

Syllabus for the subject

of

**TRADE THEORY
&
TRADE PRACTICAL**

Under

CRAFT INSTRUCTORS TRAINING SCHEME (CITS)

Bamboo works

Re-Designed in

- 2014 -

By

**Government of India
Ministry of Labour & Employment
Directorate General of Employment & Training**

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A. RATIONALE

Success & Sustainability of any Training System mainly depends upon availability of good quality instructors. An Instructor should possess good trade skills to impart skill training. To cope up this quality possession of trade skills is imperative.

Ability to understand and interpret the course content is essential to perform a job / task of Engineering Trades. It is the Skills, Knowledge and Attitude which enables comprehending the given job and subsequent planning to complete the task/job. Thus it is imperative for any trade instructor to have skill so that same can be transferred.

For an instructor it is essential to have in depth knowledge set which enables analyzing the given job and subsequent detail planning. To transfer skill the practical know how is most important criteria as in ITI system skill is the ultimate requirement. To perform a task/job both theoretical and practical knowledge are very much needed. Thus Trade Technology is regarded as basic/hard skills which are base of all skill based training.

Recognizing this importance maximum weightage has been given to the Trade Technology in all Engineering Trades in Craft Instructors Training Scheme (CITS) under NCVT.

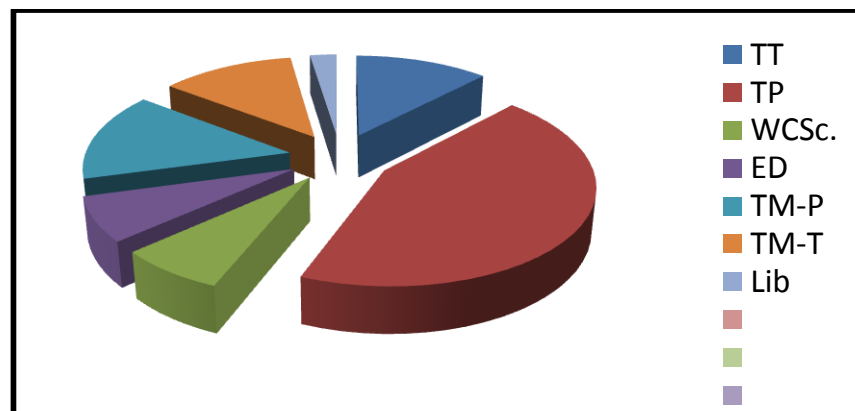
B. GENERAL INFORMATION

1. Name of the Course : **CITS (Bamboo Works)**
2. Duration of Instructor Training : 1 Year (Two semesters each of six months duration).
3. Subjects covered in the Semesters : Detailed in Section - C
4. Name of the Subject : **TRADE THEORY – I & II
& TRADE PRACTICAL- I & II**
5. Applicability : **BAMBOO WORKS TRADE**
6. Examination : AITT to be held at the end of each semester.
7. Space Norms : (a) One class room of minimum 30 sq. meter. area having Minimum width of 5 m. and with 6000 lumen
(b) Workshop : 120 sq. meter having minimum width of 8 m. and with 30000 lumen
The electrical equipments of Class room should conform to minimum 3 star Building energy rating as per Bureau of Energy Efficiency (B.E.E.)
8. Power Norms : (a) 1 KW for Class room
(b) 10 KW for Workshop.
9. Unit strength (Batch Size) : 20
10. Entry qualification : Diploma/Degree in Civil/Mechanical Engineering from AICTE recognized Board / University. OR
National Trade Certificate in the relevant trade OR
National Apprenticeship Certificate in the relevant trade

C SEMESTER WISE ALLOTMENT OF TIME & MARKS AMONG THE SUBJECTS FOR CITS

	SUBJECTS	Hrs. / Week	% of time allotted	Marks	Sessional	Full Marks	Pass Marks		
							Exam.	Sessional	Total
First semester	Trade Practical – 1	20	50	200	30	230	120	18	138
	Trade Theory - 1	6	15	100	20	120	60	12	72
	Workshop Cal. & Sc.	6	15	50	-	50	30	-	30
	Engineering Drawing	6	15	100	-	100	60	-	60
	Library	2	5	-	-				
	TOTAL for Sem. - I	40		450	50	500	270	30	300
Second semester	Trade Practical – 2	16	40	200	30	230	120	18	138
	Trade Theory - 2	4	10	100	20	120	60	12	72
	Training Methodology - Practical	12	30	200	30	230	120	18	138
	Training Methodology - Theory + IT	6+2	20	100	20	120	60	12	72
	TOTAL	40		600	100	700	360	60	420
	GRAND TOTAL	80		1050	150	1200	630	90	720

Hourly Distribution TOTAL: 1200 marks for 2 semesters Pass marks: 720



Subject	Time in %	Marks in %
Trade Practical	45	38.3
Trade Theory	12.5	20
1) Total for Trade	57.5	58.3
Training Methodology (Practical)	15	19.2
Training Methodology (Theory) + IT	10	10
2) Total for Training Methodology & IT	25	29.2
3) Engineering Drawing	7.5	8.3
4) Workshop Cal. & Sc.	7.5	4.2
5) Library	2.5	-
TOTAL of 1 - 5	100	100

D.SYLLABUS FOR THE TRADE: BAMBOO WORKS UNDER CRAFT INSTRUCTORS TRAINING SCHEME

SEMESTER – I

Note: During the discussion of any machine tools, related precautions and safety measures should be discussed.

Sl.No.	Trade Practical	Trade Theory
1	<p>Utilization of Bamboo</p> <ul style="list-style-type: none"> • Demonstration of different bamboo item, its modern utilization by showing visual aids • Demonstration through field visit and Nursery Practice 	<ul style="list-style-type: none"> • Anatomy of Bamboo & History of bamboo utilization. • Traditional and modern utilization of Bamboo. Various bamboo species available in India • Knowledge of various Bamboo cultivation Techniques, type of propagation methods practice in India. • Diseases of Bamboo & its remedies
2	<p>Treatment & Preservation of Bamboo</p> <ul style="list-style-type: none"> • Traditional practice on Bamboo Treatment • Practice on Chemical Treatment • Practice on Smoke Treatment • Practice of dying utilizing various chemical & vegetative dyes. 	<ul style="list-style-type: none"> • Various techniques of Treatment Preservation & Seasoning of Bamboo(Through ancient/traditional and modern methods) • Colouring/Dying of Bamboo strips/ slivers/bamboo pole.
3	<p>Application of Tools</p> <ul style="list-style-type: none"> • Safe practice on various hand tools like hammer, chisel, dao, file, planner, hand saw etc. • Safe practice on different machine tools, like Drill, portable sander, jig saw, sabre saw etc. 	<ul style="list-style-type: none"> • Description of various hand tools and machine tools used on Bamboo technology, • Identify the various parts of tools and its application in practical field
4	<p>Joints</p> <ul style="list-style-type: none"> • Practice on tongue and joint, • Practice on Butt Joint. 	<ul style="list-style-type: none"> • Description of various joint and its uses in different section like furniture, Handicraft &Housing etc.

	<ul style="list-style-type: none"> • Practice on Overlapping joint, • Practice on Horizontal joint, 	<ul style="list-style-type: none"> •
5	<p>Bending of Bamboo</p> <ul style="list-style-type: none"> • Safe practice of Bending bamboo strips, Slivers & bamboo pole using blow lamp. • Make natural black colour on surface of bamboo pole by blow lamp. 	<ul style="list-style-type: none"> • Different parts of Blow Lamp. • Application of blow lamp in Bamboo activities. • Various process of bending. •
6	<p>Bamboo Cross Cutting Machine</p> <ul style="list-style-type: none"> • Practice of Cross Cutting machine, oiling and lubrication of machine • Cut bamboo as per desire length • Practice on sharpening the saw blade • Practice on different primary processing machineries 	<ul style="list-style-type: none"> • Brief description of cross cutting machine and how to operate, trouble shooting of this machines • Introduction of Bamboo Primary processing Machineries and its uses •
7	<p>Splitting Machine& Node removing machine</p> <ul style="list-style-type: none"> • Splitting of bamboo by Radial splitting Machine. • Splitting of Bamboo by parallel Splitting Machine. • Make Bamboo Strips after removing inside node & outside node. 	<ul style="list-style-type: none"> • Detailed specification of Radial Splitting Machine& Parallel Splitting Machine, • Identify various parts and its uses. • Procedures of safe operation of splitting machine and rectify trouble shooting. • Brief description of knot removing machine and how to operate, trouble shooting of the machine
8	<p>Round Stick Making machine & Polishing Machine</p> <ul style="list-style-type: none"> • Make round sticks of various diameter • Practice of safe operation in Round Stick Making Machine • Practice of operation in manual slivering machine, oiling and lubrication of machine • Practice of operation in Polishing Machine oiling and lubrication of machine 	<ul style="list-style-type: none"> • Brief descriptions of Round stick making machine. • Brief description of polishing machine. • Brief description of manual slivering machine • Various steps follow for safe operation of Round Stick Making Machine, Polishing Machine. • Procedures to change cutter & make various diameter of stick • Proper Adjustment of various parts of Machine for making stick • Identify the trouble shooting and rectify
9	<p>Bamboo 2/4 Side planner& Electrical Stand Drill machine</p> <ul style="list-style-type: none"> • Practice of operation in electric drill machine, 	<ul style="list-style-type: none"> • Brief description of Hydraulic Press Machine and its operation & maintenance and also trouble shooting of this machines

	<p>oiling and lubrication of machine</p> <ul style="list-style-type: none"> Practice of operation in 2 side/4 side machine planer, oiling and lubrication of machine including preventive maintenance 	<ul style="list-style-type: none"> Brief description of Resign Applicator and Its operation & maintenance and also trouble shooting of this machines
10	<p>Hydraulic Press Machine& Resign Applicator</p> <ul style="list-style-type: none"> Practice on Hydraulic Press Machine Practice on Resign Applicator machine Practice of making 4mm bamboo mat board. 	<ul style="list-style-type: none"> Brief description of Hydraulic Press Machine and its operation & maintenance and also trouble shooting of this machines Brief description of Resign Applicator and Its operation & maintenance and also trouble shooting of this machines
11	<p>Glue Mixing and Automatic WeavingMachine</p> <ul style="list-style-type: none"> Make window blinds with the help of Automatic weaving machine Practice on Glue Mixing machine and D D Saw machine Practice on weaving Machine 	<ul style="list-style-type: none"> Brief description of Glue Mixing Machine &DD Saw machine. Specification in detailof Automatic Weaving machine Safe operation of Glue Mixing & Automatic Weaving Machine Identify the problems arise during operation and rectify it
12	<p>Maintenance of Machine</p> <ul style="list-style-type: none"> Cleaning of machine. Lubrication and oiling of machine and rectify trouble shooting. 	<ul style="list-style-type: none"> What precaution should be observed in operating bamboo processing machine and proper maintenance of machine
13	<ul style="list-style-type: none"> Types of Furniture Free hand drawing of various bamboo furniture Demo of various type of furniture, Make various furniture Uses of cane in joineries of bamboo furniture 	<ul style="list-style-type: none"> Identification of various furniture such as Round Bamboo Furniture, Folded Bamboo Furniture, Moulded Bamboo Furniture, Split Bamboo Furniture etc Describe the advantages of various furniture Various techniques uses to make furniture Identify various tools & Machines used to make furniture
14	<ul style="list-style-type: none"> Materials of Furniture Demonstration of different material used in Furniture making 	<ul style="list-style-type: none"> Use of Jigs& fixture to make uniform size & reduce production cost. Bamboo, Cane, Wood, Nail, Adhesive, Binding wire, Plastic Rope, Nut-bolt etc.

15 - 22	<ul style="list-style-type: none"> • Techniques and Furniture making • Practice of furniture making 8- weeks <ol style="list-style-type: none"> 1. Sofa set 2. Chair 3. Table 4. Bed 	<ul style="list-style-type: none"> • Various joineries used in furniture making process • Various joineries & it's application in Furniture making process
23,24	Project work	
25	Revision	
26	Examination	

D.SYLLABUS FOR THE TRADE: BAMBOO WORKS UNDER CRAFT INSTRUCTORS TRAINING SCHEME

SEMESTER – II

Note: During the discussion of any machine tools, related precautions and safety measures should be discussed.

Sl. No.	Trade Practical	Trade Theory
1	<p>Selection of Bamboo as per Job</p> <ul style="list-style-type: none"> • Identification of bamboo as per job requirement at practical field. • Selected species will identify and bring to workshop for primary processing. 	<ul style="list-style-type: none"> • Various bamboo species and their utilization , • Selection of bamboo as per job specification.
2	<p>Drawing of products</p> <ul style="list-style-type: none"> • Practice on free hand drawing of various handicraft items • Practice on Drawing of various gift items, stationery Item • Free hand drawing of various furniture 	<ul style="list-style-type: none"> • Practice of free hand sketching of circle & arcs • Uses of drawing instrument • Drawing various line with setsquare • Practice on drawing of conventional lines • What is Design? • Free hand drawing of various items • Construction of triangle, quadrilaterals, polygons • Lettering practice
3	<p>Basics of Computer</p> <ul style="list-style-type: none"> • Booting the Computer, Opening • Windows, menus, using the mouse, create a directory in Windows, create a directory, create a File and Folder, use my documents, use start menu for opening an application, change control panel 	<ul style="list-style-type: none"> • Introduction to computer fundamentals and its parts, • Familiarizing with Drives, Booting of a Computer system, Using the mouse, right click, left click and use of operating systems like Windows OS, menu system, Tool bars,.

	settings for display, Familiarize with Key Board and Keys.	
4	Word Processing <ul style="list-style-type: none"> • Practice on MS Word • Practice on Internet 	<ul style="list-style-type: none"> • .Use of word processing software • Use of Internet
5	AutoCAD <ul style="list-style-type: none"> • Menu bar • AutoCAD pull down menu • Standard Toolbar • User Coordinate System Icon • Command Line • Command windows 	<ul style="list-style-type: none"> • What is Auto CAD & its purpose
6	Design practice on AutoCAD <ul style="list-style-type: none"> • Practice on Drawing of various gift items, stationery Item 	<ul style="list-style-type: none"> • Design intervention on new innovative products. • Different aspects of drawing
7	Bamboo Gift items and Bamboo ornaments <ul style="list-style-type: none"> • Practice of dyeing & colouring • Practice of make thin slivers for ornament • Practice on different weaving techniques • Make a design of Gift item, & bamboo jewelries/ornaments Making of Bamboo bags <ul style="list-style-type: none"> • Making some products like tray, tea coaster, bamboo bags etc in workshop with the help of machines and hand tools. 	<ul style="list-style-type: none"> • Natural & Synthetic Dyeing of slivers • Practice of bamboo ornaments and various gift items • Designing of various Handicraft items • Identification of suitable products as per market demand like tea coaster, bamboo bags, place mat etc. • Make a process lay-out of all individual products
8	Making of Bamboo Models <ul style="list-style-type: none"> • Practice of making model and mock 	<ul style="list-style-type: none"> • How to make model & mock up • Selection of Marketable Product •
9	Making of Bamboo Mats and Blinds <ul style="list-style-type: none"> • Practice of mat weaving • Practice of blinds Making by automatic weaving 	<ul style="list-style-type: none"> • Different weaving techniques for mat weaving • Process layout of Weaving Bamboo Mats, • Process layout of making Bamboo Blinds

	machine and Manually	<ul style="list-style-type: none"> • Different patterns of Mat and Blind •
10	Maintenance of Machines <ul style="list-style-type: none"> • All bamboo pieces and powder is removed from Working points using supplied tools and equipment for safe operation of machine • All movable Parts are lubricated • Practice of sharpening the saw blades, cutter & Knives 	<ul style="list-style-type: none"> • Identify the movable parts of all machine • Lubricate all movable parts with mobile, grease & specific lubricant • Procedures follow to open saw blades, cutter, Knives etc for resharping • Procedures follow to adjust(tight/loose/up/down) all parts in proper place for safe machine operation
11	Jigs and Fixtures <ul style="list-style-type: none"> • Make various jig & fixtures as per requirement and make different products. • Make various molds for making molded Products. • Practice on bamboo moulded furniture 	<ul style="list-style-type: none"> • What are jig and fixtures? • What are the advantages of Jig & fixtures? When we use Jig & Fixtures? • What are the materials using to make jig & fixtures? • What are the tools & equipment required to make Jig & fixture
12	Finishing Technique <ul style="list-style-type: none"> • Practice of filling material on bamboo products • Practice of sanding , polishing & buffing • Final touch on the products using finishing materials 	<ul style="list-style-type: none"> • Various methods of finishing techniques, • Various finishing materials & there uses.
13	Quality Concern <ul style="list-style-type: none"> • Practice on melamine finishing • Practice on PU finishing • Random samples are taken according to Company sampling procedures. • Samples are measured for specified parameters according to company technical specifications. 	<ul style="list-style-type: none"> • What is Quality concerns • Sample and assess Bamboo production according to company technical specifications. • Range: parameters to be specified.

14	Packaging and Storing <ul style="list-style-type: none"> Practice on packaging & storing. 	<ul style="list-style-type: none"> Various packaging as per sample products . Method of proper packaging of finished products & proper storing.
15	Transportation and Delivery <ul style="list-style-type: none"> Survey the Bamboo market. Arrange the Transport service. Delivery of finished product 	<ul style="list-style-type: none"> Knowledge of transportation & marketing. Concept of sales services. Calculation of cost of finished Bamboo.
16-22	Project Work <ul style="list-style-type: none"> Visit to various shop and exhibition Market survey in some cities participating at various Exhibition, Seminar, Trade fair etc. Techniques and Furniture making <ul style="list-style-type: none"> Practice of furniture making 7- weeks <ol style="list-style-type: none"> Molded Bamboo Chair Relaxing Chair Centre Table Folding chair 	<ul style="list-style-type: none"> provide customer relation & estimate job Sell simple bamboo products on local market Develop business skills for simple product unit Communication skills that are useful to customer service are identify in accordance with enterprises requirements.(speaking, giving information, active listening)
23,24	Project work	
25	Revision	
26	Examination	

E.List of Tools and Equipments

SL No.	Item	Qty
1.	Combination pliers 200 mm insulated	20 Nos.
2.	Screw driver 100mm, 200mm	20 Nos.
3.	Neon Tester 500 V pencil bit type	20 Nos.
4.	Electrician knife	20 Nos.
5.	Hammer ball pen 250gm	20 Nos.
6.	Half Round File 12"	20 Nos.
7.	Half Round Chisel 10"	20 Nos.
8.	Hammer ball pin 500gm	20 Nos.
9.	Center punch 100 mm	20 Nos.
10.	Steel measuring tape 20 mts.	5 Sets
11.	Allen keys set	20 Sets
12.	Spanner double ended set (6-37mm)	10 Sets
13.	Adjustable Spanner 8",10" 12",14" (each 2pcs)	8 Nos.
14.	Steel rule 300 mm	20 Nos.
15.	Electric soldering iron 35 w	5 Nos.
16.	Electric soldering iron 125 w	5 Nos.
17.	Rubber gloves 5000 v	4 pairs
18.	Multimeter 0-5, 100, 200, 500 mili amperes 0-100-1000 10000 ohms 0-150, 300, 600 VAC/DC	2 Nos.
19.	Tong Tester	1 No.
20.	Megger	1 No.
21.	Desktop Computer with latest configuration	10 Nos.
22.	UPS WITH 5 KVA CAPACITY	1 No.
23.	LASER PRINTER	1 NO.
24.	Scanner	1 No.
25.	Plotter	1 No.
26.	WINDOWS 7 OPERATING SYSTEM	10 NOs.
27.	MS OFFICE 2010	10 Nos.
28.	Latest version of AutoCAD Software	1 0 no.
29.	Common Hacksaw	20
30.	Adjustable Hacksaw	20
31.	Hand saw(450 mm)	5
32.	Round Knife	20
33.	Radial Hand splitter (4.8.12.16 blades)	2
34.	Dao 8"and 12" each 20pcs	40
35.	Pruning Scissor	20
36.	Handrill	20
37.	Electric Handrill	4
38.	IDC Gauge	10
39.	BAMBOO CROSSCUT MACHINE, HEAVY DUTY INCLUDING 2 H.P. MOTOR, STARTER AND CARBIDE TIPPED CIRCULAR SAW 16" X 3 mm X 120 TEETH <ul style="list-style-type: none"> • Maximum diameter of Bamboo to be cut : 200mm (8") • Dimensions of the Machine • (including Front & back guider) : 17'X4'X2.5' • Power consumption : 2 H.P 	1 no.

	<ul style="list-style-type: none"> Spindle Speed : 2800 rpm 	
40.	<p>BAMBOO PORTABLE CROSSCUT MACHINE, INCLUDING 2 H.P. MOTOR, STARTER AND CARBIDE TIPPED CIRCULAR SAW 14" X 3 mm X 120 TEETH</p> <ul style="list-style-type: none"> Maximum diameter of Bamboo to be cut : 150mm (6") power consumption : 2 H.P Spindle Speed : 2800 rpm 	1 no.
41.	<p>BAMBOO RADIAL SPLITTER (CHAIN TYPE) Including various grill for different diameter of bamboo</p> <ul style="list-style-type: none"> Dimension of the Machine : 140"x40"x40" Power consumption : 5 H.P Max. length of bamboo that can be split : 8 feet Max. diameter of bamboo to split : 8" 	1 no.
42.	<p>BAMBOO ROUND STICK MAKING MACHINE</p> <ul style="list-style-type: none"> Dimension of the Machine : 30"x30"x48" Net Weight : 450 Kgs Power consumption : 7 H.P Max. width of the bamboo strip : 25 mm Specification of cutters <p>Carbide Tipped Planner Cutters 1 No. : 100x25.4x25x7 Teeth Carbide Tipped Stick Making cutters, 2 Nos : 78x25.4x25x12 teeth (1.5mm & 3mm)</p>	1 no.
43.	<p>Bamboo Square Stick Making Machine</p> <ul style="list-style-type: none"> Dimensions : 18"x22"x8" Power Consumption : 1 H.P 	1 no.
44.	<p>BAMBOO STICK POLISHING MACHINE</p> <ul style="list-style-type: none"> Dimensions of the machine (in metre) : 3.8 x 1 x 1.3 Power Consumption : 2 H.P Maximum length of sticks : 18" 	1 no.
45.	<p>Bamboo Inside Node Removing cum Slicing Machine (Heavy Duty)</p> <ul style="list-style-type: none"> Dimensions of the machine (in metre) : 1.2 x 1 x 1.3 Power Consumption : 2 H.P Maximum width of bamboo split : 40 mm Minimum thickness of strips can be produced : 1.5mm Maximum thickness of strips can be produced : 10mm 	2 nos.
46.	<p>Bamboo Stick Sizing Machine</p> <ul style="list-style-type: none"> Maximum height of the bamboo lump : 100mm Dimension of the machines, in meter : 1.2 X 1.2 X 1.5 Power Consumption : 2H.P Carbide Tipped Circular Saw : 400X25.4X120 Teeth (2.2 Thickness) 	1 no.

47.	Bamboo Double Side Cutting Machine, Parallel Splitter Maximum Diameter of bamboo to be split : 8" Dimension of the machine, in meter : 2.3 X1.3 X 1.3 Maximum diameter of circular : 14" X2.5mm X80-100 Teeth Power consumption : 3 H.P X 2 Spindle speed, in revolution per minute :2700 r.p.m	1 no.
48.	Bamboo Two Side Planning cum Sizing Machine Maximum Width of bamboo to be plane : 35mm Dimension of the machine : 74"X22"X41" Power consumption : 8 H.P	1 no.
49.	Bamboo Four Side Planning Machine Maximum width of bamboo : 35mm Dimension of the machine, in meter : 1.5x1.2x1.6 Maximum thickness of bamboo : 20 mm Power consumption : 7 H.P	1 no.
50.	Bamboo Treatment Tank Outside dimensions of the Treatment Plant : 9'x2'x3' Maximum temperature for bamboo seasoning unit : 120 degree C. Chemical recommended : Boric/Borax acid Metal Sheet (thickness 2mm) : Stainless Steel	1 no.
51.	Bamboo Dying Tank Outside dimensions of the Treatment Plant : 2'x2'x1.5' Maximum temperature for bamboo seasoning unit : 120 degree C. Chemical recommended : synthetic or natural chemical Metal Sheet (thickness 2mm) : Stainless Steel	1 no.
52.	Bamboo outside knot removing machine Power consumption : 1 H.P Height of the table : 30"	1 no.
53.	Manual Slivering machine	4 no.
54.	Wood related machine a) Universal Grinding machine b) Table grinding machine c) Hand Gloves	1 no. 2 nos. 20 nos.
55	Portable sanding machine	1 no.
56.	Spray Gun	5 nos
57.	Drying Chamber	1 no.
58.	Resign Applicator	1 no.
59.	Glue mixing machine	1 no.
60	Hydraulic Press Machine(4' X2') with thermic fluid heater (Maximum pressure required 45 kg/cm ²)	1 no.
61.	DD Saw	1 no.
62.	Half Round Chisel (1/2")	10 no.

63.	Ladder aluminum (30 m)	1 no.
64.	Bench vice	5 nos
65.	C. Clamp	1 no.
66.	Gloves Canvas	10 no.
67.	Portable Grinding machine with various polishing stones	2 no.
68.	Brush for painting	10 no.
69.	Drawing board with facility of parallel bar	10no.
70.	Mini drafter	20 no.
71.	Automatic weaving machine (Single design)	1 no.
72	Pneumatic Nailer	1 no.
73	Gas torch	10 no.
74	Wood turning lathe (6')	2 nos
75	Table Grinding machine (8")	2 nos
76	Industrial Sewing Machine	4 nos
77	Bamboo Tool kit boxes including 24 nos various kits	20 nos
78	Clamps for holding or tightening the jobs	10 nos
79	Manual press machine	2 nos
80	Sizing machine for window blinds	1 no
81	Compressor (300lbs)	2 Nos
82	Automatic Slivering Machine	2 Nos.
83	Portable Planner	2 nos
84	Various Mould for making moulded Furniture	Lots
85	Portable rip saw	4 nos
86	Mitre saw	2 nos
87	Universal Planner	1 nos
88	Portable Jig saw	4 nos
89	Stand Drill machine 1"	2.Nos

F. Furnitures:

Sl. No.	Workshop furniture	Qty
1	Work Tables ,Size: 8' X 4' X 3', Frame should be made by Iron Angle of 4"X4".Top will be Wood plank of 2" thickness	4 Nos.
2	Stools	17 Nos.
3	Discussion Table	1 Nos.
4	Tool Cabinet	2 nos.
5	Trainees locker with 16 boxes	2 Nos.
6	Firefighting equipment, first aid box etc.	5 Nos.
7	Book Shelf(Glass panel)	1 No.
8	Storage Rack	2 Nos.
9	Storage Shelf	2 Nos.
Sl. No.	Furniture – Computer Lab	Qty
1	Suitable Computer Tables	10 Nos.
2	Computer Chairs	20 Nos
3	Tool Cabinet	2 Nos.
4	Trainees Locker with 16 boxes.	2 Nos.
5	Book Shelf (Glass panel)	1 No.
6	Shoes Rack	2 Nos.
7	Vacuum cleaner	1 No.

S.No	Furniture for Class Room	Quantity
01	Class Room Chairs (armless) / Dual desk may also be allowed	30 /15
02	Class Room Tables (3ft X 2ft) / Dual desk may also be allowed	30 /15
03	Chair for Trainer (armed) movable	01
04	Table for Trainer (4 ½ ft X 2 ½ ft) with Drawer and cupboard	01
05	LCD Projector	01
06	Multimedia Computer System with all accessories with UPS (.5 KVA)	01 set
07	Computer Table	01
08	White Board (6ft X 4 ft.)	01 no.
09	LCD Projector Screen	01
10	Air Conditioner 1.5Ton (OPTIONAL)	02
11	Wall Clock	01 no.
12	Wall charts, Transparencies and DVDs related to the trade	As required
13	Document Camera / Visualizer	01
14	Smart Board / Inter Active Board	01
15	Over Head Projector	01
16	Video Camera with stand	01
17	Printer cum Scanner	01
18	Laptop with all latest OS	01

.LIST OF TRADE COMMITTEE MEMBERS

Sl. No	Names & Designation	Organisation	Remarks
Members of Sector Mentor council			
1	Dr.G.Buvanashakaran	AGM, WRI, Trichy	Chairman
2	Dr.K.Ashokkumar	AGM, BHEL, Trichy	Member
3	Prof. JyothiMukhopadhyia	IIT, Ahmedabad	Member
4	B.Pattabhiraman	MD, GB Engineering, Trichy	Member
5	Dr.Rajeevkumar	IIT, Mandi	Member
6	Dr. Vishalchauhan	IIT, Mandi	Member
7	Shri D.K.Singh	ITI, Kanpur	Member
8	Shri. Navneet Arora	IIT, Roorkee	Member
9	Shri. R. K. Sharma	Head, SDC, JBM Group, Faridabad	Member
10	Shri. Puneet Sinha	Deputy Director, MSME, New Delhi	Member
Mentor			
1	Shri.DeepankarMallick	Director of Training, DGE&T Hq,	Mentor
Members of Core Group			
1	Shri. M Thamizharasan	JDT, CSTARI, Kolkata	Member
2	Shri. M Kumaravel	DDT, FTI , Bangalore	Member
3	Shri. SushilKumar	DDT, DGE&T Hq,	Member
4	Sri Ranjit Borthakur, Superintendent	Govt. ITI, Kokrajhar	Member
5	Sri H. Priyokumar Singh, Deputy Manager	Cane and Bamboo Technology Centre, Byrnihat, Guwahati	Member
6	Sri Pulak Mandal, Assistant Manager	Cane and Bamboo Technology Centre, Byrnihat, Guwahati	Member
7	Sri B K Singha,	DDT, CSTARI, Kolkata	Team Leader
8	Shri. Gopalakrishnan	TO, NIMI, Chennai	Member