

145, GOVERNMENT POLYTECHNIC COLLEGE,  
PALACODE – 636 808.

Dept.: BASIC ENGINEERING – ENGINEERING PHYSICS LAB

LIST OF MAJOR EQUIPMENTS

Sl. No	ITEM	SUB	QUANTITY	REMARKS
1	SOLAR CELL KIT	PHYSICS	08	WORKING
2	LOGIC GATES		11	WORKING
3	PN JUNCTION DIODE KIT		10	WORKING
4	SPECTROMETER		7	WORKING
5	VERNIER MICROSCOPE		5	WORKING
6	BATTERY ELEMINATOR		22	WORKING
7	PH METER	CHEMISTRY	02	WORKING
8	TDS METER		02	WORKING

**145, GOVERNMENT POLYTECHNIC COLLEGE, PALA CODE-636808**

DEPT: CIVIL ENGINEERING

## LIST OF MAJOR EQUIPMENTS

SI.NO	ITEM	QUANTITY	REMARKS
<b>MATERIAL TESTING LABORATORY-I</b>			
1	UTM	1 no	
2	Rock well-cum-Brinell Hardness testing machine	1 no	
3	Torsion testing machine	1 no	
4	. Impact testing machine for Izod and Charpy test	1 no.	
5	Deflection test verification of Maxwell theorem with magnetic stand, deflection gauge, weights and sets of beam (floor type)	1 no.	
6	Weighing balance-digital 10 kg capacity one gram accuracy with battery backup 8 hours/direct electrical connection	1 no	
7	Compression testing machine 100 tons capacity (electrical operated)	1 no.	
8	Flexural Testing Machine for Tiles	1 no	
9	Spring testing Apparatus	1 no	
10	Double shear test apparatus	1 no	
<b>MATERIAL TESTING LABORATORY-II</b>			
11	Direct shear machine with complete accessories	1 no.	
12	Devals attrition testing machine with complete accessories	1 no	
13	Dorry"s abrasion testing machine with complete accessories	1 no	
14	Aggregate impact testing machine with complete accessories	1 no	
15	Crushing strength apparatus	1 no	
<b>SURVEYING PRACTICE (I&amp;II)</b>			
16	Dumpy level	10 nos.	
17	Vernier Theodolite	6 nos	
18	Total Station	3 nos	
<b>CONCRETE TECHNOLOGY PRACTICAL</b>			
19	Compaction factor apparatus	1 no.	
20	Vee Bee Consistometer	1 no.	
<b>HYDRAULICS LABORATORY</b>			
21	Bernoulli"s theorem apparatus (closed circuit)	1 No	
22	Venturimeter/Orificemeter apparatus (closed circuit) with all accessories	1 No	
23	Pipe Friction apparatus (closed circuit) with all accessories	1 No	
24	Orifice/Mouthpiece apparatus (closed circuit) with all accessorie	1 No	
25	Orifice/Mouthpiece apparatus (closed circuit) with all accessories	1 No	
26	Notch apparatus (closed circuit) with accessories	1 No	
27	Reciprocating Pump test rig with accessories	1 No	
28	Centrifugal Pump test rig	1 No	
29	Pelton wheel Turbine	1 No	
30	Francies Turbine	1 No	

**145-GOVERNMENT POLYTECHNIC COLLEGE**  
**DEPT: MECHANICAL ENGINEERING**

**LIST OF MAJOR EQUIPMENTS**

**4020360 MANUFACTURING TECHNOLOGY-I PRACTICAL**

<b>S.NO</b>	<b>ITEM</b>	<b>QUANTITY</b>	<b>REMARKS</b>
1	Center Lathe 4 ½ ‘ Bed length	10	
2	Arc welding Transformer	2	
3	Gas welding unit (Oxygen and acetylene cylinder)	1	
4	Spot welding machine	1	

**4020370 MEASUREMENTS AND METROLOGY PRACTICAL**

<b>S.NO</b>	<b>ITEM</b>	<b>QUANTITY</b>	<b>REMARKS</b>
1	Metallurgical microscope	1	

**4020540 PROCESS AUTOMATION PRACTICAL**

<b>S.NO</b>	<b>ITEM</b>	<b>QUANTITY</b>	<b>REMARKS</b>
1	Pneumatic Trainer Kit	1	
2	Hydraulics Trainer Kit	1	
3	PLC kit	1	

**4020550 THERMAL ENGINEERING PRACTICAL**

<b>S.NO</b>	<b>ITEM</b>	<b>QUANTITY</b>	<b>REMARKS</b>
1	Open Cup Apparatus	2	
2	Closed Cup Apparatus	2	
3	Redwood Viscometer	2	
4	Say bolt Viscometer	1	
5	Four stroke Petrol Engine Model	1	
6	Four stroke Diesel Engine Model	1	
7	Two stroke Petrol Engine Model	1	

**4020561 COMPUTER INTEGRATED MANUFACTURING PRACTICAL**

S.NO	ITEM	QUANTITY	REMARKS
3	CNC Trainer Lathe	1	
4	CNC Trainer Mill	1	

#### 4020653 AUTOMOBILE TECHNOLOGY PRACTICAL

S.NO	ITEM	QUANTITY	REMARKS
1	Automobile Mechanic's tools-Complete set	2SET	
4	Compressor	1	
5	4 Stroke petrol Engine	1	
6	4 Stroke diesel Engine	1	
9	MPFI	1	
10	Inline Fuel injection Pump	1	
11	CRDI	1	
12	Injectors	1	
13	Clutch set arrangement with tools	1	
14	Compleat gear box with tools	1	
15	Complete steering arrangements	1	

#### 4020350 MACHINE DRAWING AND CAD PRACTICAL

S.NO	ITEM	QUANTITY	REMARKS
1	Personal computer	8	

#### LIST OF EXPERIMENTAL SETUP

#### 4020550 THERMAL ENGINEERING PRACTICAL

S.NO	ITEM	QUANTITY	REMARKS
1	Four stroke Petrol Engine Test rig	1	
2	Four stroke Diesel Engine Test rig	1	
3	Multi-cylinder Petrol Engine Test rig	1	
4	Air Compressor Test rig	1	
5	Refrigeration Test rig	1	

145, GOVERNMENT POLYTECHNIC COLLEGE,  
PALACODE – 636 808.

Dept.: ELECTRICAL ELECTRONICS ENGINEERING

LIST OF MAJOR EQUIPMENTS

Sl. No.	ITEM	QUANTITY	REMARKS
1	DC Shunt Motor	1	Working
2	DC Series Motor	1	Working
3	DC Compound Motor	1	Working
4	Squirrel Cage Induction Motor	1	Working
5	Slip Ring Induction Motor	1	Working
6	Single Phase Induction Motor	1	Working
7	Alternator	2	Working
8	Generator	2	Working
9	Resistive Load	4	Working
10	DC Rectifier	1	Working
11	Auto Transformer	2	Working
12	Transformer oil Test kit	1	Working
13	Lift Controller kit	1	Working
14	Belt Conveyor	1	Working
15	Water tank Level Control kit	1	Working
16	Regulated Power Supply	10	Working
17	RSS Meter	1	Working
18	Megger	1	Working
19	Stepper Motor	1	Working
20	Servo Motor	1	Working

21	Micro Oven	1	Working
22	Winding Machine	1	Working
23	Micro Controller kit	15	Working
24	PLC Trainer kit	1	Working
25	Function Generator	4	Working
26	CRO	5	Working
27	Synchroscope kit	1	Working
28	Meters(Ammeter,Voltmeter,WattMeter)	100	Working
29	Energy Meter	1	Working
30	Sodium Vapour Lamp, Mercurry Vapour Lamp	1	Working

145, GOVERNMENT POLYTECHNIC COLLEGE,  
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Dept.: ELECTRONICS AND COMMUNICATION ENGINEERING

LIST OF MAJOR EQUIPMENTS

Sl. No.	ITEM	QUANTITY	REMARKS
1	Digital Function Generator	5 Nos.	
2	Variable DC Power Supply	8 Nos.	
3	Dual Trace CRO Scientific make	4 Nos.	
4	Dual Trace CRO Vartech make	2 No.	
5	Analog Multimeter	3 Nos.	
6	Digital Multimeter	10 Nos.	
7	LPC 2148 Trainer kit with Interface Boards	8 Nos.	
8	FPGA Trainer kit with Interface Boards	8 Nos.	
9	89C52 Microcontroller kit with Interface Board	12 Nos.	
10	PSK modulation and Demodulation kit	2 Nos.	
11	FSK modulation and Demodulation kit	2 Nos.	
12	ASK modulation and Demodulation kit	1 Nos.	
13	PWM modulation and Demodulation kit	1 Nos.	
14	Fiber optic link Analog and Digital Trainer kit	2 Nos.	
15	PLC Trainer kit	2 Nos.	
16	Acer make Desk Top computers Core 2 Device 2.93 GHZ 2.GB Ram, with Monitor, Key Board, Mouse	18 Nos.	
17	Single Trace CRO vartech make	1 Nos.	
18	Wattmeters	4 Nos.	
19	Attest make Dual Trace CRO	3 Nos.	
20	D.C. Regulated Power Supplies	10 Nos.	
21	D.C. Voltmeters,	78 Nos.	
22	D.C. Ammeters	77 Nos.	

145 GOVERNMENT POLYTECHNIC COLLEGE PALACODE  
DEPARTMENT OF MECHANICAL ENGINEERING TOOL & DIE  
LIST OF MAJOR EQUIPMENTS

4022360 - MANUFACTURING TECHNOLOGY PRACTICAL

S.NO	ITEM	QUANTITY	REMARKS
1	Center Lathe 4 ½ ' Bed length	10	
2	Upright drilling machine	1	
3	Radial drilling machine	1	
4	Pillar Drilling Machine	1	
5	Tool and Cutter Grinding Machine	1	

4022340-Computer Aided Machine and Tool Drawing

S.NO	ITEM	QUANTITY	REMARKS
1	Personal Computer	5	
2	Printer	1	

32256 - JIGS AND FIXTURES PRACTICAL

S.NO	ITEM	QUANTITY	REMARKS
1	Shaping Machine	3	
2	Vertical Milling Machine	1	
3	Surface Grinding Machine	1	
4	Universal Milling Machine	1	

32255 - PRESS TOOLS I & II

S.NO	ITEM	QUANTITY	REMARKS
1	MECHANICAL POWER PRESS(15 TONS - 100 TONS)	1	

32266 PLASTIC MOLDS PRACTICAL

S.NO	ITEM	QUANTITY	REMARKS
1	Hand Injection Moulding Machine	1	
2	Hand Injection Blow Moulding Machine	1	