

**SYLLABUS FOR THE TRADE OF
CARPENTER
UNDER
CRAFTSMAN TRAINING SCHEME
PERIOD OF TRAINING – 1 YEAR**

Week no.	Trade practical	Trade theory	workshop calculation & sc.	Engineering drawing
1	<p>Familiarization with the institute, workshop, sections and the general places, wood working sections and wood working machine ship.</p> <p>Introduction to the safety rules in the shop floor and the fire fighting equipment</p> <p>Show different exercises /jobs done by the trainees in the previous year batches etc.</p> <p>Show different audio – visual and aids, library, show room etc.</p>	<p>Importance of the trade in the industrial development of the country.</p> <p>Subjects to be taught and the student of the proficiency to be attended.</p> <p>Introduction to the general safety causes of the accident and the remedies.</p> <p>Give some instruction related with the duties of the trainees, discipline recreational, medical facilities and other extra curricular activities of the institute.</p> <p>(All necessary guidance to be provided to the new comers to be come familiar with the working of the industrial training institute system including stores procedures.)</p>		

2 & 3	<p>Identification of the hand tools. Demonstration and the using of the measuring and making tools.</p> <p>Sawing practice: - using of the different types of the saws.</p> <p>Ripping, cross cutting, curve cutting, oblique sawing etc.</p> <p>Use of the saw horse, bench hook vice, bench stop etc. identification of the timber, showing defects of the knots, shakes, grains etc.</p>	<p>Safety precaution of the carpentry hand tools. Workshop discipline and safety first aid etc. introduction to the trade</p> <p>Introduction to carpentry hand tools, their classification, names and the users.</p> <p>Measuring and marking and the testing of the tools, types sizes, users, etc.</p> <p>Saw and the panes: description types, sizes, setting, sharpening users, etc.</p>	<p>Properties and the users of C.I. and W.I.</p> <p>Fundamental arithmetical operation addition, subtraction, multiplication and the division of the whole numbers.</p>	<p>Importance of the Engineering drawing and its knowledge free hand sketches of straight, oblique and perpendicular lines and plain figures like square, rectangle square, circle, polygons and the triangles etc.</p> <p>Identification of the simple geometrical solids from the given models/ teaching aids –free hand sketches for the simple solids like cube, cone pyramid, rectangle block etc.</p>
4.	<p>Planning practice: Demonstration and the users of the plans</p> <p>Setting of the plane, holding, planning technique.</p> <p>Planning face side face edge mark use of marking gauge etc. testing of the of the accuracy flatness twist ness</p>	<p>Introduction to timber growth of the tree, cross-section of a trunk parts and the formation of and the functions.</p> <p>Identification of the timber.</p>		

	<p>of the surface use. Use of straight edge, bench stop, try square, winding strips etc. try square, winding strips etc. cross planning, edge planning etc.</p> <p>Grinding and sharpening of the plane blades.</p>			
	<p>Chiseling practice</p> <p>Demonstration and the use of the different types of the chisels. Chiseling along the grain across the grain of the vertical, horizontal etc.</p> <p>Grinding sharpening and the honing of the chisel.</p>	<p>Hand tools: continued and the different types of the chisels description tubes sizes, users, grinding sharpening honing etc.</p> <p>Workshop appliances: work bench, bench vice, bench hook, bench stop shooting board, mite board etc. types sizes, users etc.</p>	<p>Properties and the users of the plain carbon steel and the alloy.</p>	<p>Importance of the good printing of the letters and the numbers on drawing free hand practice of lettering and the numbering style per in 696/ 1972.</p>
5 & 6	<p>joint practice:-</p> <p>demonstration and making framing joints :-</p> <p>Halving joints trenching and house joints.</p> <p>Mortise and tenon joints plain, haunched, stob tenon, fare face tenon, brindle joints etc. sharpening and setting of different types of raw</p>	<p>Classification and grinding of timbers per ISI defects and diseases in the timber, caused remedies, hypes of the grains.</p> <p>Joiners: Classification of joint groups names (framing, broadening and the lighting)</p> <p>Frame joints:-</p> <p>Halving, trenching and the housing of the joints, description, types of the uses. Mortise of the tenon</p>	<p>Fraction and the decimals conversion fraction to the decimal vice versa.</p> <p>Properties and the uses of the copper, zinc, lead, tin and aluminum</p>	<p>Standard line conversion and their meaning and their scope of application on eng. Drawing as per is 669/1972 ST symbols for simple eng, elements and materials used on drawing. As per I.S.I (hand out to be issued for.)</p> <p>Free hand</p>

		<p>joints different types of the uses.</p> <p>Hand tools: Sharpening and the setting of the different types of the saws. Saw set, saw sharpening files etc.</p>		<p>sketches. Of hand tools and measuring tools, related to the trades e.g. hammer. File, chisel drill, hack-saw tongs snips, solder-Iron mallets, Anvil, punch, harp, blow pipe, electrode holder, scale, caliper, try square, Bench vice etc. from the supplied sketches or samples.</p>
7	<p>Demonstration and make Dove—tail joints:</p>	<p>Dovetail joints, description, types pin size, uses etc. Timber: stacking (vertical and horizontal)</p> <p>Moisture content in timber and its effect on timber moisture meter and oven method</p> <p>Characteristics of wood Physical and mechanical properties of wood, qualities of good timber.</p>	<p>Simplification, application of fundamental arithmetical operation to shop problems.</p>	<p>Do</p>
8 & 9	<p>Broadening joints:</p> <p>Demonstration and make different types of broadening joints simple butt, related butt pocket screw, glued butt, tongue and groove butt joints etc.</p>	<p>Broadening and lengthening joints, description, types, users.</p> <p>Adhesives, type, uses etc.</p> <p>Hand tools:-</p> <p>Special saws, planes types, uses</p> <p>Timber:</p>	<p>Properties and users of brass, bronze, solder, bearing metal timber, rubber.</p> <p>System of units-British Metric and S.I. units for length area, volume, capacity, weight, time,</p>	<p>Do</p>

	<p>Lengthening joints: Different types of scarf joints Table scarf, bevel scarf, tension scarf, etc.</p>	<p>Seasoning: Types, advantages, disadvantages etc.</p> <p>Holding and striking tools, Hammers, Mallets etc,</p> <p>Clamps, gash cramps, 'T' bar cramps etc.</p>	<p>angle their conversion.</p>	
10	<p>A frame of different type of joints.</p> <p>Small article involving above joints may be made.</p>	<p>Files: Types grades uses, car, and maintenance of hand tools.</p>	<p>Effect of alloying elements of the property of C.I. and steel.</p>	<p>Importance of Putting dimension on the drawing as per IS 696/1972. How is measure the sizes of simple parts and the locations of the other operational surfaces, using simple measuring instruments and how to transfer the measurements or on the drawings of the features for dimension; Free hand sketches to study the techniques employed in dimensioning on the Drawing of features for size, location, hole arcs, angles, chamfer, taper etc. from given sample or sketches.</p>

<p>11 & 12</p>	<p>Introduction on wood working machines and workshop safety.</p> <p>Acquaintance with machine parts, function and operational techniques of all available wood working machines. Demonstrate each operation on different machine :-</p> <p>A) Band saw :- remove and refit of band saw blades setting and grinding</p> <p>Operations :- Ripping making planks/scantling from a log.</p> <p>Cross-cutting, curves, cutting , beveling chamfering etc.</p> <p>B) Circular Saw :- Ripping cross cutting rebating , grooving etc.</p> <p>C) Planning Machine :- Surfacing, thicknessing</p>	<p>Introduction on wood working machine:</p> <p>Descriptions, types, sizes, parts, functions operation and safety precautions, care and maintenance oiling, greasing etc. to be explained in brief of the following machines:</p> <p>A) Band Saw machine.</p> <p>B) Circular saw machines.</p> <p>C) Planning machines(thickness and surfaces</p> <p>D) Wood Turing Lathe with Turing tools,</p> <p>Market form of timber-Terms conversion of timber-Method, advantages and disadvantages of each methods and users,</p>	<p>Heat and temperature, thermometric scales their conversion temperature. Measuring instrument, quantity of heats, specific heat. Latent heat, Heat loss and heat gain-Simple problems.</p>	
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	<p>chamfering, edging beveling etc,</p> <p>D) Machine Operations Conditioned :- Wood Turning lathe :- Use of turning tools, plain Turning taper turning and Turning different articles- Chisel handles; table lamp stand etc.</p> <p>Use of face plate, chuck etc.</p>			
13 & 14	<p>E) Drilling Machine: Use of straight shank drills, taper shank drills, counter sinking bits etc.</p> <p>F) Grinding Machines :- Grinding of different types of tools cutters materials for jobs.</p>	<p>Wood working :- Machines continued :-</p> <p>Introduction of wood working machine, descriptions types sizes, parts, functions, operations and safely precautions, care and maintenance, Oiling, greasing etc. to be explained in brief of the following machines, continued</p> <p>E) Drilling Machines</p> <p>F) Grinding Machines</p> <p>G) Mortise</p>	<p>Rest and Motion, velocity, acceleration. Newton's law of Motion.</p>	<p>Isometric and oblique. Drawing- their methods of representation using simple solids like cube, rectangular block, stepped block cylindrical features, prisms</p>

		<p>H) Tenoning</p> <p>I) Sander</p> <p>J) Portable machine</p> <p>K) Universal wood working Machine. Calculate of timber weight area, volume etc.</p>		
15 & 16	<p>Use of special Saws :- Compass saw, frame saw, Bow saw, fret saw etc, Demonstration and practice.</p> <p>Use of special planes :- Compass plane, Molding planes etc.</p> <p>Demonstration and practice. Making a small wall bracket.</p> <p>Prepare chalk box. Tea tray or office Tray :-</p>	<p>Hand Tools :- Special Saws :- Description, type size, use care and maintenance, sharpening and setting of saws.</p> <p>Special planes :- Compass saw frame saw, bow saw fret saw etc. Description, type, size, use care and maintenance</p> <p>Timber :- Preservation timber :- Chemical treatment of Timber.</p> <p>Type, process etc. preservatives used in the aqua plant.</p>	<p>Moment or forces Simple problems or straight and bell cranked levers.</p> <p>Mass, Volume, Density, Weight C.G.S.M.K.S. and F.P.S. units of force weight etc. their conversion Shop problems.</p>	

17	<p>Use of country drill, hand drill, ratchet brace, Brest drill.</p> <p>Use of different type drill bits, hand augur layout of a stool and make cutting list. Prepare a standard height. Taper legged stool as per layout. Use of Adhesives.</p>	<p>Country drill, hand drill bit brace ratchet brace, breast drill-parts functions, sizes user in different places.</p> <p>Drill bits, type ,sizes different uses.</p> <p>Calculation of timber required for stool.</p> <p>Prepare cutting list from drawing (sewn size and finish size)</p>		
18 & 19	<p>Demonstration and make layout of different furniture.</p> <p>Making notice board or display board . User hard board ply wood and insulation board.</p> <p>Making a small rack or meat shelf.</p>	<p>Description of timbers used in furniture making work. :- Teakesal Deodar, etc. Other wood as available in the local market.</p> <p>Design of Furniture's for different purpose :- Bed room, dinning Hall, Library, Office, Work-shop ,Class room , Kitchen , Garden etc.</p> <p>Manufacturing process of various boards and shut-like ply wood block board laminated board hard board insulation board etc. and description, type market size, use selection of sheets and matching grade and color.</p>	<p>Power and Roots-Factors, power base, exponent.</p> <p>Multiplication and division of power, root of a number.</p> <p>Square root by arithmetic's and problems related to trade.</p>	<p>Orthographic projection Std. systems (1st angle orthographic projection & 3rd angle projection is 696/as per 1972 Free hand sketches of simple objects like vee blocks, stepped blocks simple brackets, black with holes and grooves to represent the views both in 1st and 3rd angle.</p> <p>Orthographic projection with dimensions.</p>

20 & 21	Manufactures a small table. Demonstration and use of lock, hinges, hasp and stable etc.	Nails and screw:- Types, sizes, and use , Nuts and tools, washers-do. Lock , hinges and staple lower bolt etc other fittings:- Type sizes and uses.	Effect of forest on materials in such application as extending , bend lug twisting, shearing etc. meaning of stress and strain.	
22	Making a small exercise and of Carving tools and their sharpening.	Properties of wood. Preparation bill of materials and simple estimation.		
23 & 24	Preparation of surface use too-thing plane for knoty or interlocked cross grained timber, scraping, sand papering etc. Preparation of putty and use. Preparation strain and application on finished surface.	Method of preparation of surface for straining tools and equipment required. Sand paper , types, grades finish and uses. Preparation of putty and use. Staining:- Type, process , methods and staining materials. Timber:- Different staining method applied for different timber.	Problems on percentage related to trade. Meaning of stress strain modulus of elasticity.	
25 & 26	Varnishing on finished surface :- Furniture polishing:- Demonstration hoe to make French police. Use of French police and wax police:- Re-move the police and Re-polishing old furniture.	Varnish:- type and use. French police, wax police, types and uses. Dowel: Types Size, in pattern making work	Algebraic symbols and fundamentals algebraic operations. Sign and symbols used in algebra; co-efficient terns like and unlike terms.	Free hand sketches of standard rivet forms as per I.S.I. employed on drawings. Standard forms of key and cotters.
33 & 34	Marking and Making patterns with self core and with core prints. Prepare	Types of core and core prints. Different use of core and core prints.	Algebraic addition, substration, multiplication and division.	-do-

	<p>core box and pattern. Coring the pattern to its various position:- (1) Casting position, (2) Machining position core print. Painting the pattern, core box etc. As per I.S.I. specifications.</p>	<p>‘color code’ as per ISI specification Use of paints on pattern core, core box, core prints etc. Estimate volume of wood and other requirement for pattern making box.</p>	<p>Power and exponent, Laws of exponent. Algebraic simplification problems. Election and its uses:- Electric current-positive and negative terminals use of fuses and switches conductor and insulators.</p>	
36 to 38	<p>Safety Precaution Making tools:- Use of steel rule, square, scribe, dividers, compass calipers etc. Use of Marking table, marking block etc. Use of hand tools:- Hacksaw, punch hammer cold different types files. Operations:- Chipping, filling etc. same basic exercise:- Making square block drilling counter-sinking etc. Use of taps and dies. Grinding of cold chisels punch, drill bits etc. Marking and making hanging plate corner, making name plate different types of clamps and</p>	<p>General safety in fitting shop. Marking tools:- Type, size, use-core 7 maintenance of tools:- Steel rule, square, scribe, dividers compass, calipers, and other tools. Making table, marking block etc. description, size use etc. Hack saw punch hammer cold chisel files etc. type size, use etc. Use of fitting vice clamps. Type of drill bits, and countersink bits tap in simple work. Type of hanging plates, corner plate, clamps, angles plates etc. Used in carpentry work. Type of Nut, bolt washer, machine screw, etc.</p>	<p>-Do- Factor and equations algebraic formulae.</p>	<p>Screw thread forms as per I.S.I. conventional application of internal and external screw thread-free hand sketches of nut, bolts, screw etc. -Do- Importance of blue print reading-guide line hoe to read-Simple blue print exercise reading related to missing lines, missing views, missing dimension, missing section , identification of surface symbols etc.</p>

	<p>angle plate used for wooden furniture.</p> <p>Use of nut, bolts, washer, machine screws etc.</p>			
39 to 41	<p>Use of common hand tools and related with sheet-Metal Works:- Steel rule square, snips, sheet-metal mallets punch, hammer stakes etc.</p> <p>Development from drawing and able to make layout of simple pattern</p> <p>a) Parallel line method</p> <p>b) Radial line method</p> <p>Cutting proper thin sheets folding the sheets as per drawings.</p> <p>Marking and making simple exercise. Punching making holes, washers, etc.</p> <p>Folding bending sheets at different angles.</p> <p>Fitting aluminum channel for sliding door.</p> <p>Top or rack.</p> <p>Bending E.R.W. and aluminum channel for furniture .</p> <p>Simple soldering brazing and</p> <p>Welding may be done.</p>	<p>Common sheet metal tools:- Description, type, size and etc.</p> <p>Reading of development drawing of simple job system of layout.</p> <p>Square, cylinder, cone, etc.</p> <p>Marking and making template for patterns making carpentry work.</p> <p>Shearing punching folding bending etc.</p> <p>Basic principal of simple and soldering , brazing and welding.</p>	<p>-Do-</p> <p>Factor and equations algebraic formulae.</p>	<p>Screw thread forms as per I.S.I. conventional application of internal and external screw thread-free hand sketches of nut, bolts, screw etc.</p> <p>-Do-</p> <p>Importance of blue print reading-guide line how to read- Simple blue print exercise reading.</p>

LIST OF TOOLS AND EQUIPMENT
FOR
A UNIT OR BATCH OF 16 TRAINEES

For Individual tool kit: - for 16 Trainees - 16 Sets.

ONE Set may be kept for Instructor -

(For demonstration) - 1 Set.

Three Sets may be kept for reserve - 3 Set.

A) For Extra trainers.

B) For replacement.

C) For any other skilled worker for Repairing work, maintenance Work etc.

Total: 20 Sets.

Sr. No.	Name of the tools & equipment as per the syllabus	No.reqd.for Instr.& Trainees for one Unit as per DGET norms.
1	RULE SIX 1 METER (INCH AND MM.)	20
2	MARKING KNIFE, 200 MM. LENGTH	20
3.	CARPENTER SQUARE 200 MM.	20
4.	SQUARE, BEVEL 50 MM.	20
5.	CARPENTER MAKING GAUGE	20
6.	CARPENTER MORTICE GAUGE	20
7.	SAW HAND 450 MM.	20
8.	SAW TENON 300 MM.	20
9.	PLANE, JACK METAL 335 MM. X 50 MM CUTTER.	20

10.	PLANE SMOOTHING, METAL 200 MM. X 50 MM CUTTER.	20
11.	CHISEL, FIRMER (BEVEL) EDGE 6 MM. 10,15,20 AND 25 MM.WIDTH (5 NOS.)	20
12.	CHISEL, MORTICE, 06,10,15 MM. (3 NOS)	20
13.	SCREW DRIWER 300 MM. (CABNIT MAKER)	20
14.	MALLET MEDIUM SIZE	20
15.	CLAW HAMMER 500 GR.	20
16.	OLI STONE (CARBORUNDUM) UNIVERSAL SILICON CARBITE COMBINATION ROUGH AND FINE 200X 50X25 MM	20
17.	HAND BRUSH FOR BENCH CLEANING 450 MM.	20
	<u>TOOLS: EQUIPMENT AND GENERAL OUTFIT</u>	
18.	MEASURING TAPE 3 METER	1 NOS.
19.	CONTRUCTION SCALE 1 METER	4 NOS.
20.	SPRING CALIPER INSIDE 150 MM.	4 NOS.
21.	SPRING CALIPER OUT SIDE	4 NOS.
22.	WING COMPASS 300 MM.	2 NOS.
23.	TRAMMEL	2 PAIR.
24.	SPRIT LEVEL 300 MM.	2 NOS.
25.	RIP SAW 600 MM.	4 NOS.
26.	CROSS CUT SAW MM.	2 NOS.
27.	KEY HOLE SAW 250 MM.	2 NOS.
28.	FRET SAW FRAME 150 MM.	2 NOS.
29.	COMPASS SAW 350 MM.	4 NOS.
30.	ADZE 15 KG.	4 NOS.
31.	TRYING PLANE METAL 450 MM. X 60 MM. CUTTER	2 NOS.
32.	PLANE RAVVET ADJUSTABLE 250 MM. X METERS X 9 MM. CUTTERS.	4 NOS.

33.	PLOUGH PLANE WITH SET OF 8 CUTTER UP TO 12 MM. WIDTH	4 NOS.
34.	SPOKE SHAVES 50 MM. CUTTER	8 NOS.
35.	PLANE ADJUSTABLE CIRCULAR 250 MM.	4 NOS.
36.	ROUTER PLANE	4 NOS.
37.	MOULDING PLANE SET	4 NOS.
38.	CABINET SCREPER 100 MM.	4 NOS.
39.	GAUGE CHISEL, FINNER, 6,10,12,16,20,MM.	8 SETS.
40.	GAUGE CHISEL, SERITING 6,10,12,16,20,MM.	8 SETS.
41.	BALL PEIN HAMMER 600 GRS.	4 NOS.
42.	CROSS PEIN HAMMER 600 GRS.	4 NOS.
43.	SCREW DRIVER 450 MM.	4 NOS.
44.	SCREW DRIVER 250 MM.	4 NOS.
45.	SCREW DRIVER 150 MM.	4 NOS.
46.	PINCER 50 MM.	4 NOS.
47.	FILE HALF ROUND 2 ND CUT 250 MM.	8 NOS.
48.	FILE HALF ROUND WOOD RASP BASTAD MM.	8 NOS.
49.	FILE SLIM TAPER 100 MM.	12 NOS.
50.	FILE SLIM TAPER 150 MM.	12 NOS.
51.	CARD FILE (STEEL) WIRE BRUSH FOR FILE	4 NOS.
52.	HANDS DRILL 6 MM. CAPACITIES.	8 NOS.
53.	COUNTRY DRILL WITH BOW (BALL BEARING TYPE)	4 NOS.
54.	RATCHEL BRACE 250 MM. SWAP	4 NOS.
55.	HAND AUGER 10,12,14,16,18,20,22,25 MM.	2 SETS.
56.	CENTRE BITS 6,8,10,12.	2 SETS.

57.	EXPANSION BIT SETS.	2 SETS.
58.	TWIST DRILL BITS 6,8,10,12, MM.	2 SETS.
59.	COUNTER SINK BIT ROSE TYPE 12 MM.	4 NOS.
60.	BREAST DRILL 6 MM.CAPACITY	2 NOS.
61.	CENTRE PUNCH 5	4 NOS.
62.	SNIP STRAIGHT 200 MM.	4 NOS.
63.	OIL CANS COMBINATION SIDE CUTTING PLIERS.	2 NOS.
64.	PLUNGER SAW SET / PISTOL GRIP TYPE.	2 NOS.
65.	NUMBER PUNCH 12 MM.	2 SETS.
66.	SLIP STONE 100 MM.	8 NOS.
67.	ROUND CROW BAR WITH CHISEL AND CLAW END 1070 X 25 MM.	2 NOS.
68.	' G' CLAMP 100.	8 NOS.
69.	'G' CLAMP 150 MM.	8 NOS.
70.	'G' CLAMP 250 MM.	4 NOS.
71.	'T' BAR CRAMP 0.6 METER.	8 NOS.
72.	'T' BAR CRAMP 1.25 METER.	4 NOS.
73.	'T' BAR CRAMP 1.75 METER.	2 NOS.
74.	CARPENTER VICE 250 MM JAWS.	16 NOS.
75.	SAW SHARPWNING VICE 250 JAWS.	2 NOS.
76.	CARVING TOOLS SET.	4 SETS.
77.	GOGGLES PAIR.	2 NOS.
78.	GLASS CUTTER.	2 NOS.
79.	NAIL PUNCH.	4 NOS.
80.	SURFACE PLATE 600 X 600 MM.	1 NOS.

81-A	CARPENTER'S WORK BENCH 2400X920X800 MM. HEIGHT.	8 NOS.
81.	OIL CAN.	4 NOS.
82.	STEEL LOCKERS, 8 COMPARTMENTS, WITH INDIVIDUAL LOCKS. 1980 X 910 X 480 MM DEPTH.	2 NOS.
83.	STEEL ALMIRAH WITH SHELVES 1980 X 910 X 480 MM DEPTH.	2 NOS.
84.	INSTRUCTOR TABLE (HALF SECRETARIATE)	1 NOS.
85.	INSTRUCTOR CHAIR.	2 NOS.
86.	STOOL.	1 NOS.
87.	CHALK BOARD WITH EASEL.	1 NOS.
88.	METERIAL RACK.	1 NOS.
	<u>GENERAL INSTALLATION AND ACCESSORIES</u>	
89.	COMBIND SURFACER AND THICKNER.	1 NOS.
90.	CIRCULAR SAW MACHINE 3.00 MM.DIA.	1 NOS.
91.	'LATHE, WOOD TURNING.' 150 MM HEIGHT OF CENTRES 1.75-METER BED, MOTORISED COMPLETE WITH A SET OF TURNING TOOLS.	3 NOS.
92.	SET OFTURNING TOOLS FOR ABOVE LATHE MACHINE.	3 SETS.
93.	TENONING MACHINE (SINGLE ENDED)	1 NOS.
94.	MORTISING MACHINE (COMBINE HOLLOW CHISEL AND CHAIN)	1 NOS.
95.	BENCH RINDER 200 MM.WHOLE D.E. PEDESTAL	1 NOS.
96.	DRILL MACHINE 12 MM. CAPACITY	1 NOS.
97.	PORTABLE ELECTRIC DRILL 6 MM. CAPACITY (WOIF TYPE)	1 NOS.
98.	DRILLS CHUCK 12 MM CAPACITIES.	1 NOS.
99.	PORTABLE DISCSANDER 200 MM. DIA.	1 NOS.
100.	ADJUSTABLE SAW SHARPENER.	1 NOS.
101.	ELECTRIC HEATER 1000/1500 W	1 NOS.

102.	ELECTRIC BLOWER (PERTABLE)	1 NOS.
103.	MOISTURE METER	1 NOS.
104.	GREESE GUN.	1 NOS.
105.	SPANNER DOUBLE ENDED SET OF 14.	1 NOS.SET.
106.	UNIVERSAL WOOD WORKING MACHINE.	1 NOS.
107.	ELECTRICAL DRYING OVEN (SMALL TYPE).	1 NOS.
108.	BAND SAW MACHINE WITH PROVISION.	1 NOS.
109.	FIRE EXTINGUISHER.	1 NOS.
110.	FIRE BUCKETS.	4 NOS.

- NOTE :**
1. No additional items are required to be provided to the batch or unit working in the second shift except the items under the Trainees tool kit and lockers.
 2. The trainee for the main trade will be sent to the different sections for allied trade training. Separate list of tools and equipment required for allied trades are not included in this list.