

**Maharaja Ranjit Singh Punjab Technical University, Bathinda**

Name of Item:		Purchase of Equipment for Setting up of Workshop at PIT Rajpura.	
Sr. No.	Description of Item	Qty.	Unit
1	Steel scale 12"	72	No.
2	Vernier caliper 150mm	3	No.
3	Outside micro metre (0-25mm)	1	No.
4	Outside micro metre (25-50mm)	1	No.
5	Outside caliper (Spring type) 6"	15	No.
6	In side caliper (Spring Type) 6"	15	No.
7	Surface gauge 12"	3	No.
8	Try Square 6"	45	No.
9	Flat file 12" (smooth)	5	No.
10	Flat file 12" (Bastard)	25	No.
11	Flat File 8" (Smooth)	5	No.
12	Flat file 8" (Bastard)	5	No.
13	Triangular file 8" (Smooth)	5	No.
14	Half Round file 10" (Smooth)	5	No.
15	Round File 8" (Bastard)	5	No.
16	Centre Punch 6"	12	No.
17	Ball peen Hammer (500 gm)	15	No.
18	Knurling Tool	5	No.
19	Dot Punch 6"	15	No.
20	Spanner Set (6-32mm) double ended	2	Set
21	Ring Spanner Set (6 to 32mm)	2	Set
22	Adjustable Wrench 10"	1	No.
23	Combination Plier 8"	16	No.

24	Flat Chisel 6"	7	No.
25	Tap Set (6mm to 12 mm)	1	Set Each
26	Tap Handle (1/2")	1	No.
27	Flexible Measuring steel Tape 5 mtr	23	No.
28	Parallel Shank Drill bit (3mm to 12mm)	2	No. Each
29	Taper Shank Drill Bit (13mm to 25 mm)	2	No. Each
30	Diamond Dresser (1mm)	2	No.
31	Screw Driver 10"	17	No.
32	Boring Bar 6"	5	No.
33	Left hand side Carbide Tip Tool (1")	2	No.
34	Right hand side Carbide Tip Tool (1")	2	No.
35	HSS.Tool Bits (3/8")	10	No.
36	HSS. Tool Bits 1/2"	10	No.
37	Centre Drill 2mm	2	No.
38	Centre Drill 5mm	2	No.
39	Nylon Hammer	3	No.
40	Hand Hacksaw Frame 12"	35	No.
41	Oil Cane	3	No.
42	Allen Key Set (1mm to 12mm)	1	Set
43	<b>High Speed Precision Centre Lathe Machine</b> Specifications :- Height of Centre 220mm Swing Over Bed 500mm Swing Over cross slide 270mm Distance Between Centers 1000mm Spindle Speed Range 16 from 40-2040 forward 7 from 16-1430 reverse Feed Range (Longitudinal) 60 from 0.04 to 2.24mm/rev. Feed Range Cross 60 from 0.02 to 1.12mm /rev.	3	No.

44	<p><b>Knee Type Milling Machine</b></p> <p>Specifications:-  Table :-  Overall size v x w 1175 x 230mm  Long movement:-  Automatic 560mm  Manual 590mm  Traverse Movement:-  Automatic 250mm  Manual 270mm  Vertical Movement:-  Manual 340mm  Spindle:- Speed Range 45 to 2000 rpm.  Nos/Progression 12/1.4  Feed:- No. of Feed 18</p>	1	No.
45	<p><b>Surface Grinding Machine</b></p> <p>Capacity:-  Working Surface of the table 500 x 250mm  Max. Longitudinal travel 550mm  Max. cross traverse 280mm  Magnetic chuck 500 x 250mm  Max. Spindle centre from Table Surface 525mm  Speed &amp; Feed:- Max. Table Speed 5-28M/min.  Power cross traverse 1200mm/min.  Auto cross feed 0.5 to 6.0mm  Vertical feed graduation 0.002mm  Cross feed graduation 0.01mm  Grinding Head:- Speed of grinding spindle 2800rpm.  Size of grinding wheel (Dia. x width x bore) 200 x 20 x 50.8mm  Hydraulic System:- Working pressure 8kg/cm<sup>2</sup>  Power pack solenoid operated hydraulic power pack with facility to move soft table reversal  Power of Hydraulic:- Motor 2HP</p>	1	No.

46	<b>Pillar type Drilling machine</b> Drilling Capacity:- 25 mm Distance between spindle and upright 355mm No. of spindle speed 12 (32-1400 rpm) No. of power feed 9 (0.11-1.73 mm/rev.) Power of main motor 5hp Power of elevating motor 1hp Table :- Working surface 500x630 mm, Maximum Distance between spindle and table 750 mm	1	No.
47	<b>Cut off Machine (Portable Disc type)</b> Power input 220/230V-50/60Hz-2400W Load Speed 3800 rpm/min Cutting disc Dia 355mm	2	No.
48	<b>AC to AC Air cooled Arc welding M/C</b> with std. accessories ,(Welding cables, earth cable, earth clamp, soldering type terminal end, electrode holder.) Supply voltage 415 V, 2phase 50Hz rating at 60%, duty cycle32.8, open circuit voltage 80, operating arc voltage 23-40, welding current range 80-500AMP, max. intermittent welding current @ 35% , duty cycle 500.max, continues welding current @ 60% duty cycle 375	1	No.
49	<b>AC to DC Arc welding M/C</b> Air cooled 3 Phase with standard Accessories 3Phase 415v Input voltage Range 350-450v 50 Hz , max. primary current A-25, current 100% , duty A-12, max. primary power 17.5kva Secondary Open circuit voltage 0.75 Arc voltage range 20-34 Welding current range amps 5 to 350 Max. Electrode Dia 5mm	1	No.

50	<b>Gas welding set</b> complete comprising: Oxygen cylinder 01, DA gas cylinder 01 Oxygen & Acetylene regulator ISI mark 01 each, Gas welding torch 01, Cutting torch 01, Hose pipe 10 mtr each	1	Set
51	<b>Welding Table size 5' x 2' x 3'</b> MS square pipe frame 5mm thick metal top	1	No.
52	<b>Gas welding table 3' x 2' x 3'</b> MS square pipe frame 3mm thick metal top	1	No.
53	Anvil with stand 50kg	3	No.
54	Welding screen helmet type with glass	6	No.
55	Hand type screen with glass	10	No.
56	Gas welding goggles	15	No.
57	Safety goggles	15	No.
58	Flat File bastard 10"	25	No.
59	Flat File smooth 10"	25	No.
60	Bench vice 6"	30	No.
61	<b>Working Table 5' x 4' x 3'</b> with drawer both sides wooden with steel frame (green paint) wooden top size 60" x 48" x 2" steel frame size 48"x36"x34" (square pipe 2")	12	No.
62	Hand gloves	15	1pair
63	Chipping Hammer	10	No.

64	Letter punch A to Z	1	Set
65	Number Punch 1 to 9	1	Set
66	Hand Operated Sheet Shearing M/C 14"	1	No.
67	Sheet Cutting M/C Foot Operated 48" Blade	1	No.
68	Mech. Operated Press 5 T. Capacity with die set of washer	1	No.
69	Sheet Bending M/C Hand Operated 48" Blade	1	No.
70	Hand Press Pillar Type with die set of round punch	1	No.
71	Sheet Bending Roller	1	No.
72	Scriber 6"	20	No.
73	Steel Rule 24"	2	No.
74	Snips Bend 12"	5	No.
75	Snips Straight 12"	10	No.
76	Snips Straight 10"	5	No.
77	Mallet Wooden 2" dia.	15	No.
78	Standard Wire Gauge	5	No.

79	Engg. Right Angle 12"	2	No.
80	Hollow Punch 6 mm	2	No.
81	Hollow Punch 10 mm	2	No.
82	Hollow Punch 16 mm	2	No.
83	Portable Electric Hand Drill M/C 6 mm with complete kit	3	No.
84	Hand Rivet Machine	2	No.
85	Wedge Shaped Plastic Mallet 2"	5	No.
86	Bench Vice 4"	5	No.
87	Rubber Hammer 2" Dia.	5	No.
88	Pipe Vice 4"	1	No.
89	Railway Line Edge Piece 2'	3	No.
90	Nylon Hammer	2	No.
91	Hatchet Stake	2	No.
92	Bick Iron Stake	2	No.
93	Half Moon Stake	2	No.

94	Creasing Iron Stake	2	No.
95	Bench Mandrel Complete With Strap Clamps	4	No.
96	G.D. Drill Stand	1	No.
97	Riveting Hammer 250 gm.	10	No.
98	Hand Riveter Lazy Tong Type	2	No.
99	Triangular File Bastard 8"	10	No.
100	Dividers 6"	5	No.
101	Half Round File Bastard 6"	10	No.
102	Knife Edge File Bastard 6"	10	No.
103	Vee Block	1	Set
104	Vernier Height Gauge 0-200mm (mitutoyo)	1	No.
105	Job Display Board (Wooden) 4'x 2 ½ '	8	No.
106	Marking Table 400X630mm with stand	1	No.
107	Surface plate 18"x18"(Graphite) with stand	2	No.
108	Rotary Needle File Set standard	1	No.



109	Plastic Handle (File)	170	No.
110	Flat File Smooth 6"	10	No.
111	Bench Drill Machine Capacity 12mm with all standard accessories including vice, sleeves etc	1	No.
112	Bevel Square 6"	15	No.
113	Pedestal Grinder with wheel size 250x25x31.75 mm, power motor 1HP 415 v, AC three phase, 2500 RPM minimum	2	No.
114	Combination Set 12"	1	Set
115	Hammer Ball Peen 200gm	40	No.
116	Hammer Cross Peen 200gm	10	No.
117	Angle Plate 200*150*125	1	No.
118	Odd leg Caliper 6"Spring Type	10	No.
119	Digital caliper 150mm	1	No.
120	Flat Cold Chisel 8"	15	No.
121	Knife edge file Smooth 6"	10	No.
122	Square File Bastard 6"	10	No.

123	Round file smooth 10"	10	No.
124	Triangular file Smooth 6"	10	No.
125	<b>Induction Heating Furnance:</b> Suitable for heating steel rod 20mm,16mm dia.& length up to200mm,with suitable fixtures. Power rating 10kw input supply415v 50Hz Output Voltage 800v at 10kHz, Water cooled with complete assembly	1	No.
126	Open Hearth Furnace: Complete with Blower & chimney	1	No.
127	Anvil with stand 100kg.	3	No.
128	Swage Block 50kg wt	2	No.
129	Leg Vice 4" Heavy Duty	2	No.
130	<b>Hammers:</b> 1.Double Flat end hammer 2kg	10	No.
	2.Cross Peen hammers 1kg	10	No.
	3. Double Flat end Sledge hammers 5kg	3	No.
131	<b>Tongs:-</b> 1.Flat Mouth Tongs	10	No.
	2.Round Mouth Tongs	20	No.
	3.Square Mouth Tongs	10	No.
	4.Pickup Tongs	10	No.

132	<b>Flaters:-</b> 25mm	15	No.
	50mm	15	No.
	75mm	5	No.
133	Fuller Set:-Top Fuller & Bottom Fuller 12mm	5	No.
134	Swage Set:- Top & Bottom 12mm	5	No.
135	Spoke Shave plane 2"	1	No.
136	Marking gauge 2"	10	No.
137	Plough plane 2"	1	No.
138	Rip saw 18"	12	No.
139	Key hole saw 8"	12	No.
140	Hand saw teeth setting (saw set plier) 6"	1	No.
141	Mortise Chisel (with handle): 8mm	10	No.
	10mm	10	No.
	12mm	10	No.
	16mm	10	No.
142	Edge ½"	5	No.
143	Firmer Chisel ½"	12	No.
	3/8"	12	No.
	1"	12	No.
	1-1/2"	12	No.
144	Flat file rasp cut 10"	12	No.
145	Oil stone Standard size	5	No.

146	Jack plane steel body 14"x 2"	12	No.
147	Smoothing plane 9"x 2"	12	No.
148	Carpentry vice 6"	12	No.
149	Rabbet plane standard size	1	No.
150	Molding plane standard size	1	No.
151	Tenon saw 12"	12	No.
152	Rasp cut h/r file 10"	12	No.
153	Triangular file 6" (Takora)	20	No.
154	Electric planner (Eastman)	1	No.
155	Screw driver 12"	3	No.
156	Circular saw machine : Blade dia. 200mm Low speed 4700rpm	1	No.
157	Carpentry working table 60"x36"x27"	3	No.
158	<b>Jigsaw:</b> Cutting depth 20mm, Power input 720 w, 500-2800rpm	1	No.
159	<b>Electric planner</b> : 400w, Planning width 82mm	1	No.
160	<b>Multipurpose machine</b> Top table L x W 1600 x 260mm Side patam table L x W 605 x 212mm Speed of 4 cutting bade 4000rpm. Electric motor 2hp 1440rpm. Bandsaw blade length 3900mm	1	No.
161	Firmer Chisel ½"	15	Pc
162	Flat File Smooth 8"	15	Pc
163	Screw Driver 6"	15	Pc

164	Wire Stripper and Cutter	5	Pc
165	Hand drill M/c ¼"	5	Pc
166	Line Tester	15	Pc
167	Hand saw small	15	Pc
168	Multimeter (Pointer type)	5	Pc
169	Volt Meter (0-300v)	2	Pc
170	Amp. Meter (0-30Amp.)	2	Pc
171	Soldering iron 65Watt	2	Pc
172	Soldering iron 35Watt	10	Pc
173	Pocker	10	Pc
174	Hand Operated Coil Winding M/C	2	Pc
175	Single Phase Energy Meter 5Amp to 10Amp	2	Pc
176	Wiring Board 4'x3', roof 2.5'x4'	2	Pc
177	Crow Bar	2	No.
178	Plate form weighting digital m/c 100kg	1	No.
179	Hand Bellow	2	No.
180	Wheel Barrow	1	No.
181	Oil fired tilting furnace with blower	1	No.

182	Tool box with 29 tools	10	Set
183	Sand riddle electrical operated m/c	1	No.
184	Chain pulley block 2ton capacity	1	No.
185	Try pole 3 pipe 20' each	1	Set
186	Ladle 15 pound	2	No.
187	Ladle 20 pound	1	No.
188	Sand Muller capacity 50kg	1	No.
189	Cupola furnace with blower	1	No.
190	C- Clamp 4"	2	No.
191	C- Clamp 6"	2	No.
192	Round file bastard 12'	5	No.
193	Shovel	4	No.
194	Bench Moulding Table 5'x2'x3'	1	No.
195	Khurpa	2	No.
196	Spade (Kahi)	2	No.
197	Electric blower	1	No.
198	Standard sand sleeve 12"	6	No.
199	Moulding box with pins	10	Set

200	Pit furnace 18"x 18"	1	No.
201	Crucible Handle 200kg	1	No.
202	Lifting Tong	1	No.
203	Try Square 6" With Graduation	10	No.
204	Bench Grinder, 1 HP 230V, 2800 RPM	1	No.
205	Parallel blocks 6"x2"x1/2 "	1	Set
206	Parallel Block 8"x2"x1/2"	1	Set
207	Bench : wooden top size 48"x15"x1 1/2" fitted on square pipe 2" steel frame size 42"x12"x 16"	24	No.
208	Stool : height 27", Four legged, made of square pipe 2", with Round 12" dia wooden top	80	No.

**Note: The above items are required for PIT Rajpura only.**