42	Panal Boards	6460	5	32300
43	3-Phase Alternator coupled with DC shunt motor	61368	2	122736
44	3-Phase Alternator coupled with DC shunt motor(non salient)	60536	1	60536
45	Tacho meter	2240	3	6720
46	1-Ph Wattmeter U.P.F, Dynamometer 5/10 A,	2072	1	2072

	150/300/600V			
47	Voltmeter MI (0-300/600)V	1224	5	6120
48	Ammeter MI(0-10) A	1176	5	5880
49	Rheostat 1000 ohms,1.2A	4064	4	16256
50	Phase seqvence meter	936	1	936
51	Digital frequecy meter	992	1	992
52	Synchronous motor 5H.p, 440V	42040	1	42040
53	Starter for sychronous motor	10600	1	10600
54	Rheostat 200ohms,1.7A	907	2	1814
55	Tacho meter	2133	2	4266
56	1-Ph Wattmeter U.P.F, Dynamometer 5/10 A, 150/300/600V	2064	4	8256
57	Voltmeter MI (0-300)V	1328	6	7968
58	Voltmeter MI (0-300/600)V	1328	2	2656
59	Ammeter MI(0-5) A	1328	2	2656
60	Ammeter MI(0-10) A	1328	6	7968
61	1 phase autor transformers 0-230V, 10A	3840	1	3840
62	3 ph variable inductor440V 10A	15032	1	15032
63	PT 250909 (110V/440V P.T-50)	594.29	1	594.29
64	DOL Starter	3756.19	1	3756.19
65	Automatic Star Delta Stater	12190.48	1	12190.48
66	Synchroscope	2171.43	1	2171.43
67	Megger (1000V)	1493.3	1	1493.3
68	Digital Ohmmetet with Kit	3702.86	1	3702.86
69	CT 2510-02-25/5A 5VA	510.48	1	510.48
70	Watmeter (5/10A-150/300V-SPW1)	1813.33	1	1813.33
71	Watmeter (2.5/5A-75/150/300V-SPLW1)	4510.48	1	4510.48
72	Digital Multimeter CIE-122	2118	4	8472

73	Wattmeter-10/20A-150/300/600V-SPW1(Rev Switch)-UPF	2651	10	26514
74	Wattmeter-1/2A-150/300/600V SPLW (Rev Switch)-LPF	5234	4	20937
75	Wattmeter-10/20A-150/300/600V-SPLW(Rev Switch)-LPF	5234	4	20937
76	MIAC 0-1/2A	1090	4	4358
77	Ammeter MI (0-1/2)A	1470	6	8820
Total Cost				**1034379**

Electrical Machines Lab-II (I&SM Lab)

S No	Name of the Experiment
1	Brake test on three phase Induction Motor
2	No–load & Blocked rotor tests on three phase Induction motor
3	Regulation of a three –phase alternator by synchronous impedance &m.m.f. Methods
4	Regulation of three–phase alternator by Potier triangle method
5	V and Inverted V curves of a three—phase synchronous motor
6	Determination of Xd and Xq of a salient pole synchronous machine
7	Equivalent circuit of single phase induction motor
8	Speed control of induction motor by V/f method.
9	Determination of efficiency of three phase alternator by loading with three phase induction motor.
10	Power factor improvement of single phase induction motor by using capacitor.