SEWING TECHNOLOGY

NSQF LEVEL – 3.5

SECTOR- APPAREL

COMPETENCY BASED CURRICULUM

CRAFT INSTRUCTOR TRAINING SCHEME (CITS)

GOVERNMENT OF INDIA
Ministry of Skill Development & Entrepreneurship
Directorate General of Training
CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE
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SEWING TECHNOLOGY (CITS)

(Non-Engineering Trade)

SECTOR – APPAREL

(Revised in 2024)

Version 2.0

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NSQF LEVEL – 3.5

CONTENTS

1. COURSE OVERVIEW

The Craft Instructor Training Scheme is operational since inception of the Craftsmen Training Scheme. The first Craft Instructors' Training Institute was established in 1948. Subsequently, 6 more institutes namely, Central Training Institute for Instructors (now called as National Skill Training Institute (NSTI)), NSTI at Ludhiana, Kanpur, Howrah, Mumbai, Chennai and Hyderabad were established in 1960's by DGT. Since then the CITS course is successfully running in all the NSTIs across India as well as in DGT affiliated institutes viz. Institutes for Training of Trainers (I Tot). This is a competency based course of one-year duration. "Sewing Technology" CITS trade is applicable for Instructors of "Sewing Technology "Trade.

The main objective of Craft Instructor training programme is to enable Instructors explore different aspects of the techniques in pedagogy and transferring of hands-on skills so as to develop a pool of skilled manpower for industries, also leading to their career growth & benefiting society at large. Thus promoting a holistic learning experience where trainee acquires specialized knowledge, skills & develops attitude towards learning & contributing in vocational training ecosystem.

This course also enables the instructors to develop instructional skills for mentoring the trainees, engaging all trainees in learning process and managing effective utilization of resources. It emphasizes on the importance of collaborative learning & innovative ways of doing things. All trainees will be able to understand and interpret the course content in right perspective, so that they are engaged in & empowered by their learning experiences and above all, ensure quality delivery.

2. TRAINING SYSTEM

2.1 GENERAL

CITS courses are delivered in National Skill Training Institutes (NSTIs) & DGT affiliated institutes viz., Institutes for Training of Trainers (I Tot). For detailed guidelines regarding admission on CITS, instructions issued by DGT from time to time are to be observed. Further complete admission details are made available on NIMI web portal http://www.nimionlineadmission.in. The course is of one-year duration. It consists of Trade Technology (Professional skills and Professional knowledge), Training Methodology and Engineering Technology/ Soft Skills. After successful completion of the training programme, the trainees appear in All India Trade Test for Craft Instructor. The successful trainee is awarded NCIC certificate by DGT.

2.2 COURSE STRUCTURE

Table below depicts the distribution of training hours across various course elements during a period of one year:

S No.	Course Element	Notional Training Hours
1.	**Trade Technology**	
	Professional Skill (Trade Practical)	480
	Professional Knowledge (Trade Theory)	270
2.	**Training Methodology**	
	TM Practical	270
	TM Theory	180
	Total	**1200**

Every year 150 hours of mandatory OJT (On the Job Training) at nearby industry, wherever not available then group project is mandatory.

On the Job Training (OJT)/ Group Project	150

Trainees can also opt for of optional courses of 240 hours' duration.

2.3 PROGRESSION PATHWAYS

- Can join as an Instructor in vocational training Institute/ technical Institute.
- Can join as a supervisor in Industries.

2.4 ASSESSMENT & CERTIFICATION

The CITS trainee will be assessed for his/her Instructional skills, knowledge and attitude towards learning throughout the course span and also at the end of the training program.

a) The Continuous Assessment (Internal) during the period of training will be done by **Formative Assessment Method** to test competency of instructor with respect to assessment criteria set against each learning outcomes. The training institute has to maintain an individual trainee portfolio in line with assessment guidelines. The marks of internal assessment will be as per the formative assessment template provided on www.bharatskills.gov.in.

b) The **Final Assessment** will be in the form of **Summative Assessment Method**. The All India Trade Test for awarding National Craft Instructor Certificate will be conducted by DGT at the end of the year as per the guidelines of DGT. The learning outcome and assessment criteria will be the basis for setting question papers for final assessment. The external examiner during final examination will also check the individual trainee's profile as detailed in assessment guideline before giving marks for practical examination.

2.4.1 PASS CRITERIA

Allotment of Marks among the subjects for Examination
The minimum pass percent for Trade Practical, TM Practical, Soft Skill Practical Examinations and Formative assessment is 60% & for all other subjects is 40%. There will be no Grace marks.

2.4.2 ASSESSMENT GUIDELINE

Appropriate arrangements should be made to ensure that there will be no artificial barriers to assessment. The nature of special needs should be taken into account while undertaking the assessment. While assessing, the major factors to be considered are approaches to generate solutions to specific problems by involving standard/non-standard practices.

Due consideration should also be given while assessing for teamwork, avoidance/reduction of scrap/wastage and disposal of scrap/waste as per procedure, behavioral attitude, sensitivity to the environment and regularity in training. The sensitivity towards OSHE and self-learning attitude are to be considered while assessing competency.

Assessment will be evidence based comprising of the following:

- Demonstration of Instructional Skills (Lesson Plan, Demonstration Plan)
- Record book/daily diary
- Assessment Sheet
- Progress chart

- Video Recording
- Attendance and punctuality
- Viva-voce
- Practical work done/Models
- Assignments
- Project work

Evidences and records of internal (Formative) assessments are to be preserved until forthcoming yearly examination for audit and verification by examining body. The following marking pattern to be adopted while assessing:

Performance Level	Evidence
(a) Weightage in the range of 60%-75% to be allotted during assessment	
For performance in this grade, the candidate should be well versed with instructional design, implement learning programme and assess learners which demonstrates attainment of an *acceptable standard* of crafts instructorship with *occasional* guidance and engage students by demonstrating good attributes of a trainer.	- Demonstration of *fairly good* skill to establish a rapport with audience, presentation in orderly manner and establish as an expert in the field. - Average engagement of students for learning and achievement of goals while undertaking the training on specific topic. - A fairly good level of competency in expressing each concept in terms the student can relate, draw analogy and summarize the entire lesson. - Occasional support in imparting effective training.
(b) Weightage in the range of 75%-90% to be allotted during assessment	
For performance in this grade, the candidate should be well versed with instructional design, implement learning programme and assess learners which demonstrates attainment of a *reasonable standard* of crafts instructorship with *little guidance* and engage students by demonstrating good attributes of a trainer.	- Demonstration of *good* skill to establish a rapport with audience, presentation in orderly manner and establish as an expert in the field. - Above average engagement of students for learning and achievement of goals while undertaking the training on specific topic. - A *good* level of competency in expressing each concept in terms the student can relate, draw analogy and summarize the entire lesson. - Little support in imparting effective

	training.
© Weightage in the range of more than 90% to be allotted during assessment	
For performance in this grade, the candidate should be well versed with instructional design, implement learning programme and assess learners which demonstrates attainment of a **high standard** of crafts instructorship with **minimal or no support** and engage students by demonstrating good attributes of a trainer.	• Demonstration of **high** skill level to establish a rapport with audience, presentation in orderly manner and establish as an expert in the field. • Good engagement of students for learning and achievement of goals while undertaking the training on specific topic. • A **high** level of competency in expressing each concept in terms the student can relate, draw analogy and summarize the entire lesson. • Minimal or no support in imparting effective training.

3. GENERAL INFORMATION

Name of the Trade	**Sewing Technology (CITS)**
Trade code	DGT/4011
NCO – 2015	3122.3500, 2356.0100
NOS Covered	AMH/N9419, AMH/N9420, AMH/N9421, AMH/N9411, AMH/N9422, AMH/9413, AMH/N9412, MEP/N9443
NSQF Level	Level – 3.5
Duration of Craft Instructor Training	One Year
Unit Strength (No. Of Student)	25
Entry Qualification	Degree in Costume Designing & Dress Making /Fashion Designing/ Fashion Technology/ Apparel Technology / Garment Fabrication Technology from recognized Board/ University. OR 3 years Diploma in Costume Designing & Dress Making /Fashion Designing/Fashion Technology/ Apparel Technology / Garment Fabrication Technology after class 10th from recognized board/ University. OR Ex-serviceman from Indian Armed forces with 15 years of service in related field as per equivalency through DGR. OR 1 year NTC/NAC passed in the trade of Sewing Technology or related trades (Candidate must have passed 10th Class).
Minimum Age	16 YEARS AS ON FIRST DAY OF ACADEMIC SESSION.
Space Norms	120 SQ. M
Power Norms	8 KW
Instructor's Qualification for	
1. **Sewing Technology (CITS) Trade**	B.Voc/Degree in Costume Designing & Dress Making /Fashion Designing/Fashion Technology/ Apparel Technology / Garment Fabrication Technologyfrom AICTE/ UGC recognized Board / University with two years' experience in relevant field. **OR** Diploma (Minimum 02 Years) in Costume Designing & Dress Making /Fashion Designing/Fashion Technology/ Apparel Technology/ Garment Fabrication Technologyfrom recognized Board/ University with five years' experience in relevant field. **OR**

	Ex-serviceman from Indian Armed forces with 15 years of service in related field as per equivalency through DGR. Candidate should have undergone methods of institution course or minimum 02 years of experience in technical training institute of Indian Armed forces.	
	OR	
	NTC/ NAC passed in Sewing Technology trade with seven years' experience in relevant field.	
	Essential Qualification:	
	Relevant National Craft Instructor Certificate (NCIC) in Sewing Technology trade, in any of the variants under DGT.	
2. Soft Skills	MBA/ BBA / Any Graduate/ Diploma in any discipline from AICTE/ UGC recognized College/ university with Three years' experience and short term ToT Course in Soft Skills from DGT institutes.	
	(Must have studied English/ Communication Skills and Basic Computer at 12th / Diploma level and above).	
3. Training Methodology	B.Voc/ Degree in any discipline from AICTE/ UGC recognized College/ university with two years' experience in training/ teaching field.	
	OR	
	Diploma in any discipline from recognized board / University with five years' experience in training/teaching field.	
	OR	
	NTC/ NAC passed in any trade with seven years' experience in training/ teaching field.	
	Essential Qualification:	
	National Craft Instructor Certificate (NCIC) in any of the variants under DGT / B.Ed /ToT from NITTTR or equivalent.	
4. Minimum Age for Instructor	21 Years	

4. JOB ROLE

Brief Description of Job Roles:

Supervisors and Foremen, Tailoring and Dress Making; Supervisor and Foreman, Tailoring and Dress Making supervises and guides workers engaged in production of readymade garments and ensures standard fittings and finish at reasonable cost. Guides workers in making patterns for cutting, adjusting electrical and special purpose sewing machines, setting, joining and sewing parts, button matching, etc., and ensures standard fittings and finish. Checks work and directs or makes alterations where necessary and keeps machines and equipment in working order. Maintains production register and delivers goods against receipts. May copy or develop new designs to boost sale. May train new entrants. May be designated according to section or work supervised. (Excluded are Garment Designers and Cutters described elsewhere).

Manual Training Teacher/Craft Instructor; instructs students in ITIs/Vocational Training Institutes in respective trades as per defined job role. Imparts theoretical instructions for the use of tools& equipment's of related trades and related subjects. Demonstrate process and operations related to the trade in the workshop; supervises, assesses and evaluates students in their practical work. Ensures availability & proper functioning of equipment and tools in stores.

Reference NCO 2015:
      a) 3122.3500 – Supervisors and Foremen, Tailoring and Dress Making.
      b) 2356.0100 – Manual Training Teacher/Craft Instructor.

Reference NOS:

i)	AMH/N9419	iv)	AMH/N9411	vii)	AMH/N9412
ii)	AMH/N9420	v)	AMH/N9422	viii)	AMH/N9443
iii)	AMH/N9421	vi)	AMH/N9413		

5. LEARNING OUTCOMES

Learning outcomes are a reflection of total competencies of a trainee and assessment will be carried out as per the assessment criteria.

5.1 TRADE TECHNOLOGY

1. Appraise Drafting, Pattern making, Grading, Draping & Stitching. (NOS: AMH/N9419)
2. Demonstrate pattern making using different software tools like Corel draw, Adobe Photoshop etc. (NOS: AMH/N9420)
3. Check Drafting of Children Upper body & Lower Body Block. (NOS: AMH/9421)
4. Analyse Ladies Body Block & Trousers Block. (NOS: AMH/9421)
5. Assess Digitizing & Grading of Patterns. (NOS: AMH/N9419)
6. Review designing of Skirts, Sleeves, Collars & Developing Patterns with Spec Sheet, Marker Tools & 3D Tools. (NOS: AMH/N9421)
7. Explain Apparel enterprises & Apparel Market requirements. (NOS: AMH/N9411)
8. Ensure Quality control & inspection in garment industry. (NOS: AMH/9422)
9. Demonstrate Project Work on design/ development of pattern and garment stitching. (NOS: AMH/N9413)
10. Demonstrate different sewing machines, industrial sewing machines and their functions including motorized industrial sewing machine. (NOS: AMH/N9412)
11. Illustrate Pattern Making, Cutting, Stitching & finishing of Designer Blouses, Shirt/Safari, Designer Suits etc. (NOS: AMH/N9421)
12. Demonstrate Pattern making for special needs of Jacket & Vest coat (Including Lining) etc. (NOS: AMH/N9421)
13. Check the measurement, stitching etc. of finished Garments. (NOS: AMH/N9421)
14. Demonstrate project on theme garment as per market demand. (NOS: AMH/N9413)
15. Exhibit effective communication skills with logical reasoning ability and quantitative aptitude to maximize efficiency in work. (NOS: MEP/N9443)

6. COURSE CONTENT

	SYLLABUS FOR SEWING TECHNOLOGY – CITS TRADE		
	TRADE TECHNOLOGY		
Duration	Reference Learning Outcome	Professional Skills (Trade Practical)	Professional Knowledge (Trade Theory)
Practical 20 Hrs. Theory 10 Hrs.	Appraise Drafting, Pattern making, Grading, Draping & Stitching.	1. Revise the CTS contents. 2. Demonstrate Drafting, Pattern making, Grading, Draping & Stitching.	Revision of the CTS contents. Concepts of Drafting, Pattern making, Grading, Draping & Stitching.
Practical 54 Hrs. Theory 21 Hrs.	Demonstrate pattern making using different software tools like Corel draw, Adobe Photoshop etc.	3. Familiarize with the working of computer, Paint and different software like Corel draw, Adobe Photoshop etc.	Trade Knowledge Role of CAD in garment industry. Basic knowledge about various aspects of CAD operations, Paint, Corel draw and Adobe Photoshop, etc. Knowledge about importance of pattern. Safety precautions in garment industry.
		4. Create patterns with the help of Corel draw, Adobe Photoshop (Latest Software) etc.	Introduction of PDS (Create Pattern, Grade Pattern) Introduction of Marker (Create Layout) Introduction of 3D Introduction of Digitizer (Digitize pattern) Introduction of Plotter (Print Pattern) Scope Importance.
		5. Software tools for Pattern Making 6. Familiarize with menu & Commands – • New Piece • Select Tool • Point marking • Guide line • Delete • Move Piece • Save • New • Open	Starting of System Software Screen Menu. Details about the Tool Bars Command details.

		• Help	
		• Zoom	
		• Cut	
		• Copy	
		• Paste	
		• Matching Curves (walk Tool)	
		• Mirror Line	
		• Seams	
		• Select & move internals	
		• Inserting Text	
		• Rotate piece	
		• Measuring	
		• Adding fullness	
		• Cut, Join, Build & Trace piece	
		• Fold piece	
		• Insert, Edit, close & cut Dart	
		• Insert Pleat	
Practical 20 Hrs. Theory 10 Hrs.	Check Drafting of Children Upper body & Lower Body Block.	7. Analyze Drafting of Children Upper Body Block 8. Analyze Drafting of Children Lower Body Block • Base line - change/Rotate • Adding Fullness • Change corner • Insert Button • Add Notch • Align points, Circle, Arc & Wave • Trace & Trim • Extend, Join & split Contour • Swap segment • Demonstration of Cutting, Joining, • Creating lines & Parallels of drafts.	Children Size Charts & Bodies Block. Detailing of Tools.
Practical 20 Hrs. Theory 10 Hrs.	Analyze Ladies Body Block & Trousers Block.	9. Check Ladies Body Block & Trousers Block.	Ladies measurement chart & Ladies Blocks.
Practical 20 Hrs.	Assess Digitizing & Grading of Patterns.	10. Assess Digitizing of Pattern • Working with File, Edit,	Digitizing - Tools & Importance.

Theory 10 Hrs.		Piece, Design, Tool, View & Help menu. • Designing with darts. • Insertion of Style Lines.	
		11. Assess Grading of Patterns	Grading • Size Table • Grading Table • Grading Menu
Practical 55 Hrs. Theory 20 Hrs.	Review designing of Skirts, Sleeves, Collars & Developing Patterns with Spec Sheet, Marker Tools & 3 D Tools.	12. Examine drafting of Skirt Block Design insertion to the Block.	Designing in Skirts
		13. Monitor developing of Sleeve Blocks & Insertion of Design Developing Collars.	Designing in Sleeves & Collars.
		14. Developing Patterns with Spec Sheet.	Spec Sheet Export Import of files Printing & plotting commands X & Y axis.
		15. Demonstrate Marker Tools, making marker General Tools Information. 16. Piece, all size, Global 17. Placement of pieces 18. Fabric Pattern 19. Measure Tool 20. Plot order 21. Flaw Alignment • Shoot • Flip & Rotate • Auto Nesting • Batch • Merge • Import Export	Marker • Introduction • Knowledge about spreading techniques and equipment. • Marker modes and marker efficiency. • Knowledge about spreading and material handling.
		22. 3 D Tools 23. Model Property 24. Open, Save & Customize. 25. Place cloth, Clear cloth, Single 26. Draping, Show & Hide. 27. Stitch Property 28. 3 D Property	Introduction to 3D Use of 3D Tools of 3D software Draping technique Brief description of Model drawing, draping and grading on dummies.
Practical 20 Hrs. Theory 10 Hrs.	Explain Apparel enterprises & Apparel Market requirements.	29. Monitor exercise on each topic, collection of samples, survey work in market & industry, Preparation of sample folders & survey reports.	Apparel enterprises Apparel career, consulting, reporting, buying offices, promotion agencies, organization & trade association in apparel industry.

			Apparel Market Sourcing, market, changing trends in fashions, domestic &international market, primary & secondary market. Retail business, retail management, fashion retailing, departmental stores, chain stores, shopping centres & mall Globalization.
Practical 20 Hrs. Theory 10 Hrs.	Ensure Quality control & inspection in garment industry.	Findings 30. Identification of defects in fabrics & accessories 31. Measurements checking as per Spec. Sheet. 32. Preparation of cost Sheet.	Quality control • Introduction • Meaning • Need • Cost of quality control system • Concepts • Identification of critical factor.
		33. Exercise on various sheets used in garment export house by Quality Controllers.	Inspection • Definition, need, planning place, time, method • Type of Inspection • Stages of inspection • Role of inspector • Benefits of quality control in garment industry • Quality assurance system • Statistical quality control process • TQM.
Practical 20 Hrs. Theory 10 Hrs.	Demonstrate Project Work on design/ development of pattern and garment stitching.	Trainees will design/ develop pattern and stitch garments on the basis of skills developed under CTS & CITS and present the same. Selection of the projects will be according to the need of the industries as well as the choice & interest of the trainees.	Various pattern development and garment stitching.
Practical 59 Hrs. Theory 16	Demonstrate different sewing Machines and their functions including	34. Revise different sewing machines, their working, stitches, seams, sewing needles, working aids etc.	Introduction & scope of Apparel Industry, sewing machines, their models, parts and their functions.

Hrs.	motorized industrial sewing machine.		Ergonomics for effective work.
		35. Demonstrate samples on motorized industrial sewing machine.	• Technical Terms & their use in the trade • Safety during work • First Aid • First Aid Box • Fusing Technology
		36. Machinery & Equipment Basic Sewing machines for • General Sewing • Over locking • Safety Stitching • Blind Stitching • Button Holes • Bar Tacking • Button Sewing • Double Needle • Zigzag machine	Sewing Technology • Components of Sewing • Stitches & Seams • Feed System • Pressure Foot • Throat Plate • Feed Dog • Needles • Threads • Types of Motor & Belt

Practical 110 Hrs.
 	
Theory 40 Hrs.
	Illustrate Pattern Making, Cutting, Stitching & finishing of Designer Blouses, Shirt/Safari, Designer Suits etc.	37. Show Pattern Making, Cutting, Stitching & finishing of Designer Blouses as per Fashion.	• Estimation of cloth for
			  • Different width
			  • Different Size
			  • Different Fabric Pattern
			• Cutting Technology
			• Drafting of Ladies Blouse

		38. Explain Pattern Making, Cutting, Stitching & finishing of Shirt/Safari Shirt/Pathani Shirt as per Fashion.	Drafting and Pattern Making of Shirt/Safari Shirt/ Pathani Shirt • Special Sewing Machines • Work Aids • Machine Beds • Machine Tables • Work Chairs • Machine Attachments
		39. Demonstrate Cutting, Stitching & Finishing of following • T Shirt • Safari Shirt • Pathani Suit	Drafting & Pattern Making of • Shirt • Bush shirt • T Shirt • Safari Shirt • Pathani Shirt
		40. Show Pattern Making, Cutting, Stitching & finishing of Designer Suits according to latest trend & innovated idea.	Drafting of Ladies Shirt Trimmings & Accessories Estimation of Material for different width, size & Texture Garniture for a garment

			Costing of Garment
		41. Explain Cutting, Stitching & Finishing of anyone - • Shorts • American (Two Piece Trouser)	Drafting & Pattern Making of • Shorts • English/One-piece Trousers • American/Two Piece Trousers • Jeans
Practical 33 Hrs. Theory 12 Hrs.	Demonstrate Pattern Making for special needs of Jacket & Vest coat (Including Lining) etc.	42. Demonstrate Pattern Making for special Needs - • Deformed figures • Abnormal figures	Balance of Garment according to Structure of Human Body & its importance Deformed Figure
		43. Show Pattern Making of Jacket & Vest coat (Including Lining)	Drafting of Nehru Jacket & Vest Coat various style.
		44. Explain Pattern Making of - • Single Breast • Double Breast • Sherwan/Achkan	Drafting of Coat - • Single Breast • Double Breast • Sherwani /Achkan
Practical 09 Hrs. Theory 06 Hrs.	Check the measurement, stitching etc. of finished Garments.	45. Check Garments in respect of- • Measurements • Stitching • Stains • Defects	Accessories for Jackets & Coats. Inspection of Garments Finishing of Garments
Practical 20 Hrs. Theory 10 Hrs.	Demonstrate project on theme garment as per market demand.	Each trainee will work on a theme and select garment as per market demand and develop the same with innovative ideas and creativity.	Scope of applying themes while stitching garments. Existing themes for preparing garments.
SOFT SKILLS: 75 Hrs.			
Professional Knowledge Soft Skills- 75 Hrs.	Exhibit effective communication skills with logical reasoning ability and quantitative aptitude to maximize efficiency in work.	**COMMUNICATION SKILLS:** Oral communication Skills, Voice, accent, Voice modulation, pace, Intonation, etc. Study of different pictorial expressions of non-verbal communication and its analysis. Demo on Strengths and Weaknesses Demo on Motivation, Positive attitude. Practice on personal appearance, Dressing Manners & Etiquettes. Practice on attending of mock interview of different types. Listening & doubt clarifying etc. Case studies on Interview sessions. **Communication & Listening Skills** Components of effective communication, Types of communication- Oral, Written,	

Reading & body language, Handling of communication, Barriers of communication, Listening Tools & Speaking Tools, Non-verbal communication and its importance.

Self-Management& Personality Development Self-Management, SWOT analysis, self-learning and management. Motivation and Image building Techniques

Personal Grooming & Hygiene Presentation of Self, Formal & Informal Dressing, Dressing for Occasions.

Techniques of Attending Interviews Interview & its types. Preparation for the interview, stages of interview. Do's & Don'ts in an interview.

BASIC MATHEMATICAL CALCULATION:

Conversions of different units viz. length, area, mass etc. Simple Problems on Perimeter and area of a triangle, a circle, a square, rectangle, semicircle etc. Simple Problems on Comparing quantities, weight, speed, height, age, ratio, percentage, and price, etc. Simple calculation on profit and loss statement, discount calculations of products. Demonstration of utilization of mobile apps for financial transactions. Exercises on aptitude/puzzles

Practice on Types of Charts and Graphs

Introduction to units and dimensions of different objects. Perimeter, Area of regular shapes, viz. Triangle, Square, and Circle, rectangle, semicircle etc.

Quantitative Aptitude Introduction, Comparing quantities viz. Speed, age, height, ratio, percentage, weight, and price, etc. Introduction to cost price, sale price, profit, loss and discounts of products. Introduction to online internet banking mechanisms, various modes of payments, cash transactions and associated mobile apps. Concept of insurance and taxes and types. Personal saving and investment mechanism.

Logical reasoning Introduction to logical reasoning. Types of logical reasoning. Principles of logical reasoning with examples on numbers and sequences, arrangement and relations,

Data Interpretation Data analysis and interpretation. Types of variables for different applications. Basic graph types (Bar, Line, PIE Charts).

ENERGY & ENVIRONMENT:

Video demo on different types of energy resources. Conventional & Non-Conventional Energy Resources. Fossil Fuel, Biomass, Bio-Gas, Solar, etc. Public awareness on Energy conservation and use of clean energy.

ENGLISH LITERACY:

Pronunciation of simple words, Diction (use of word and speech) Transformation of sentences, Spellings. Reading and understanding simple sentences about self, work and environment. Construction of simple sentences Writing simple

		English, Speaking with preparation on self, on family, on friends/ classmates, on work. Role-playing and discussions on current affairs. Job description. Practice of Taking messages, passing on instructions. Practice making Resumes or curriculum vita. Letters of application &referencing to previous communication.

SYLLABUS FOR CORE SKILLS
Training Methodology (Common for all trades) (270 Hrs + 180 Hrs)

Learning outcomes, assessment criteria, syllabus and Tool List of above Core Skills subjects which is common for a group of trades, provided separately in www.bharatskills.gov.in

7. ASSESSMENT CRITERIA

LEARNING OUTCOME	ASSESSMENT CRITERIA
TRADE TECHNOLOGY	
1. Appraise Drafting, Pattern making, Grading, Draping & Stitching. (NOS: AMH/N9419)	Demonstrate Drafting.
	Show Pattern making.
	Demonstrate Grading.
	Illustrate Draping & Stitching.
2. Demonstrate pattern making using different software tools like Corel draw, Adobe Photoshop etc. (NOS: AMH/N9420)	Familiarize with various aspects of CAD operations.
	Explore different software's like Paint, Corel draw and Adobe Photoshop etc.
	Create patterns with the help of Corel draw, Adobe Photoshop (Latest Software) etc.
	Point out Safety precautions in garment industry.
	Create Pattern, Grade Pattern by PDS.
	Create Layout by Marker.
	Digitize pattern by Digitizer.
	Print Pattern by Plotter.
	Select & demonstrate various Software tools for Pattern Making.
3. Check Drafting of Children Upper body & Lower Body Block. (NOS: AMH/N9421)	Review Drafting of Children Upper body Block.
	Check Drafting of Children Lower Body Block.
	Change/Rotate Base line, add Fullness, change corner, Insert Button, Add Notch, Align points, Circle, Arc & Wave.
	Trace & Trim, Extend, Join & split Contour.
	Swap segment.
	Demonstrate Cutting, Joining.
	Create lines & Parallels of drafts.
4. Analyse Ladies Body Block & Trousers Block. (NOS: AMH/N9421)	Check Ladies Body Block.
	Analyze Trousers Block.
	Show Ladies measurement.
	Monitor Chart & Ladies Blocks.
5. Assess Digitizing & Grading of Patterns. (NOS: AMH/N9419)	Assess Digitizing of Pattern.
	Explore File, Edit, Piece, Design, Tool, View & Help menu.
	Design with darts.
	Insert Style Lines.
	Assess Grading of Patterns.
	Grade Size Table, Grading Table, Grading Menu.

6. Review designing of Skirts, Sleeves, Collars & Developing Patterns with Spec Sheet, Marker Tools & 3D Tools. (NOS: AMH/N9421)	Examine drafting of Skirt Block Design.
	Insert to the Block.
	Design Skirts.
	Monitor developing of Sleeve Blocks.
	Insert Design Developing Collars.
	Developing Patterns with Spec Sheet.
	Demonstrate Marker Tools &3D Tools.
7. Explain Apparel enterprises & Apparel Market requirements. (NOS: AMH/N9411)	Monitor exercise on Apparel enterprises & Apparel Market requirements.
	Plan collection of samples, survey work in market & industry.
	Monitor preparation of sample folders & survey reports.
8. Ensure Quality control & inspection in garment industry. (NOS: AMH/N9422)	Identify defects in fabrics & accessories.
	Check measurements as per Specific Sheet.
	Prepare cost Sheet.
	Exercise on various sheets used in garment export house by Quality Controllers.
9. Demonstrate Project Work on design/ development of pattern and garment stitching. (NOS: AMH/N9413)	Demonstrate Project Work on design of pattern and garment stitching.
	Demonstrate Project Work on development of pattern and garment stitching.
10. Demonstrate different sewing machines, industrial sewing machine and their functions including motorized industrial sewing machine. (NOS: AMH/N9412)	Demonstrate different sewing machines, their working, stitches, seams, sewing needles, working aids etc.
	Monitor samples on motorized industrial sewing machine.
	Demonstrate Basic Sewing machines for General Sewing, Over locking, Safety Stitching etc.
11. Illustrate Pattern Making, Cutting, Stitching & finishing of Designer Blouses, Shirt/Safari, Designer Suits etc. (NOS: AMH/N9421)	Estimate cloth for Different width, Different Size & Different Fabric Pattern.
	Show Pattern Making, Cutting, Stitching & finishing of Designer Blouses as per Fashion.
	Explain Pattern Making, Cutting, Stitching & finishing of Shirt/Safari Shirt/Pathani Shirt as per Fashion.
	Demonstrate Cutting, Stitching & Finishing of T Shirt, Safari Shirt, Pathani Suit.
	Show Pattern Making, Cutting, Stitching & finishing of Designer Suits according to latest trend & innovated idea.
	Explain Cutting, Stitching & Finishing of Shorts, American (Two Piece Trousers).

12. Demonstrate Pattern making for special needs of Jacket & Vest coat (Including Lining) etc. (NOS: AMH/N9421)	Demonstrate Pattern Making for special needs for Deformed figures, Abnormal figures etc.	
	Show Pattern Making of Jacket & Vest coat (Including Lining).	
	Explain Pattern Making of Single Breast, Double Breast Sherwani/Achkan etc.	
13. Check the measurement, stitching etc. of finished Garments. (NOS: AMH/N9421)	Check Measurements of finished garments.	
	Analyze Stitching, Stains, and Defects of finished Garments.	
	Inspect Garments.	
14. Demonstrate project on theme garment as per market demand. (NOS: AMH/N9413)	Select garment based on a theme for project.	
	Choose garment as per market demand for project.	
	Develop the project with innovative ideas and creativity.	
15. Exhibit effective communication skills with logical reasoning ability and quantitative aptitude to maximize efficiency in work (NOS: MEP/N9443)	Demonstrate reasonable quantitative aptitude and interpret data in the field of work	
	Demonstrate effective communication skills with logical reasoning ability.	
	Describe method of energy conservation and day-to- day contribution to work for optimum utilization of resources.	
	Demonstrate English language fluency while carrying out official work.	

8. INFRASTRUCTURE

	LIST OF TOOLS AND EQUIPMENT FOR SEWING TECHNOLOGY - CITS		
	For batch of 25 candidates		
Sl. No.	**Name of the Tool & Equipment**	**Specification**	**Quantity**
A. Computer Laboratory			
1.	Desktop computer	CPU: 32/64 Bit i3/i5/i7 or latest processor, Speed: 3 GHz or Higher. RAM: -4 GB DDR-III or Higher, Wi-Fi Enabled. Network Card: Integrated Gigabit Ethernet, with USB Mouse, USB Keyboard and Monitor (Min. 17 Inch. Licensed Operating System and Antivirus compatible with trade related software.	26 Nos.
2.	Pattern Making software		26 Nos.
3.	UPS		As required
4.	Server system (Latest Configuration) with software		01 No.
5.	LAN Connectivity & Internet facility to the computers		As per requirement
6.	CAD-Pattern Making Software(3D) C Draw Latest Version		05 each
7.	CAD-Fashion Design Software(Fashion Studio)		05 Nos.
8.	Antivirus Software		26 Nos.
9.	Laser Printer color	A4	01 No.
10.	Colored laser Printer	A3	01 No.
11.	Scanner		01 No.
12.	Computer Table for server		01 No.
13.	Printer Table		02 Ns.
14.	Table for Scanner		01 Ns.
15.	White Magnetic Board with Felt board & accessories		01 No.
16.	Digitizer		01 No.
17.	Plotter		01 No.
18.	Display Board		02 Nos.
19.	Storage Almira (Size as per requirement)		02 Nos.
20.	Air Conditioner	2 Ton capacity with Stabilizer	As per requirement
21.	Wall Clock		01 No.

22.	Modular Workstation with chair		25 Nos.
23.	LCD Projector		01 No.
24.	Vacuum Cleaner		01 No.
25.	Trainer's Table & Chair		01 set
26.	Laptop For Faculty (with latest configuration)		01 set
B. Theory Room			
27.	Single desks for trainees with arrangements of keeping Books etc.		25 Nos.
28.	Chairs without arms		25 Nos.
29.	Faculty Table & Chair set		01 No.
30.	Computer set with UPS & multimedia projector	CPU: 32/64 Bit i3/i5/i7 or latest processor, Speed: 3 GHz or Higher. RAM: -4 GB DDR-III or Higher, Wi-Fi Enabled. Network Card: Integrated Gigabit Ethernet, with USB Mouse, USB Keyboard and Monitor (Min. 17 Inch. Licensed Operating System and Antivirus compatible with trade related software.	01 No.
31.	White Magnetic Board with Felt board & accessories		01 No.
32.	Display Board		02 Nos.
33.	Storage Almira		01 No.
34.	Book Shelf		01No.
C. Drafting/Cutting /Sewing Room Tools & Equipment			
35.	Scissors	25 cm	26 Nos.
36.	Pinking Shears		05 Nos.
37.	Tailors Square		26 Nos.
38.	Leg Shaper		26Nos.
39.	Garment Hangers		25 Nos.
40.	Screw Driver Set		04 Nos.
41.	Cart chop		02 Nos.
42.	Table Sharpener		04 Nos.
43.	Pressing Table		05 Nos.
44.	Blanket for padding of Pressing Table		05 Nos.
45.	Rubber mat	Size as per requirement	05 Nos.
46.	Sprayer		05 Nos.
47.	Waste Bin	Big / Small	13 Nos.
48.	Pattern Punch		26 Nos.
49.	Pattern Nocher		26 Nos.
50.	Pattern Hanging Stand		04 Nos.
51.	Water Tub	60 cm dia.	01 No.

52.	Stand for hanging dresses		05 Nos.
53.	Trial room	3 side mirrors of size 150 cm X 60 cm each with arrangements of hanging Dresses	01 No.
54.	Electric Automatic steam press		02 Nos.
55.	Electric automatic iron		03 Nos.
56.	Sewing Machine -	Single Needle Lock stitch Industrial model	26 Nos.
57.	Over Lock Machine	3 Thread	01 No.
58.	Over lock Machine	5 Thread	01 No.
59.	Blind Stitching Machine		01 No.
60.	Button Hole Machine		01 No.
61.	Bar Tacking Machine		01 No.
62.	Safety Stitch Machine		01 No.
63.	Pick Glass		05 Nos.
64.	Zig Zag Multi-Purpose Machine		01 No.
65.	Machine attachments		As per requirement
66.	Chairs	low back rest or stools for the machines (one for each machine)	27 Nos.
67.	Drafting Table		10 Nos.
68.	Display board	covered with glass or acrylic sheet 120X90cm	02 Nos.
69.	Instructor Table		01 No.
70.	Instructor Chair		02 Nos.
71.	Steel Almira	195 X 90 X 60 cm	02 Nos.
72.	Pigeon hole Almira	10 lockers & separate locking arrangements for trainees	02 Nos.
73.	Locks for above pigeon hole		25 Nos.
74.	Wall Clock		03 Nos.
75.	Calculator Desk Type		01 No.
76.	White Board with accessories (size as per requirement)		02 Nos.
77.	Dummy (Lady)		02 Nos.
78.	Mannequins(lady)		02 Nos.
79.	Mannequins(Kids)		02 Nos.
80.	Mannequins(Gents)		02 Nos.
D. TRAINEES' TOOL KIT FOR 25 TRAINEES + 1 Instructor (consumable)			
81.	Measuring Tape	150 cm	26 Nos.
82.	Seam Ripper		26 Nos.
83.	Thimble		26 Nos.
84.	Drafting Card Scales	(set of six scales)	26 Nos.

85.	Tailors Square -	Plastic	26 Nos.
86.	French Curve	Set of six	26 sets
87.	Thread Cutter		26 Nos.
88.	Scale plastic	24"	26 Nos.
89.	Paper Cutter		26 Nos.
90.	Loop Turner		26 Nos.
91.	Drafting Pins(set)		26 Nos.
92.	Draping Pins		26 pkt.
93.	Draping Fabric Muslin		5 m.
94.	Muslin for Sewing Practice		3 m.