

SYLLABUS

For the trade of

DESK TOP PUBLISHING OPERATOR

(semester Pattern)

(For Visually Impaired and other Disabled)

Under

CRAFTSMAN TRAINING SCHEME (CTS)

**Designed in
2013**

Government of India
Ministry of Labour & Employment
Directorate General of Employment & Training
CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE
BLOCK EN –81, SECTOR – V, SALT LAKE CITY
KOLKATA – 700 091

List of the members attended the Trade Committee Meeting for designing Syllabus for the trade of “**Desk Top Publishing Operator**” (DTPO) under craftsman Training Scheme (CTS) (for Visually Impaired and other Disabled) held on 11th March’2013 at Blind People’s Association, Vastrapur, Ahmedabad, Gujarat.

Shri R.N.Bandyopadhyaya, Director, CSTARI, Kolkata.

Sl. No.	Name & Designation, S/ Shri/Smt.	Organisation	Remarks
1	Mr. S. A. Pandav, Joint Director (Training)	Directorate Employment & Training, Gandhinagar	Chairman
2	Mr. L. K. Mukherjee, Dy. Director of Training	Central Staff Training & Research Institute, Kolkata	Member
3	Mr. Nirmalya Nath, Asst .Director of Training	Central Staff Training & Research Institute, Kolkata	Member
4	Dr. Bhushan Punani, Executive Director	Blind People Association, Ahmedabad	Member
5	Mr. G. N. Parekh, RDD (Training)	Directorate Employment & Training, Gandhinagar	Member
6	Mr. K. K. Bhatt, Deputy Director	Vocational Rehabilitation Centre, Ahmedabad	Member
7	Mr. P. B. Vyas, Principal	I.T.I. Kubernagar	Member
8	Ushma Anerao, In charge Principal	Government Girl’s Polytechnic, Ahmedabad	Member
9	Tejal Lakhia, Hon. Superintendent	I.T.C; Blind People Association, Ahmedabad	Member
10	Mr. Ketan Shah, Vice President	All Gujarat Council for the deaf, Ahmedabad	Member
11	Chandaben Chauhan, Principal	I.T.I. Vijapur	Member
12	Yatin Trivedi, S.I COPA	I.T.I.(Women) Thaltej, Ahmedabad	Member
13	Vinu Chawla, Consultant	Directorate Employment & Training, Gandhinagar	Member
14	Mr. Sipai Zakir, Data Entry Operator	Multi category Training Centre For The Handicap	Member
15	Hareshchandra P. Dave, Instructor	Training Centre for the Adult Deaf, Ahmedabad	Member
16	Jay Shah, System Analyst	Tata Consultancy Service Ltd.	Member
17	Anisha Y. Dodiya, I.T. Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
18	Vidhi A. Shah, I.T. Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
19	Kruti k. Shah, I.T. Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
20	Pratibha R. Sharma, Computer Engineer Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
21	Kritika Shrivastava, Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
22	Pooja J. Varaiya, Computer Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
23	Jalashree D. Trivedi, Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
24	Nirali R. Sheth, Computer Engineer Lecturer	Govt. Polytechnic for Girls, Ahmedabad	Member
25	Nainesh J Purohit, I.T. Professional	Lifecare Hospital Pvt. Ltd, Ahmedabad	Member

List of members attended the Trade Committee Meeting for Restructuring of Syllabus under CTS (specially for Visually Impaired and other Disabled) on 01 October 2013 at Blind People's Association, Vastrapur, Ahmedabad, (Gujrat)

SL. NO.	NAME & DESIGNATION S/SHRI	REPRESENTING ORGANIZATION	REMARKS
1.	S. A. Pandav, Joint Director	CET, Gandhinagar, Gujarat	Chairman
2.	L.K Mukherjee, Dy Director	CSTARI Kolkatta	Member
3.	Dr. Bhushan Punani, Executive Director	Blind People's Association, Ahmedabad	Member
4.	Harish Panchal, Director (Trg.)	Blind People's Association, Ahmedabad	Member
5.	Nandini Rawal, Director (Project)	Blind People's Association, Ahmedabad	Member
6.	Tejal S. Lakhia, Hon. Superintendent	Blind People's Association, Ahmedabad	Member
7.	Mr. Ranchhod Soni	Higher Secondary School for The Blind Vastrapur, Ahmedabad	Member
8.	Mr. Mihir Das	JBS Academy, Ahmedabad	Member
9.	Mrudangi Trivedi	ABS Academy Pvt. Ltd., Ahmedabad	Member
10.	Jagruti V. Chaudhary	Blind People's Association, Ahmedabad	Member
11.	Hetal S. Ram Raliya	Blind People's Association, Ahmedabad	Member
12.	Dhingani Nalin H	Technical Institute, Ahmedabad	Member
13.	Kalyanee D. Dani	I.T.I., Ahmedabad	Member
14.	Hemal D. Punlit	I.T.I. Women, Thaltej, Ahmedabad	Member
15.	Vina Chawla	Emp. And Training H.O. Gandhinagar	Member
16.	Chanda Chawhan	I.T.I. Vijapur, Dist.-Meshana	Member
17.	Trivedi Jatin	Mahila ITI, Theltej	Member
18.	Smt. Harsha J. Shet	Mahila ITI, Theltej	Member
19.	Hansh G. Dave	Jasmine Beauty Care, Ahmedabad	Member
20.	Sipai Jakir J.	Blind People's Association, Ahmedabad	Member
21.	Jagdish jenabhai Parnar, Craft Instructor	Blind People's Association, Ahmedabad	Member
22.	Beenal Bharat Kumar Modi, Instructor	Blind People's Association, Ahmedabad	Member
23.	Vasant Kamdar, VI	ITI, Palana	Member
24.	Satish S. Charan, Asst. App. Advisor	CET, Gandhinagar, Gujarat	Member

GENERAL INFORMATION

1. Name of The Trade : **Desk Top Publishing Operator (DTPO)
(for visually impaired and other disabled)**
2. N.C.O Code No :
3. Duration of Craftsman Training : One Year (Two Semester)
4. Entry Qualification :
 - Passed class X examination of 10 + 2 pattern or an equivalent examination.
 - Candidate should be of low Vision/Orthopedically Disabled/Hearing impaired /other Disabled
5. Unit Strength : 10 Trainees
6. Space Norms : 3.5 sq. m. per trainee
7. Power Norms : 4.3 K.w
8. Qualification for Instructor :

Degree in Printing Technology with one year experience.
OR
Diploma in Printing technology with 2 years experience
OR
National Trade Certificate or National Apprenticeship
Certificate in Desk Top Publishing Operator (NCVT)
with 3 years experience,

Desirable;- Passed Principal of Teaching (POT) course from
any of DGE&T Institute

Note:- At least one Instructor must have Degree / Diploma in relevant trade.

Note: It will be responsibility of the Training Centre to impart training in plus curriculum (like Braille, Orientation & Mobility, Activities of Daily Living), total communication, use of assistive devices, adaptations for barrier free environment and technology.

Visually Impaired and other such Disabilities requiring support should be provided Writer (one standard below Trade Entry Level) during examination and given 30 Minutes more than the prescribed time.

SYLLABUS FOR THE TRADE OF DESK TOP PUBLISHING OPERATOR (FOR VISUALLY IMPAIRED AND OTHER DISABLED) UNDER CRAFTSMAN TRAINING SCHEME

DURATION: Six months

First Semester

Semester Code: DTP: SEM I

Week No.	TRADE PRACTICAL	TRADE THEORY
1-2	<p>Fundamentals:</p> <ul style="list-style-type: none"> * Introduction of personal computer & its applications. * Keyboard practice with emphasis on accuracy and speed. * Practice to store & retrieve Information's through storage media. * Use of System & Application Software. 	<p>Fundamental & Basics Of Computer Fundamentals:</p> <p>Evaluation of computers</p> <ul style="list-style-type: none"> * Introduction to computer, Hardware & Software * Computer application * Input Device: Keyboard, Mouse, OCR, OMR, MICR, Digitizer, scanner etc * Storage Media- Magnetic Disk, Hard Disk, Floppy Disk, CD, etc. * Output Devices: Hard copy devices & Soft copy devices. <p>Types of software</p> <ul style="list-style-type: none"> * System & Application Software. Concepts: Bits, Bytes, RAM, ROM, ASCII etc
3-4	<p>Operating Systems: DOS:</p> <ul style="list-style-type: none"> * Introduction & version * Learning & Practice of Disk Operating System (DOS) * Familiarization with various commands & tools. <p>MS WINDOWS:</p> <ul style="list-style-type: none"> * MS Windows and its use * File management, folder, maintenance wizard, setting through control panel. * Using essential accessories and removal * Installation of various of various software. 	<p>Operating Systems DOS :</p> <ul style="list-style-type: none"> * Introduction & version * Feminization with various commands tools <p>MS Windows :</p> <ul style="list-style-type: none"> * Introduction & version * Desk Top & its terminology * Setup using Control Panel * Windows Accessories * File management Folder Concept
5	<p>Internet:</p> <ul style="list-style-type: none"> * Use of Internet accessing/ browsing * Emailing Downloading Various services offered by internet 	<p>Networking Concept:</p> <ul style="list-style-type: none"> * LAN, MAN, WAN * File & Printer Sharing * Introduction & Use of Internet and Intranet.
6	<p>Industrial visit on awareness</p>	<p>Printing Processes :</p> <ul style="list-style-type: none"> * History of printing * Introduction

		<ul style="list-style-type: none"> * Types of printing * Comparative Analysis of various printing process.
7-10	<p>Understanding & File Manipulations in various Software a) MS Word</p> <ul style="list-style-type: none"> * Basics of Word Processing: * Text Selection. Opening Documents and Creating Documents Saving Documents/ Quitting Document cursor Control, Using the interface (menu toolbar). Editing text (copy, delete, move, etc) Finding and replacing text. Spell check feature/Auto correct feature. Grammar facility. Auto text. Character formatting. Page formatting. * Document Enhancement: <ul style="list-style-type: none"> * Adding borders and shading. Headers and footers, Setting up multiple columns, Sorting blocks, Margin and hyphenating. Documents... Data sources Merging Document's Using mail merge feature for labels and envelopes. Inserting Graphics, pictures and text. Using template: and wizards, text wrapping, printing documents. Proof corrections with appropriate proof reading marks. <p>Multilingual Software</p>	<p>DOCUMENT SETUP Conceptualization of Document</p> <p>Desk Top Publishing:</p> <ul style="list-style-type: none"> * Introduction, terminology. * Merit and demerit * Comparative analysis between DTP and traditional composing processes. * Costing estimating of DTP Unit * Word Processing through MS Word.
11-16	<p>b) Adobe Page Maker</p> <ul style="list-style-type: none"> * Basic concept: Creating and opening publication, using the tool box, working with palettes, text and graphics, starting a publication from the template, saving and closing a publication. * Tutorial - positioning ruler guides, typing text, formatting graphics. Creating columns, creating styles, changing type style and alignment. Rotating and moving of text block and graphics, placing text file, setting tab, indents, and leaders copying graphics between publication, positioning and resizing the logo. * Constructing a publication :-setting up pages, changing 	<p>Typography</p> <ul style="list-style-type: none"> * Types(Fonts), Type sizes, Different families * Point system and other system of measuring * Casting off, typography, proof reading, familiarization with symbols/proof reading marks used in marking copy, typescript for press * Determining line measure and depth and margins, House of style * Page composition through Page Maker
	<p>document setup, using master pages, choosing a measurement system and setting up rulers, adjusting layout, numbering pages, rearranging pages</p>	

	<p>creating running header and footers importing text, threading text blocks, balancing columns, edit story. Customizing the dictionary, hyphenation, leading frames layers, locking, objects wrapping text around graphics cropping a graphic using libraries assembling publication into a book, indexing a publication , creating table of contents , applying color, edit color creating custom color, color libraries table editor, importing, linking and exporting a graphic. OLE (object linking and embedding).TIFF image. PDF HTML formats printing of publication proof corrections with appropriate proof reading marks.</p>	
17-24	<p>(c) Quark Express:</p> <ul style="list-style-type: none"> * Specifying Document setting * Creating and opening publications, use of palates & Control * Typing & text manipulations * Positioning Resizing. Scaling and stacking typing text. Formatting graphics. Creating columns. Creating style. Changing type style and alignment. Rotating and moving of text block and graphics. Placing text file. Setting tab. indents. Leaders. Copying graphic between publications. Viewing page in appropriate format. * Master pages. Master items & spreads * Tables manipulations * Box and line manipulations. * Drawing merging & reshaping items. * Web document Feature. * Setting up pages, changing document setup. Choosing a measurement system. Adjusting layout. Numbering pages. Rearranging pages, Continued lines & linked text chains importing text. Creating columns. Editing, 	<p>Composing Process:</p> <ul style="list-style-type: none"> * Introduction of various methods of composing. * Different composing processes and their development Suitability for job merits and demerits. * Brief description of different composing machines. * Output device :- Inkjet printer, laser printer, Image setters, computer to plate, computer to printing machine Light sensitive materials used in output device Film /Bromide types of all used image setter * Page composing through Quark Express *
	<ul style="list-style-type: none"> * customizing the dictionary, hyphenation, leading Long documents. Drop caps. Special Characters, Spell Check. Anchoring items to flow with text * Grouping & locking object. Wrapping text around graphics. Using libraries. Indexing a publication creating table of contents applying color. Edit colors 	

	<p>creating custom color libraries.</p> <ul style="list-style-type: none"> * Halftone separating & Trapping. * importing linking and exposing a graphic and document. OLE (object linking and embedding). EPS. PDI. HTML. Formats. * For outputs. Printing of publication proof corrections with appropriate proof reading marks. Use of In Design Software 	
25	Project Work / Industrial Visit(Optional)	
26	Examination	

SYLLABUS FOR THE TRADE OF DESK TOP PUBLISHING OPERATOR (FOR VISUALLY IMPAIRED AND OTHER DISABLED) UNDER CRAFTSMAN TRAINING SCHEME

DURATION: Six months

Second Semester

Semester Code: DTP: SEM II

Week No.	Trade Practical	Trade Theory
1-2	<p>Scanning</p> <ul style="list-style-type: none"> * Use of scanner for picking up illustration line drawings she has etc. * Setting of Scanner * Selection paper line screen per inch. * Selection of highlights. Middle tone and shadow are. Contrast * Reading of color strip and do color correction * Making of OCR. 	<p>DOCUMENT DESIGNING & ADVANCE FEATURES</p> <p>Graphic reproduction</p> <ul style="list-style-type: none"> * Tonal value. Tonal gradation. * Continuous tone. Half tone, Moire pattern, * Highlight, Middle Tone, Shadow areas contrast & details <p>Scanning</p> <ul style="list-style-type: none"> * Principle of scanning * Types of scanners (Flatbed & Drum) and its use * Resolutions, DPI.LPI * Graphic drawings inputs of pictures, sketches Photo editing Software. * Preparation of OCR.
3-6	<p>(A) Adobe Photoshop</p> <ul style="list-style-type: none"> * Image Fundamentals: - Digital image pixel. Resolution. DPL, raster irrage/bitmaps. Vector image/graphics. * Various File Format:- Bitmap, jpeg, PSD., PDD,. TIFF,GIF. * Understanding Various Tools:- Marquee- Rectangular/Elliptical. Move Lasso, Polygonal Lasso Magnetic Lasso, Magic wand. Crop Air brush, Paint brush, Pencil, Rubber Stamp, Pattern stamp, Erase, Paint bucket, Direct selection, Path component selection , Pen custom shape, eye dropper, Hand Zoom. * Understanding various Palettes:- Navigator, info, Color, 	<p align="center">—Do—</p>
	<ul style="list-style-type: none"> * Swatches Style History, Layers. Paths, Character, Paragraph, 	

	<p>Foreground Colors. Background colors. Default colors.</p> <ul style="list-style-type: none"> * Switch colors.. * Details about Status Bar. Option Bar. * Edit Image in Standard mode. Quick Mask Mode. * Various Image Display Options:- Standard Screen mode. Full Screen Mode with Menu Bar, Full Screen mode. * Various Edit Commands:- Transform Preferences, Define Brush etc. * Various Image Commands Inverse. Adjust, Extract, Liquefy etc. * Mode RGB /CYMK/LAB /Grayscale. Adjust Brightness/ Contrast. Hue/ Saturations, desaturate, Replace Colours, invert, Variations, Canvas size, Rotate canvas, crop, Trim- Various Layer Commands. Rearranging Layers, Lock Layers, Merge down, Merge. * Visible, Flatten Image. Working with layers set. * Various Select commands * Various Filter Effects, Render 3D Transform, Lens Flare. Lightning Effects. Motion Blur. Radial Blur... * Various View Commands. * Print Option. <p>Industrial visit of graphics design studios / Add agency / News Paper / Prepress Bureau and Printing Press</p>	
7-10	<p>(B) Corel Draw: -</p> <ul style="list-style-type: none"> * introduction: - Creating. Opening drawing. Setting up the drawing page. Using the rulers. Grid. And guidelines. Viewing document. * Drawing and Shaping Objects:- Drawing. Moving & Shaping Object, drawing lines and curves, dimensions line. * Working with Style & Templates. 	<p>Graphic design:</p> <ul style="list-style-type: none"> * Principle of page design * Elements of design * Color-Define color, type of colors, impact of colors, color wheel, achieving of different colors through appropriate color percentage. Selection of types (Fonts) for text/Display work.

	Organizing Objects:-Arranging & Changing the order of objects.	* Preparation of Graphics
	<ul style="list-style-type: none"> * Grouping, Ungrouping locking and unlocking objects. * Using and setting layers * Aligning & editing objects data. Working with pattern and texture fills. Applying and editing line ending shapes, splitting and erasing portions of objects positioning moving stretching and rotating objects. * Working with multiple on screen color palettes * Adding graphics symbols and specials characters. Editing. * Formatting text and paragraph. Hyphenating text. Linking paragraph text frames, using spell checker and grammar, using thesaurus. * Creating and editing blends. Envelopes * Creating and modifying vector and bitmap. * Extrusions. Creating drop shadows. Creating and editing transparencies, contoured. * Objects, Working with linked bitmap, cropping, coloring and converting bitmaps. * Applying special effects to bitmaps by 3D effects, blur effects, contour effects * Creating documents for various formats, using layout. Previewing 	<ul style="list-style-type: none"> * Creation of rough sketches. * Color Selections * Font & Image selection. * Graphic design using Corel draw.
	<ul style="list-style-type: none"> sizing and positioning a print job. * Creating color separations, working with halftone and bitmap screens * Importing and exporting files. OLE 	
	<ul style="list-style-type: none"> (Object linking and embedding). * Printing of Document/Design. 	
11-15	<ul style="list-style-type: none"> (c) Adobe in Design: * Introductions Creating opening Saving closing publications * Setting up the page * Using the rulers, grid. And guidelines, viewing document * Drawing & Shaping, Arranging 	<ul style="list-style-type: none"> Page make-up * Principles of page make of Books. * Board Room/Seminar Presentation material preparations.

	<p>Objects, Grouping / Ungrouping Locking Unlocking</p> <ul style="list-style-type: none"> * Layering * Editing formatting Text, formatting Paragraph, linking * Arranging Drawing Editing Objects, shaping, Rotating, stretching. Positioning * Modifying various Images, Vector Bitmap Images, working with Link Bitmap Image, Converting Bitmaps, Applying special effects. * Importing and exporting Files, Object Linking & Embedding. Creating documents for various formats * Creating colors * Working with halftone images, Resizing. Positioning of image Color corrections, RGB mode. CYMK mode. Converting various formats. * Printing document/design. 	<ul style="list-style-type: none"> * Copy preparation and copy fitting procedures. * Imposition schemes. <p>Paper</p> <ul style="list-style-type: none"> * Introduction and preparation * Various paper sizes (Conventional and metric) and their uses. * Various paper calculations. * Page making through Adobe In Design
16-17	<p>Printer:-</p> <ul style="list-style-type: none"> * Installation of New Printer by printer setup. * Use of Inkjet/DeskJet/Laser Printer for taking out copies * Color calibration of printer with monitor. 	<p>FILE & PRINT MANAGEMENT</p> <p>Printing:</p> <ul style="list-style-type: none"> * Various Types of Printers and their uses. * Merit & Demerits * File format supported for printing Familiar with various file format EPS, PDF, etc. * Using ICQ based color management.
18-19	<p>Bilingual Software</p> <ul style="list-style-type: none"> * Setting of Bilingual (Hindi / Any Regional language) matter * Solid and Tabular setting with any multi script language software i.e. ileap Office / ISM publisher 	<p>Digital Printing</p> <ul style="list-style-type: none"> * Type of digital printing. * Uses in commercial operations. * Inkjet bubble jet /thermal printer/laser printer used for small and big formats * Page composing through Regional Language Software.
20-21	<p>Project Work and Binding:</p> <ul style="list-style-type: none"> * Project Work & Binding the pages in form of Book using spiral/spice binding machine. 	<p>Project Work and Binding:</p> <ul style="list-style-type: none"> * Preparation of Project Work for DTP unit. * Various Binding techniques.
22-23	<p>Design Project:</p> <ul style="list-style-type: none"> * Practice of Graphic Design with combination of text and illustration in proper layout for preparing Visiting Cards, Letter Head, Book/Magazine Covers, Charts etc. 	<p>Costing & Estimating:</p> <ul style="list-style-type: none"> * Costing and estimating of various jobs * Preparation of masters/paper master, assister (sheet) P S . Plates. Use of masters for taking

		out proofs.
24	Industrial visits. Various printing processes and related technology, various composing process and related machines, Inwards works and its costing. Estimating and various Binding techniques. Industrial Visit / On job training	Industrial Visit.
25	Revision	
26	Examination	

List of Tools and Equipments (For a unit of 10 trainees)
For the trade of **DESK TOP PUBLISHING OPERATOR** under CTS

Sl.No.	Name of the items	Quantity
1	DESKTOP/WORKSTATION : 2 ^{na} Generation i3 Processor or Equivalent and above with major minimum features as below: 1) 32/64 Bit Processor (3.06 GHz or Higher,4 MB 4-Core) or Higher. 2) Network Card : Integrated Gigabit Ethernets 0/100/1000). 3) RAM : 2 GB/ 4 GB DDR3 or Higher. 4) 320 GB / 500 GB HDD or Higher. 5) 19" TFT Monitor 6) DVD Writer 7) PS2 / USB Key Board, USB/Optical Mouse with latest Licensed of Operating System and anti virus/ OEM Pack(Preloaded). 8) Professional/Ultimate Edition with Internet Facility.	5 nos.+ 1 no (Laptop for faculty)
2	Color Inkjet Printer / DeskJet Printer 1200*600PI Black & Color, Paper size A4, 2 MB Memory, Printing speed 4 to 6 page per minute. (Note : Model should be with latest configuration.)	1 No.
3	Laser printer with 1 GB RAM and Post Script emulation cartridge. Resolution 2400 DPI or higher. (Note: Model should be with latest configuration.)	1 No.
4	Page scanner flat bed type scanner (Reflection & Transmission) with standard accessories 2400 DPI or higher with OCR software (Note: Model should be with latest configuration.)	1 No.
5	Software (Latest version) I) Adobe Publishing Collection for windows. ii) Ms office iii) Corel Draw v) iLeap office / Any Bi-lingual software vi) Quark Express for Windows. vi) Anti-virus Software. (Compatible with Operating System with Upgradeable license) vii) Adobe In Design	1 set Each.
6	Networking (LAN) All the computer system should be connected in LAN. The printer connected to any of the paces in the LAN should be shared within LAN.	As per requirement
7	Internet connectivity Minimum 2 MBPS or Higher	1 No.
8	3 KVA or higher line interactive UPS with 20 minute battery backup	2 Nos.
	B. Equipments	
9	Sprial/Spico Binding Machine	1 No.

10	Air conditioner 1.5 tons with Voltage Stabilizer	2 Nos.
C	C. Furniture items	
11	Chairs for Computer.	10 Nos.
12	Table with sunmica/Novapan top for computers, printers and other machines.	10 Nos.
13	Steel cupboard.	3 Nos. (2 for Faculties) (1 for stationery items)
14	Storable cabinet - back up/ software	1 No.
15	Book Case.	1 No.
16	Shoe rack (Pigeon Hole Type)	02 nos.
17	Instructor Chair (Lab & Classroom)	2 Nos. (1 for each Faculty) 1 No. (for Classroom)
18	Instructor table with sunmica top (Lab & Classroom)	2 Nos. (1 for each Faculty) 1 No. (for Classroom)
19	Single Seated Desk/Dual Desk	10 Nos./5 Nos.
20	Student lockers (steel) with 8 compartments	2 Nos.
	D. Tools & Miscellaneous items	
21	Em scales, steel rules, scissors, Eye glass 10X.	5 Nos. (Each)
22	Paper cutter (standard size)	1 No.
23	Tape holder	2 Nos.
24	Reference Book for each software.	5 Nos.

Note : Lab should be dust proof and having Electrical wiring with proper earthing

A list of Latest Hardware for the Blind and Low Vision is given below:

- **Computers Access**

- JAWS Talking Software for computers - *Also Supports Hindi and Marathi languages*
- TypeAbility Talking Keyboard Learning Software
- Talking Typing Software for young learners
- MAGic Screen Magnification Software
- MAGic Large Print Keyboard

- **Talking Portable Notetaker**

- **STAND ALONE TEXT READERS**
- **INSTANT TEXT READERS/ MAGNIFIERS - COMPUTER SUPPORTED**
- **COMPUTER SUPPORTED OCR SCANNING & READING SOFTWARE**
- **DAISY Talking Book Recorders, Players & Software**

- **Educational Aids & Devices**

- ANGEL PRO Low Cost Talking All In One - Daisy Reader/ E-Book Reader/ MP3 Player/ Radio/ Voice Recorder

- Talking Dictionary
- Talking Scientific Calculator

- **Mathematics Educational Software**

- **INDEX V4 Braille Printers/ Embossers & Braille Presses**
- **Tactile Graphics Production**