

J. T. MAHAJAN POLYTECHNIC, FAIZPUR.

Department of Mechanical Engineering.

Name of Laboratory: - Heat Engine (Power Engg) Lab**Built Up Area 164.85 sqm**

Sr.No	Description of items	Qty	Cost
1	4 stroke / 2 cylinder / water cooled 10 H.P. / vertical diesel engine test rig with morse test facility with eddy current dynamometer	01	1,56,750=00
2	Single cylinder vertical diesel engine with suitable dynamometer	01	15,675=00
3	4 cylinder 4 stroke petrol engine test rig with hydraulic brake dynamometer	01	1,80,733=00
4	Cut section of models / Models		
	1) Steam engine	01	890
	2) Different types of boiler		
	a) Locomotive boiler	01	1025
	b) Lancashire boiler	01	1025
	c) Babcock boiler	01	1025
	d) Cornish boiler	01	1025
	3) Green economizers	01	990
	4) Water gauge	01	410
	5) Lever safety valve	01	315
	6) Sudgen super heater	01	990
	7) Spring loaded safety valve	01	315
	8) Combined high steam and low water	01	550
	9) Dead weight safety valve	01	315
	10) Burdon pressure gauge	01	248
	11) Steam top valve	01	751=75
	12) Feed check valve	01	751=75
	13) Blow off cock	01	375=40
	14) Gas turbine	01	2932=30
	15) Steam injector	01	751=75
	16) Reducing valve	01	601=40
	17) Fusible plug	01	465=60
	18) Expansion steam trap	01	555=80
	19) Throttle valve	01	134=80
	20) Atomic power plant	01	1116=00
	21) Models of ammonia ice plant	01	836=80
	22) Dead weight pressure gauge	01	6150=00
5	Single cylinder two stroke petrol engine with rope brake dynamometer	01	20504=64
6	Cut models of four stroke diesel engine	01	49005=00
7	Cut models Four stroke petrol engine	01	30492
8	Cut models Gas turbine rotor	01	2831=84
9	Cut models ignition system	01	950=50
10	Wankel engine	01	1500
11	Impulse turbine	01	652=96

12	Reaction turbine	01	972=40
13	Models of various types of clutches ,gears box and brakes	04	9121=28
14	Air conditioning plant	01	1,65,000=00
15	Wall Charts	Lb	8346=35
16	Domestic refrigerator trainer	01	41769=00
17	Models of petrol engine (4S)	01	710
18	Models of petrol engine (2S)	01	710
19	Models of Diesel engine (4S)	01	710
20	Solex, Cartor, SU, Zenith carburetor	01 Each	1550=00
21	Fuel supply system of petrol engine	01	1125=00
22	Fuel supply system of Diesel engine	01	1080=00
23	Cut section model of Hermetically sealed compressor	01	400
24	Solar water Heater 125 Lit Capacity	01	28,300/-
25	Solar Photovoltaic Cell	01	6,360/-
26	Combined separating and throttling calorimeter	01	41,800/-
27	Ice Plant test rig	01	83,600/-
28	Water cooler test rig	01	65,312/-
29	Voltage regulator	01	4,703/-
30	Water cooler	01	9,000/-
31	Domestic refrigerator model	01	7,000/-
32	Two stroke I.C. engine (Maruti, four stroke)	01	10,000/-
33	Wind Mill	01	59,000/-
34	Air compressor test rig two stage 7.5 HP motor	01	37,762/-
35	Thermal conductivity of metal bar	01	10,000=00
36	Thermal conductivity of insulating powder	01	9500=00
37	Heat transfer in natural convection	01	11500=00
38	Heat transfer of fin-pin	01	14400=00
39	Heat transfer in forced convection	01	15250=00
40	Stefan boldzman apparatus	01	8500=00
41	Critical flux	01	9500=00
42	Emissivity	01	11500=00
43	Parallel flow / counter flow	01	10,000=00
		Total	1168122=32