

**LIST OF TOOLS AND EQUIPMENTS FOR "COMPUTER AIDED EMBROIDERY  
NEEDLE WORKER "FOR A BATCH OF 20 TRAINEES**

<b>Sl</b>	<b>Description &amp; Specification</b>	<b>Nos.</b>
1	a) Model No. BDMN 12-12 Needle Multicolor OR b) The Super Economy Model - BDSN	2 Nos.
	Power : 230 V/50 HZ Single Phase	
	Total Volume : H - 1415 mm B-690 mm L-925 mm	
	Machine floor area : 925 mm X 690 mm	
	Processor : Intel Micro Controller	
	Motors : X - Y - Pulse motor, Z axis DC servo	
	Cartridge Size : 1 MB i.e. 2,50,000 stitches	
	Stitch Length : 0.1 - 12.1 mm	
	Speed : 800 - 600 Stiches per minute*	
	Total Weight : 180 kg.	
	Frame Area Maximum : 10" X 21" / 254 mm X 530 mm	
2	Pinking Scissors	2 nos.
3	Instructor's table	2 Nos.
4	Steel Almirahs	2 Nos.
5	Chairs with arms with adjustable back & seat	4 Nos.
6	L . Square	2 Nos.
7	Geometrical Instrument box	2 Nos.
8	Sets square plastic full size	2 Nos.
9	Hangers	12 Nos.
10	Audio Visual equipment (for Theory class room): Over head projector with Trolley & screen TV /VCP with trolley	2 Nos.
11	Slide projector	2 Nos.

**LIST OF TOOLS & EQUIPMENTS FOR KG ITC  
WELDER FOR 2 UNITS**

1	Apron leather	32 nos.
2	Caliper outside 15 cm	32 nos.
3	Centre punch 9mm * 127 mm	32 nos.
3	Centre punch 9mm * 125 mm	32 nos.
4	Chipping spring hammer with spring type handle	32 nos.
5	Chisel cold flat 19 mm	32 nos.
6	Dividers 20 cm	32 nos.
7	Gloves pair leather	32 nos.
8	Goggles pair welder	32 nos.
9	Hammer scaling 0.25 kg with handle	32 nos.
10	Rule 60 cm two fold brass tipped to read inches and mm	32 nos.
11	Safety boots for welder	32 nos.
12	Safety goggles for welder	32 nos.
13	Screen welding hand	32 nos.
14	Screen welding helmet type	32 nos.
15	Scriber 15 cm	32 nos.
16	Spark lighter	32 nos.
17	Square blade 15 cm	32 nos.
18	Tongs holding 30 cm	32 nos.
19	Wire brush 15 cm * 3.7 cm	32 nos.
20	Brass Rule 30 cm of nickel steel rule 30 cm	4 nos.
21	Hammer ball pein 1 kg with handle	4 nos.
22	Chisel cold cross 9 mm	8 nos.
23	Screw driver 25 cm blade	1 no.
23	Screw driver 20 cm blade	1 no.
24	leg vice on stand 150 mm	1 no.
25	Hammering block 5 cm thick 60 sq	4 nos.
26	Magnifying glass 15 cm	2 nos.
27	Weld measuring guage fillet and butt	6 nos.
28	File half round bastard 30 cm	6 nos.
29	Tinman's square 60 cm X 30 cm	1 no.
30	Welding torches with 10 nozzles 2 to 45 low pressure with	6 nos.
31	Metal Powder Spray Equipment for metalizing & hard facing kit " Oxy - Acetelene Manual process"	1 no.
32	Earth clamps	12 nos.
33	Pipe cutter (cap 50 mm dia)	1 no.
34	Cutting torch Oxy Acetylene with cutting nozzle 3/64	2 nos.
35	Heavy duty cutting and squouging blow pipe with cutting and squouging nozzle	1 no.
36	Electrode holder 400 amps	6 nos.
37	Welding rubber hose, Oxygen and Acetylend 8 mm	65 Mtr.
38	Rubber hose clips	50 nos.
39	Spindle key (for oppeining cylinder valve)	8 nos.
40	Pressure regulator Oxygen double stage	8 nos.

41	pressure regulator Acetylene regulator	8 nos.
42	Tip cleaner	8 nos.
43	Glasses coloured 108 mm X 82mm X 3 mm DIN 11A 13A	16 nos
44	Outfit Spanner	8 nos.
45	Rubber hose pipe black & red 5 mm	30 nos.
46	Leather Sleeves	12 nos.
47	Transformer Welding continuous welding current with all accessories 300 amp	2 nos.
48	Transformer Welding continuous welding current with all accessories 400 amp	2 nos.
49	Arc welding set rectifier type 300-450 amps continuous	1 no.
50	CO <sub>2</sub> welding machine complete 400 amps	1 no.
51	TIG welding set complete 300 amps AC/DC	1 no.
52	Welding cables to carry 350 amps with flexible rubber.	45 nos.
53	Lugs for cable	24 nos.
54	Oxygen cutting machine ( line and circle)	1 no.
55	Gas welding table 122cm x 92 cm + 60cm fire bricks on stand with positioner	6 nos.
56	Arc welding table all metal with positioner 122 cm x 92 cm x 60 cm	6 nos.
57	Trolley for cylinder (H.P. Unit)	2 nos.
58	Bench shear hand capacity up to 5 mm	1 no.
59	D.E. grinder 30 cm wheel pedestal type	1 no.
60	Vice bench 10 cm - Lion Brand	6 nos.
61	Power Hackasaw	1 no.
62	Electrode Drying Oven thermostatically controlled temperature 0 - 250 C 10 Kg /cap	1 no.
63	AG 7 Grinder	
64	Brazz weld equipment Eraser which can be used with existing welding Transformer	1 no.
65	Fire extinguisher ( foam type & CO <sub>2</sub> type)	2 nos.
66	First Aid Box	1 no.
67	Welding Helmets	6 nos.
68	Fire buckets with stand	3 nos.

**TRADE : PLUMBER****List of tools and equipment for a batch of or unit of 16 trainees**

SI	Items	
	<b>TRAINEES TOOL KIT</b>	
1	Rule steel 300 mm both in inch and mm	44 nos.
2	Rule wooden 4 fold 600 mm	44 nos.
3	Hacksaw frame adjustable for 250 to 300 mm	44 nos.
4	Scriber 200 mm	44 nos.
5	Centre punch 100 mm	44 nos.
6	Chisel cold flat 20 mm 250 mm	44 nos.
7	Hammer ball pein 800 gms	44 nos.
8	Hammer ball pein 300 gms	44 nos.
9	File flat rough 300 mm	44 nos.
10	Level spirit wooden 300 mm	44 nos.
11	Plumb bob 50 gms	44 nos.
12	Trowel c 125 IS:6013	44 nos.
13	Stillson wrench 200 and 350 mm	44 nos.
14	Screw driver 250 mm	44 nos.
15	Wooden mallet small IS:2022	44 nos.
16	Cutting Pliers 200 IS:3650	44 nos.
17	Steel Tape	44 nos.
18	Combination set 200 mm	1 No.
19	Surface plate 400 X400 mm grade 1	1 No.
20	Scribing block universal 300 mm	2 Nos.
21	Hand vice jaw 50 mm	2 Nos.
22	Chisel cold flat 20 mm x 300 mm	2 Nos.
23	Chisel cross cut 6 x 150 mm IS:402	2 Nos.
24	Chisel cross cut 3 x 150 mm IS:402	2 Nos.
25	Chisel diamond point 6 x 150 mm	2 Nos.
26	Tap and die set to cut BSP threads	1 set each
27	Pipe bender (Hydraulic type)	1 no.
28	Chase wedge 50 mm	3 Nos.
29	Dresser lead 350 x 50 mm	4 Nos.
30	Stick setting in 350 x 50 mm	4 nos.
31	Saw plumber 300 mm	4 Nos.
32	Spanner Monkey up to 50mm	2 Nos.
33	Monkey plier (Gas plier)	4 Nos.
34	Cutter, pipe wheel type 6 mm to 25 mm	1 No.
35	Pipe jointer , lead and universal	1 No.
36	Soldering iron, copper fit , fire heated, hatched, straight 500 gms	4 Nos.
37	Tennon saw	2 Nos.
38	Mortice Chisel	2 sets
39	Firmer Chisel	2 sets
40	Jack plane	2 sets

41	Pliers combination 200 mm	1 no.
42	Blow lamp 500 milliliter	2 pairs
43	Pipe opener	1 No.
44	Washer cutter	1 No.
45	Bend bold	1 No.
46	Sheet lead knife	2 Nos.
47	Chipping knife	2 nos.
48	Mirror 100 x 150 mm	2 each
49	Splash stick	2 Nos.
50	Soil pot with brush	2 Nos.
51	Pot hook	2 Nos.
52	Turn pin	2 Nos.
53	Branch gimlets	1 No.
54	Bending spring	1 No.
55	Long dummy	1 No.
56	Short dummy	1 No.
57	Plumber laddle	2 sets
58	Joining cramp	2 Nos.
59	Plumbers metal melting pot 10 kg	1 set
60	Pipe stocks and dies complete with stocks brushing, bushing holders taps and tap wrencher sizes covered to suit pipes of bore dia 6,8,10,20,25,32,40 and 50 mm	2 Nos.
61	Pipe vice to grip pipes up to 77 mm IS:2587	2 Nos.
62	Tools caulking set of 2	2 Nos.
63	Stilton pattern pipe wrenches 450 mm to take pipe up to 52 mm dia IS:4003	2 Nos.
64	Stilton pattern pipe wrenches 300 mm to take pipe up to 20 mm to 32 mm	1 No.
65	Chain pipe wrench 90 mm 650 mm IS: 4223	3 sets
66	Adjustable spanner A 375 IS:6149	3 Nos.
67	Anvil 50 or 63 kg IS 510	2 sets
68	Pipe bender manually operated	2 sets
69	Vice leg 75 mm jaw on stand IS:2588	2 sets
70	Portable Forges 450 mm with hand blower.	1 No.
71	Flat smithy tong	1 No.
72	Working bench 2400 x 1200 x750 mm with 4 vices 125 mm jaws	1 No.
73	Bath tub small size	1 No.
74	Stop tap water 20 mm IS: 781	1 set
75	Wash basin (16"x 14"x10") equivalent metric	1 No.
76	Water heater 22 liters	2 Nos.
77	Water closet (European type with down over cistern)	2 Nos.
78	Water closet Indian type complete with over head cistern	1 No.
79	Urinal wall type complete with automatic system	4 Nos.
80	Water meter	2 Nos.

81	Steel lockers with drawers	1 No.
82	Metal rack 1800 x 1500 x 450 mm	1 No.
83	Desk	1 set
84	Stool	1 set
85	Black board with easel	2 Nos.
86	Fire extinguisher	2 Nos.
87	Fire buckets with sand	1 No.
88	Steel almirah	1 No.
89	Ratchet brack with post and clamp flat drill 15 to 50mm by 0.2 mm	1 No.
90	PVC welding plant	1 No.
91	Electric pump 1 HP	1 No.
92	D.E. Pedestal grinder with 2 wheels 175 rough and smooth	1 No.
93	Hydraulic pressure machine for testing leakage in GI pipe fitting etc.	1 No.
94	Sight rail and banning rod	1 set
95	Rachet pipe die 15 mm -32 mm	1 No.
96	Bench drilling machine with chuck and key up to 15 mm cap.	1 No.
97	Dormat, pickle, spade, girmale	1 each
98	Pipe bendor (Hydraulic type)	1 No.

**TRADE : FITTER****LIST OF TOOLS AND EQUIPMENT FOR THE FIRST 52-WEEK (1 YEAR)****For a batch of 16 trainees**

<b>Sl.</b>	<b>Name of Tools &amp; equipment</b>	
1	Rule steel 15 cm with metric graduations.	44 nos.
2	Square try 10 cm blade	44 nos.
3	Caliper outside 15 cm spring	44 nos.
4	Caliper inside 15 cm spring	44 nos.
5	Caliper 15 cm hermaphrodite	44 nos.
6	Divider 15 cm spring	44 nos.
7	Scriber 15 cm	44 nos.
8	Punch center 10 cm	44 nos.
9	Screw driver 15 cm	44 nos.
10	Chisel cold 10	44 nos.
11	Hammer ball pein 0.45 kg with handle	44 nos.
12	Hammer ball pein 0.22 kg with handle	44 nos.
13	File flat 25 cm second cut	44 nos.
14	File flat 25 cm smooth	44 nos.
15	File half round second cut 15 cm	44 nos.
16	Hacksaw frame adjustable 20 - 30 cm	44 nos.
17	Safety goggles	44 nos.
18	Dot slot punch	44 nos.

**Tools - Instruments & General Shop Outfit per Unit**

19	Rule steel 30 cm to read metric	4
20	Rule steel 60 cm	4
21	Straight edge 45 cm steel	2
22	Plate surface 45 cm X 45 CM	2
23	Marketing table 91x91x122 cm	1
24	Universal scribing block 22 cm	2
25	Block - Vee Pair 7 cm and 15 cm with claims	2
26	Square adjustable 15 cm blade	2
27	Angle plate 10 x 20 cm	2
31	Punch hollow 6 mm to 19 set of 5	2
32	Punch round 3 mm x 4 mm set of 2	2
33	Portable hand drill ( Electric) 0 to 6 mm	2
34	Drill brace hand to 12 mm	2
36	Drill twist S/S 8 mm to 15 mm by 1/2 mm	1 set
37	Brace ratchet with pillar	1
38	Taps and dies complete set in box B.A.	1
39	Taps and dies complete set in box B.S.F.	1
40	Taps and dies complete set in box whitworth	1

41	Taps,dies complete set in box American	1
42	Taps and dies complete set in box (Metric)	1
43	File warding 15 cm smooth	4
44	File knife edge 15 cm smooth	4
45	File cuts saw 15 cm smooth	4
46	File feather edge 15 cm smooth	4
47	File round 20 cm second cut	8
48	File square 15 cm second cut	4
49	File square 25 cm second cut	4
50	Feeler gauge 10 blades	1 set
51	File triangular 20cm second cut	8
52	File flat 30 cm second cut	8
53	File half round 25 cm second cut	8
54	File half round 25 cm bastard	8
55	File round 30 cm bastard	4
56	File hand 15 cm second cut	8
57	Card file	8
58	Stone carborandum 15 cm x 5 cm x 5 cm x 4 cm	2
59	Can oil 0.25 liters	2
60	Iron soldering 350 gm	2
61	Lamp blow 0.55 liters	2
62	Interchangeable ratchet socket with a 12 mm driver -socket range:4 mm set of 8	1 set
63	"Apollo" box spanner set in mm 3x4, 6x7, 9x11, 12x14, 15x19, 22x25, set of 6	1 set
64	Glass magnifying 7 cm	2
65	Clamp tool maker 5 cm and 7.5 cm set of 2	2
66	Clamp "C" 5 cm	2
67	Clamp "C" 10cm	2
68	Reamer adjustable max. 9 mm 12m, 19 mm - set of 3	1 set
69	Reamer taper 4 mm to 9 mm set of 4	1
70	Reamer parallel 16 mm to 12 mm set of 5	1
71	Scraper flat 15 cm	8
72	Scraper 3 corner 15 cm	8
73	Scraper half round 15 cm	8
74	Chisel cold 9 mm cross cut 9 mm diamod	8 each
75	Chisel cold 19 mm flat	8
76	Chisel cold 9 mm round nose	8
77	Extractor stud EZY - out	2
78	Set combination 30 cm	2
79	Micrometer 0-2.5 cm outside	3
80	Micrometer 25-50 mm outside	3



81	Micrometer 50-25 mm outside	4
82	Micrometer 50-75 mm outside	1
83	Micrometer inside 25 mm to 50 mm with extension rods	1
84	Vernier caliper 20 cm.	1
85	Vernier height guage 30 cm	1
86	Vernier level protractor	1
87	Screw pitch gauge	1
88	Wire gauge, metric standard	1
89	Pipe vice No.4	2
90	Adjustable pipe die 0-205 cm cap	1
91	Machine vice 10 cm	1
92	Machine vice 15 cm	1
93	Vice leg 10-cm jaw	2
94	Bench working 240 cm x120cm x60 cm	4
95	Almirah ;180 x 90 x 30 cm.	2
96	Lockers with 8 drawers (standard size)	2
97	Metal rack 182 cm x 182cm x 4.5 cm	1
98	Desk	1
99	Stool	1
100	Black board with easel	1
101	Fire extinguisher (For 4 Units)	2
102	Fire buckets	2
103	Machine vice	2
104	Wing compass 25.4 cm or 30 cm	2
105	Hand hammer 1 kg. with handle	2
	<b><u>Tools for Allied Trade- Blacksmithy &amp; Sheet Metal work</u></b>	
106	Hammer smith 2 kg, with handle	2
107	Tongs round	2
108	Tong flat	2
109	Smith's square 45 cm x 30 cm	1
110	Cold set rodde	2
111	Hot set rodde	1
112	Swages top & Bottom 12 mm/19mm/25 mm (pair)	1Each
113	Swage block 35 cm x 35x 12 cm	1
114	Flatters (rodde) 55 mm squares	2
115	Fuller top & bottom 6 mm, 9 mm (pair)	2
116	Anvil 50 kg.	2
117	Anvil stand	2
118	Shovel	2
119	Trammer	1
120	Racks	2

121	quenching tank	1 ( to be made in the institute)
122	Pocker	2
123	Handle	2
124	Leather apron	2
125	Prick punch	2
126	Mallet	2
127	Snips straight 25 cm	2
128	Setting hammer with handle	2
129	Planishing hammer	2
130	Snip bent 25 cm	2
131	Stake hatchet	2
132	Stake grooving	2
133	Guage imperial sheet	1
	<b><u>General Machinery Installtion</u></b>	
134	Drilling machine pillar sensitive 0-20 mm cap. With swivel talbe motorised with chuck & key	1
135	Drilling machine bench sensitive 0-12 mm cap. Motorised with chuck & key	2
136	Forge portable hand blower 38 cm to 45 cm	1
137	Grinding machine (General purpose)D.E. pedestal with 2 cm dia wheels rough and smooth with twist drill grinding attachment	1

The specifications of the items in the above list have been given in Metric Units. The items which are avialable in the market nearest of the specification as mentioned above, if not available as prescribed should be procured measuring instruments such as steel rule which are graduated both english and matric unit may be procured, if available

## LIST OF TOOLS FOR THE IIND YEAR OF FITTER TRADE

1	Gauge slip as Johnson metric set	1
2	Carbide wear block 1 mm-2mm	2 each
3	Gauge snap go and no go 25 to 50 mm by 5 mm	1 set
4	Gauge plug single 3 ended 5 to 55 mm by 1 mm	1 set
5	Gauge telescopic	1 set
6	Dial test indicator 0.01 mm on stand	1
7	Sine bar 125 mm	1
8	Sine bar 250 mm	1
9	Lathe tools HSS tipped set	2
10	Lathe tools bit 6mm x 75mm	12
11	Lathe tools bit 7mm x 75mm	12
12	Lathe tools bit 9mm x 85mm	12
13	Armstrong type tools bit holder R.H.	2
14	Armstrong type tools bit holder L.H.	2
15	Armstrong type tools bit holder straight	2
16	Stilson wrenches 20 cm	2
17	Spanner monkey up to 5 cm	2
18	Pipe cutter 6 mm to 50 mm wheel type	1
19	Pipe face to grip pipe up to 50 mm	2
20	Pipe stock and dies complet with stocks, bushing, bushing holders, tap, tap wrenches size covered 19 mm 25mm 32mm 6mm 9mm 12mm 19mm 25mm 32mm 38mm 50mm	1 set
21	Pipe bender spool type with stand manually operated	1
22	Adjustable spanner 38 cm long	1
23	Adjustable pipe chain tongs 22 cm long to take pipes from 3 cm to 63 cm	1
24	Dial Vernier Calliper 0- 130 mm LCO 0.05 mm (Universal type)	1
25	Screw thread micrometer with interchangeable 0.4 - 1.75 mm pitch anvils for chechking metric threads 60	1
26	Depth micrometer 0-100 mm 0.01 mm	1
27	Vernier caliper with thumb block 0-130 mm LCO 0.2mm	1
28	Comperator stand with dial indicator	1
29	Engineers try square (knife & wedge)	1
30	Surface roughness comparison plates ruberts	1 set