SYLLABUS
FOR THE TRADE OF

COMPUTER AIDED EMBROIDERY AND
NEEDLE WORKER

Designed

2005

Issued by

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Salt Lake City
Kolkata-91

List of Members present in the Trade Committee Meeting for the Trade of "Computer Aided Embroidery & Needle Work" under CTS

Sl. No.	Name	Organization	
	S / Sri		
1.	Rsenthil Kumar	JD T/HOO, CSTARI, Kolkata	Chairman
2.	Reenit Singh	National Instt. of Fashion Technology Kolkata	Member
3.	Balwant Singh	OSCAR Apprral, Kokkata	Member
4.	Dipak Chakraborty	OSCAR Apperal, Kolkata	Member
5.	Smt Lopamudra Ghosh	A T.D. C. Salt Lake. Kolkata	Member
6.	Smt. Radha Bag	RVTI, Kilkata	Member
7.	Smt. Purnima Mondal	Swarupa Entreprise, Kolkata	Member
8.	A. Chakraborty	ADT.CSTARI, Kolkata	Member
9.	S.B.Sardar	T.O.. CSTARI, Kolkata	Member
11.	P. K. Kolay	T.O., CSTARI, Kolkata	Member
19.	S.B.Sardar	-do-	Member

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GENERAL INFORMATION

1.   Name of the Trade   :   Computer Aided Embroidery & Needle Worker

2.   N.C.O. Code No.   :

3.   Duration   :   6 months

4.   Entry Qualification   :   Passed 10th Class Examination + Basic Computer Knowledge.

SYLLABUS FOR THE TRADE OF
COMPUTER AIDED EMBROIDERY AND NEEDLE WORKER

Week No.	Practical	Theory
1.	To explain basic simple computer embroidery machine application /computer operating system and application. Safety precaution at work and its simple needle computer application. Handing. operation of single needle computer embroidery machine tools and equipments. To explain built in computer embroidering assisted in all parts of sewing and embroidery needle machine programming.	Instruction in safety precaution for single needle computer embroidery application in the trade. Introduction & explain of single needle computer accessories. Single needle computer embroidery machine (Tool kit. Bobbin Winder. single embroidery machine manual
2.	Machine Assistant Instant information about machine how-toes. How to thread How to wind a bobbin How to set the machine to embroidery Complete sew book with the most important sewing technique described in complete detail from fabrics and stabilizers to feed & needles. Even includes how to sew in a zipper.	Basic stitches of single needle computer embroidery. their applications . Different types and characteristics creative on screen customizing and functions.
3.	Embroidery Assistant Demonstration about how to hoop . Which stabilizers to use. Threads & what machine accessories to use. Pop-up direct help. Demonstration of pop-up text to explain each icon. Practice of different type running stitches / back stitch , stem stitches and different forms in single needle	Pop-up text to explain each icon How to make different type running stitch/back stitch. stem stitch in single Needle Computer Embroidery Machine.

4.	embroidery machine .	Instruction about optional automatic trimmer
	Practice on no slippage of fabric. perfect tending , variety of stitches in computer aided embroidery machine. Built in PC file system for easy administration of your patterns, pattern sequences , personal menus and direction including copying, Renaming, deleting, altering	Computer embroidery machine tool & equipments. Computer embroidery machine, parts and their function. Repeating computer embroidery machine tools & equipments. Different types of fabrics and their characteristics.
	How to prepare computer embroidery logo /design preparation in the computer monitor.	Identification of fabrics
5	Practicing & implementation of running stitches , long and short in computer Embroidery. Computer application of different stitches through embroidery machines	Application of running stitches, long and short in computer Embroidery. Principle of practice.
	In the bed sheets and pillow cover set etc. Making of scallops and small design in the corner by Computer embroidery m/c .	
6	Creative on screen customizing: Combined maxi- stitches, 9mm stitches, alphabet or design from creative cards in the multi –color touch screen . Create sequences using the maxi-stitch, 9 mm stitches and alphabet. Repeating computer embroidery machine application of Herringbone stitch, Feather stitch, Fish & Bone stitch & Button Hole stitch design.	Related Theory
	Making of eyelet work on petty coat By simple computer embroidery machine. Cut work and open work on table cover . Simple fancy embroidery by computer embroidery machine.(Baby top shirt set).	To stitch about Dual Card Drives: allows the mixing of designs easily and quickly using two creative cards at one time function.
7.	Application of different type of round, satin and shade work by computer embroidery m/c (cushion	Related theory

	cover) How to select color for fabric matching identification through monitor transferring through disks. Multi-color touch screen How to make beautiful full color touch screen makes it easy to see and choices from selecting the stitch to edit particular designs. How to make touch on the multi-color touch screen makes by selection	
8	Practice of the said stitches through computer. Enlargement and reduction of motive design. Drawing of different types of design. Scanning of different types of design. Application of till cord bead work in hair bard work by simple computer embroidery machine. Electronic Knee Lift: Describe the Electronic Knee Lift .how to operate in the single needle computer embroidery m/c. How to raise and lower the presser foot command. How allows the hands to be free for guiding and rectangular pad can be adjusted to the knee height. Bobbin winder with separate motor: To demonstrate the wind a bobbin's function in the winding motor.	Related Theory
9.	Preparation of handkerchief with various applications. of English smoking in sofa cover/tecosy cover set, tray cover set etc. Application of china smoking in cushion cover, button stitch. stain and stem stitch through computer Preparation of handkerchief with the application of long & short stitch and other stitches. Un datable: How to update single needle computer embroidery through internet.	Sensormatic button holes - stitches Function of built- in machine sensors produces b ttonholes in every time.

10.	Different types of stitch practice on shawl, Japani stitch, String Stitch, rose Stitch, Gujrati Stitch, Kantha Stitch, Golden/mirror Stitch. Through computer screen colour mixing and shade work characteristics, techniques, different type of application. Application work- its type techniques.	Presser foot position: Extra high to accommodate thicker fabrics. High is standard presser foot position. Medium for daring, hoop. Embroidery, free motion quiting with tension Engaged. Low is perfect for quick pivoting. Down for normal sewing. Electronics needle piercing power: Stitch by attached controlled at any speed with full piercing power at any speed. Sew through multiple layer of heavy denim.
11.	Different types of edges of each handkerchief like hem stitch, scallops, lace and 4-rolled hem. Application of color shade work, stain stitches and French knot in pillow cover. Personalized stitch selection: Choose stitch selection by number, category picture, personalized menu or creative and whatever is easiest for job. How can over-ride and choose to store as per job requirement.	Repeating General information about colors, designs ,and lay-outs scheme work ,its kind and use in the computer color lay-outs.
12.	Decorative tablemats through kantha stitch, Gujrati stitch, cross-stitch. Different types of shade work, shade card. Technique of using colour scheme in computer screen. Computer embroidery machine tension for the use of different embroidery stitches and work Computer embroidery spot/group various design preparation. Practice on Touch Tones. Practice on Built Threaded Snips.	Last pattern recall. Automatic Tapering. Embroidery threads and their classification. Related theory.
13.	Working on external feed dog leaver. Practice on pattern. Making of various design using graph sheet.	Computer monitor colour work- its kind and uses/application. Computer monitor colour shadow work and chickon work in saree. Sindhi and mirror work in ladies blouse etc.

14.	Practice on programmable scam length for straight stitch. Practice in needle stop up/down. Practice on light button function. Practice on Tie-oil lock stitching.	General information about Shawal and how to make different design stitch on Shawal through computer. Different types of Tunision crochet, general tunision crochet, knitted tunision stitch.
15.	Computer embroidery m/c applications of mirror work in fancy bag, shopping bag, cushion cover etc. Slide on embroidery unit with sewing away arm.	Two colour Tunisian. Two colour mukbir Tunisian stitch. What are Tunisian crochet and its uses General rule of Tunisian crotchet. Computer embroidery machine- it's different types and uses. Computer embroidery machine faults and their remedies.
16.	Practice on twine needle adjustment. Practice on four directional program Slide-on embroidery unit with swing away arm. Gear drive: No slippage of hoops. Rectangular large hoop plus round hoop.	Related Theory.
17.	Practice on sixteen way feed stitch program Practice on Dual voltage machine Practice on slide-on hoops. Practice on Automatic embroidery hoop detection.	Related The ry.
18	Practice on Instant access letter selection Practice on Reverse-Instant or programmable. Practice on Rotation: Rotate design in 5-degree increments by simple touching the button. Practice on Lettering:	Related Theory
19	Instant access for monogramming, writing names and sentences. Each letter can be sewn in several different positions. How can rotate each letter individually within one sequence. Practice on Automatic machine stop Practice on Sew slow button Color screen viewing: How the pattern is drawn to scale	Related Theory Related Theory

	inside the available hoop area, how the screen will show the percentage of actual size shown 8 Direction moving: How to move design in 8 different directions. Very fast positioning	Related Theory
20	Practice on Automatic integrated needle threaded: Quick and easy needle threading. Low bobbin warning light: Gives you a warning before your bobbin runs out. Design mirror: Lateral and axial mirror image any design that fits how selected hoop size	Related Theory
21	Framing: Trace the outer perimeter of the design to see just where it will be positioned in the hoop prior to embroidering. Small free arm;:- Easy to get in small circular areas such are arm holes, sleeve cuffs, neck lines & hems. Adjustable stitch density; Adjust stitch density to desired setting from point to up to point 9 mm. These allows for easy adjustment to accommodate a wide variety of thread weights & types. Step by step positioning:-	Related Theory
22.	To explain, how to ability to move the pattern design step by step for exact positioning within the hoop. Placement Information Pattern Elongation:: Increase or decrease the overall size of decorative satin stitch patterns without losing density. Color stops: How to automatically stops for change / sew color by color in the order of choose. On screen editing: How to edit & design combination.	Related Theory Related Theory

23	Mono color: Sew a complete design in one color. Vertical hand horizontal pattern mirror: Mirror stitch programs end to end or side to side. New optional hoop: Around hoop with an embroidery area of 80mm x 80mm. Precise built- in balance program: Balance each stitch program precisely to each fabric type. Stitch chart on flip-up LID. Flip up the lid to easily view stitches.	Related Theory Marketing and Management.
24	Creative Software: To explain additional computer software option that allows how to change colors, rotate, combine motifs with letters and shapes plus more exciting features how to expand design possibilities.	Revision & Test
25	Safety / security lock- out Store your own code to prevent usage of machine without your knowledge. Screen Control knob: The construct of the multi-color touch screen may be adjusted to suit the user. Exact stitch programming: How can move directly to the spot, where a thread has broken to begin again, stitch point by stitch point advancement or back up.	
26	Revision & Test	

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

Sl. No	Description & specification	Nos.
1.	a) Model No. BDMN 12 – 12 Needle Multicolor OR b) The Super Economy Model – BDSN	1 no

Power	: 230 V/50 Hz Single Phase	
Total Volume	: H-1415 mm. B-690 mm, 1 – 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 Stitches per minute*	
Total Weight	: 180 kg.	
Frame Area Maximum	: 10" x 21"/254 mm x 530 mm	

Sl. No	Description & specification	Nos.
2.	Scissors (Small size 25 cm)	2 nos.
3.	Pinking Scissors	1 no.
4.	Instructor's table	1 no.
5.	Steel Almirahs	1 nos.
6.	Chairs with arms with adjustable back & seat	2 nos.
7.	Measuring tapes	2 no.
8.	L. Square	1 no.
9.	Geometrical Instrument boxes	1 no.
10.	Sets square plastic full size	1 nos.
11.	Hangers	6 nos.
12.	Audio Visual equipment room (for Theory class room) Over head projector with Trolley & screen TV/VCP with trolley	1 no.
13.	Slide projector	1 no.

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