GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
DIRECTORATE GENERAL OF TRAINING

COMPETENCY BASED CURRICULUM

SHAWL WEAVING ARTISAN

(Duration: One Year)

CRAFTSMEN TRAINING SCHEME (CTS)

NSQF LEVEL- 3.5

SECTOR –TEXTILE & HANDLOOM

Directorate General of Training

SHAWL WEAVING ARTISAN

(Traditional Trade)

(Designed in 2024)

Version: 1.0

CRAFTSMEN TRAINING SCHEME (CTS)

NSQF LEVEL – 3.5

Developed By

Ministry of Skill Development and Entrepreneurship

Directorate General of Training

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1. COURSE INFORMATION

During the one-year duration of “Shawl Weaving Artisan” trade candidates are trained on professional skill, professional knowledge &Employability skill related to job role. In addition to this a candidate is entrusted to undertake project work and extra- curricular activities to build up confidence. The broad components covered under Professional Skill subject are as below:

The candidate will be familiar with institution, observe the safety precautions during performing various jobs. They will recognize different raw materials, properties and machinery equipment used in the trade. Trainees will be able to understand and analyze the preparatory process of weaving like, winding, warping and sizing. They will also be able to analyze various mechanisms of fly shuttle loom and through shuttle loom, like shedding, picking, beat up, let of take up motions. The course is designed not only to introduce the basic weaving skill also to take a journey of weaving patterns and color interactions. Every trainee will work individually on the 4-shaft handloom. The trainees will learn how to warp the yarns, dress the loom and weave. Starting the plain weave and its interesting derivatives and will explore different kinds of twills and 4-end sateen. Trainees will observe variety kinds of fibers and process of fabric making and will also develop skill on various chemical preparatory processes carried out for yarn and grey fabric. Washing and drying of textiles. The trainees will identify, select and organize the dyeing process of natural and synthetic fibers/ fabrics.

After completing the course, the candidates will be able to calculate and wind out warp, dress their loom, read a weaving draft, calculate how much material they need for a particular project, practice their weaving skills and explore more weaving structures on their own. He will also acquire coloration process and its methods and application.

2. TRAINING SYSTEM

2.1 GENERAL

The Directorate General of Training (DGT) under Ministry of Skill Development & Entrepreneurship offers a range of vocational training courses catering to the need of different sectors of the economy/ labor market. The vocational training programs are delivered under the aegis of Directorate General of Training (DGT). Craftsman Training Scheme (CTS) with variants and Apprenticeship Training Scheme (ATS) are two pioneer programs of DGT for strengthening vocational training.

Shawl Weaving Artisan trade under CTS is one of the newly designed courses delivered nationwide through a network of ITIs. The course is of one-year duration. It mainly consists of Domain area and Core area. In the Domain area (Trade Theory and Practical) impart professional skills and knowledge, while the core area (Employability Skill) imparts requisite core skills, knowledge, and life skills. After passing out the training program, the trainee is awarded National Trade Certificate (NTC) by DGT which is recognized worldwide.

Trainees needs to demonstrate broadly that they are able to:

- Read and interpret parameters / documentation, plan and organize work processes, identify necessary materials and tools;
- Perform task with due consideration to safety rules, accident prevention regulations and environmental protection stipulations.
- Apply professional knowledge & employability skills while performing the job.
- Document the parameter related to the task undertaken.

2.2 PROGRESSION PATHWAYS

- Can join industry as Shawl Weaving Artisan and will progress further as senior weaver, Supervisor and can rise up to the level of manager.
- Can become Entrepreneur in the related field.
- Can join Apprenticeship programs in different types of industries leading to a National Apprenticeship certificate (NAC).
- Can join Crafts Instructor Training Scheme (CITS) in the trade for becoming an instructor in ITIs.
- Can join Advanced Diploma (Vocational) courses under DGT as applicable.

2.3 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
		1st Year
1	Professional Skill (Trade Practical)	840
2	Professional Knowledge (Trade Theory)	240
3	Employability Skills	120
	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
Optional Courses (10th/ 12th class certificate along with ITI certification or add on short term courses)	240

Trainees of one-year or two-year trade can also opt for optional courses of up to 240 hours in each year for 10th/ 12th class certificate along with ITI certification or add on short term courses.

2.4 ASSESSMENT &CERTIFICATION

The trainee will be tested for his skill, knowledge and attitude during the period of course through formative assessment and at the end of the training programme through summative assessment as notified by the DGT from time to time.

a) The Continuous Assessment (Internal) during the period of training will be done by **Formative Assessment Method** by testing for assessment criteria listed against learning outcomes. The training institute has to maintain an individual trainee portfolio as detailed in assessment guideline. The marks of internal assessment will be as per the formative assessment template provided onwww.bharatskills.gov.in

b) The final assessment will be in the form of summative assessment. The All India Trade Test for awarding NTC will be conducted by Controller of examinations, DGT as per the guidelines. The pattern and marking structure is being notified by DGT from time to time. **The learning outcome and assessment criteria will be the basis for setting question papers for final assessment. The 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 REGULATION

For the purposes of determining the overall result, weightage of 100% is applied for six months and one year duration courses and 50% weightage is applied to each examination for two years courses. The minimum pass percent for Trade Practical and Formative assessment is 60% & for all other subjects is 33%.

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. Due consideration should 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 the following:

- Job carried out in labs/workshop
- Record book/ daily diary
- Answer sheet of assessment
- Viva-voce
- Progress chart
- Attendance and punctuality
- Assignment
- Project work
- Computer based multiple choice question examination
- Practical Examination

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

Performance Level	Evidence
(a) Marks in the range of 60%-75% to be allotted during assessment	
For performance in this grade, the candidate should produce work which demonstrates attainment of an acceptable standard of craftsmanship with occasional guidance, and due regard for safety procedures and	• Demonstration of good skills and accuracy in the field of work/ assignments. • A fairly good level of neatness and consistency to accomplish job activities. • Occasional support in completing the

practices	task/ job.
(b) Marks in the range of 75%-90% to be allotted during assessment	
For this grade, a candidate should produce work which demonstrates attainment of a reasonable standard of craftsmanship, with little guidance, and regard for safety procedures and practices	• Good skill levels and accuracy in the field of work/ assignments. • A good level of neatness and consistency to accomplish job activities. • Little support in completing the task/job.
(c) Marks in the range of more than 90% to be allotted during assessment	
For performance in this grade, the candidate, with minimal or no support in organization and execution and with due regard for safety procedures and practices, has produced work which demonstrates attainment of a high standard of craftsmanship.	• High skill levels and accuracy in the field of work/assignments. • A high level of neatness and consistency to accomplish job activities. • Minimal or no support in completing the task/ job.

3. JOB ROLE

Weaver, Handloom; weaves cloth from yarn on handloom. Mounts warp beam on loom. Sets heald frame in position. Draws ends of warp yarn from beam through comb and fastens them together to cloth winding roll. Places full bobbins of weft yarn in shuttle. Operates loom by pressing and relieving two foot levers alternately to raise and lower heald, simultaneously pulling string with jerk with one hand so as to throw shuttle across warp yarn from side to side and by moving comb forward and backward with other hand to properly fill weft yarn. Draws broken ends of yarn through heald and comb and knots them. Replaces empty bobbins in shuttles. Removes cloth from roll when required length has been woven. May size and dye yarn, wind yarn on bobbins or beam and draw ends of yarn from warp beam through healds preparatory to weaving.

Warper; Beamer tends warping machine for drawing and winding on a large spool (beam) many strands of yarn from several cones, cheeses or bobbins arranged on a creel. Fixes empty beam or drum in brackets of machine. Adjusts length gauge. Draws each thread through appropriate guide, dent and drop pin. Fastens all ends to beam or loops them on hook of drum. Starts machine and observes winding of yarn on beam whenever machine stops automatically, gets end of yarn brought from creel by Endman and pieces ends. Stops machine when required length has been wound, cuts yarn strands between comb and beam, knots all ends together into two or three bunches and removes beam from machine with help of Endman. Is designated as BEAMER when warping yarn from section drums to weaver's beam

Reference NCO-2015: -

a) 7318.5800 - Weaver Handloom
b) 8152.1700 - Warper

Reference NOSs:

a) AMH/N9468
b) AMH/N9469
c) AMH/N9470
d) AMH/N9471
e) AMH/N9472
f) AMH/N9473
g) AMH/N9474
h) AMH/N9475
i) AMH/N9476
j) AMH/N9477
k) AMH/N9478
l) AMH/N9479
m) AMH/N9480
n) AMH/N9481
o) AMH/N9484
p) AMH/N9485
q) AMH/N9486
r) AMH/N9487
s) AMH/N9488
t) AMH/N9489
u) AMH/N9490
v) AMH/N9490
w) AMH/N9482
x) AMH/N9483

4. GENERAL INFORMATION

Name of the Trade	**SHAWL WEAVING ARTISAN**
NCO - 2015	7318.5800, 8152.1700
NOS Covered	AMH/N9468, AMH/N9469, AMH/N9470, AMH/N9471, AMH/N9472, AMH/N9473, AMH/N9474, AMH/N9475, AMH/N9476, AMH/N9477, AMH/N9478, AMH/N9479, AMH/N9480, AMH/N9481, AMH/N9482, AMH/N9483, AMH/N9484, AMH/N9485, AMH/N9486, AMH/N9487, AMH/N9488, AMH/N9489, AMH/N9490, AMH/N9490
NSQF Level	Level-3.5
Duration of Craftsmen Training	One Year (1200 Hours+150 hours OJT/ Group Project)
Entry Qualification	Passed 10th class examination
Minimum Age	16 years as on first day of academic session.
Eligibility for PWD	LD, CP, LC, DW, AA, LV, DEAF, HH, AUTISM, ID, SLD, MD
Unit Strength (No. of Student)	20
Space Norms	110 sq. m
Power Norms	3 KW
Instructors Qualification for:	
i. Shawl Weaving Artisan Trade	B.Voc/Degree in Textile Designing/ Handloom/ Textile Technology from UGC recognized university with one year experience in the relevant field. **OR** Three year diploma Textile Designing/ Handloom/ Textile Technology from a recognized board of education with two-year experience in the relevant field. **OR** NTC/ NAC in "Shawl Weaving Artisan" with three-year experience in the relevant field. **OR** Registered artisan of handloom department of Central/ State govt. with 05 years' experience. **Essential Qualification:** Relevant Regular / RPL variants of National Craft Instructor Certificate (NCIC) under DGT. ***Note: -Out of two Instructors required for the unit of 2(1+1), one must have Degree/Diploma and other must have NTC/NAC qualifications***

	or registered artisan. However, both of them must possess NCIC in any of its variants.
ii. Employability Skill	MBA/ BBA / Any Graduate/ Diploma in any discipline with Two years' experience with short term ToT Course in Employability. (Must have studied English/ Communication Skills and Basic Computer at 12th / Diploma level and above) OR Existing Social Studies Instructors in ITIs with short term ToT Course in Employability.
iii. Minimum Age for Instructor	21 years.
List of Tools and Equipment	As per Annexure – I

5. LEARNING OUTCOME

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

5.1 LEARNING OUTCOMES

1. Identify textile fibers and understand their properties. (NOS: AMH/N9468)
2. Carryout different operations on charkha winding or pirn winding. (NOS: AMH/N9469)
3. Carryout Pre-warping activities. (NOS: AMH/N9470)
4. Operate the warping machine. (NOS: AMH/N9471)
5. Carry out post warping activities. (NOS: AMH/N9472)
6. Perform Preparatory process, machine settings and adjustments. (NOS: AMH/N9473)
7. Identify different parts of power loom. (NOS: AMH/N9474)
8. Identify and select working of various dobby and jacquard motions. (NOS: AMH/N9475)
9. Plan and prepare jacquard design on graph papers and harness mounting and card cutting to produce different structure of the fabric. (NOS: AMH/N9476)
10. Identify all parts of hand loom and their functions. (NOS: AMH/N9477)
11. Identify types of reed and head wires. (NOS: AMH/N9478)
12. Identify common defects and necessary precautions for avoiding defects. (NOS: AMH/N9479)
13. Analyze Yarn quality requirement of both warp and weft. (NOS: AMH/N9480)
14. Identify various weaving looms, their classification and perform primary, secondary and auxiliary motions. (NOS: AMH/N9481)
15. Prepare point paper for basic and modified weaves and their draft and design. (NOS: AMH/N9482)
16. Prepare design, draft, and peg plan in point paper for fundamental weave patterns, like plain, twill, satin and sateen. (NOS: AMH/N9483)
17. Assist in Tie up plans, peg plans and lifting plans. (NOS: AMH/N9484)
18. Carryout pre dyeing activities, preparatory processes. (NOS: AMH/N9485)
19. Carryout washing and dyeing of textiles. (NOS: AMH/N9486)
20. Identify and select dyeing processes for cotton fabric with suitable dyes. (NOS: AMH/N9487)
21. Carryout dye bath preparation for dyeing of wool, silk and jute fibers. (NOS: AMH/N9488)
22. Perform to plan the design by using CAD (Computer Aided Textile Designing). (NOS: AMH/N9489)
23. Identify quality products as per market demand. (NOS: AMH/N9490)
24. Examine the need for GI protection and to recognize the procedure in GI tagging. (Geographical Indications). (NOS: AMH/N9490)

6. ASSESSMENT CRITERIA

	ASSESSMENT CRITERIA
1. Identify textile fibers and understand their properties. (NOS: AMH/N9468)	Identify different textile raw material and understand their properties.
	Physical identification and chemical identification.
	Identify natural and manmade fibers.
	Different yarn packages like Cone, Spool, Hanks, Bobbin, Cheese.
	Illustrate the importance of textile fibers.
	Classify textile fibers based on origin.
	Identify textile fibers with respect to test, burning method/ chemical method and identify with the use of microscope.
	Show yarn properties and its morphological structure especially wool fiber.
	Identify the origin and interpret composition & classification of wool fiber.
	Illustrate the effect caused by atmosphere on properties of wool.
	Classify textile fibers and interpret its properties.
	Identify the basic principles of fibers and fabrics.
	Interpret about yarn and their creative use.
2. Carryout different operations on charkha winding or pirn winding. (NOS: AMH/N9469)	Fix hank on charkha.
	Perform Winding of hank on the other package.
	Start winding machine.
	Perform Pirn or charkha winding.
	Perform drawing of ends through machine.
	Stopping of winding machine.
	Piecing up of broken thread and restarting the machine.
	Replace empty package.
3. Carryout Pre-warping activities. (NOS: AMH/N9470)	Remove the run-out bobbins/ cones if it is still there on creel.
	Collect the removed bobbins, cones and place them in designated box.
	Clean the warping creel and warping machine thoroughly.
	Calculate no. of cones/ bobbins required as per no. of ends.
	Calculate minimum required weight of bobbins/ cones for Preparing required length of warp.

	Draw the ends from each creel.
	Ensure that the yarns pass through designated passage on machine.
4. Operate the warping machine. (NOS: AMH/N9471)	Give proper leasing of ends.
	Start warping machine.
	Ensure that there is no overlapping of ends and pay special attention to edges.
	Check for any breakage.
	Stop machine if there is breakage and mend it.
	Ensure proper tension in yarn.
	Stop the machine when the warping of required length is done.
	Complete the warping of 1st section.
	Repeat the sections as per needed.
	Transfer the completed warp from the warping drum into Weaver's beam.
5. Carry out post warping activities. (NOS: AMH/N9472)	Check that whether warped yarn is winded properly.
	Label the warper drum with required details like. Count, no. Of ends etc.
	Store the warped yarn properly and ensure it is kept stable.
	Cover the warp beam properly so that it does not get stained.
	Leave work area safe and secure when work is completed.
6. Perform Preparatory process, machine settings and adjustments. (NOS: AMH/N9473)	Interpret objectives of winding/ warping process/ pirn / bobbin winding process.
	Differentiate packages.
	Identify types of knots and supplies.
	Illustrate package faults, causes and remedial measures.
	Identify types of creel and features of winding and warping machine.
	Identify all parts of power loom, like pirn, shuttle, cone, picker, swell, slay, picking stick, race board reed, heald frame, heald eye, bottom shaft, crank shaft etc. in a weaving machinery.
7. Identify different parts of power loom. (NOS: AMH/N9474)	Identify various components of the power loom and their function.
	Select special features of power loom.

	Identify the parts involved in primary motions, secondary motions and auxiliary motions in weaving machines.
8. Identify and select working of various dobby and jacquard motions. (NOS: AMH/N9475)	Illustrate principles of dobby and their different types.
	Identify different types of jacquard and their uses.
	Demonstrate working of dobby.
	Demonstrate working of jacquard.
9. Plan and prepare jacquard design on graph papers and harness mounting and card cutting to produce different structure of the fabric. (NOS: AMH/N9476)	Prepare jacquard on graph papers / harness mounting / card cutting.
	Interpret principle of jacquard and its different types.
	Prepare design on graph papers using different weaves.
10. Identify all parts of hand loom and their functions. (NOS: AMH/N9477)	Identify various tools required to produce fabric.
	Interpret specifications and uses of tools and loom parts.
11. Identify types of reed and heald wires. (NOS: AMH/N9478)	Identify various types of reeds.
	Identify various types of heald wires.
	Determine reed count.
	Identify the types of drafting and denting procedure for various weave patterns.
12. Identify common defects and necessary precautions for avoiding defects. (NOS: AMH/N9479)	Analyze Yarn quality requirement of both warp and weft.
	Identify the various yarn defects and remedial measures.
	Carry out end breakage study in looms.
13. Analyze Yarn quality requirement of both warp and weft. (NOS: AMH/N9480)	Interpret principal of fabric formation.
	Make the loom fully operational.
	Start the loom.
	Produce a sample fabric.
14. Identify various weaving looms, their classification and perform primary, secondary and auxiliary	Interpret principle of fabric formation.
	Classify looms based on level of operation/ technology.
	Interpret the silent Features of shuttle loom
	Trace the passage of warp yarn on loom and identify various parts.

motions. (NOS: AMH/N9481)	Interpret the principles of shedding, picking and beat up motion.
	Interpret the different types of shed mechanisms.
	Interpret the shedding mechanisms of handloom.
	Interpret the difference between over and under picking.
	Interpret the mechanisms of take up and let off.
15. Prepare point paper for basic and modified weaves and their draft and design. (NOS: AMH/N9482)	Draw the weave representation on point paper.
	Prepare design draft/ peg plan for modified weave patterns like plain weave/ twill derivatives/ honey comb/ huck-a-back/ mock leno herringbone dice check weave etc.
16. Prepare design, draft, and peg plan in point paper for fundamental weave patterns, like plain, twill, satin and sateen. (NOS: AMH/N9483)	Prepare fabric as per suitable order of design/ weave.
	Prepare, design, draft, and peg plan in point paper for fundamental weave patterns, like plain, twill, satin and sateen.
17. Assist in Tie up plans, peg plans and lifting plans. (NOS: AMH/N9484)	Prepare tie up of heald wires and treadles as per order.
	Interpret drawing in denting procedure for various weave patterns.
	Prepare fabric as per suitable order of design/ weave.
18. Carryout pre dyeing activities, preparatory processes. (NOS: AMH/N9485)	Identify various wet processes (preparatory processes).
	Identifying different methods of wet processes like desiring, scouring and bleaching.
	Select various kinds of acids, alkalis and salts used in Processing.
19. Carryout Washing and dyeing of textiles. (NOS: AMH/N9486)	Wash and dye yarns and fabrics after preparatory process.
	Identify the water quality used in Processing.
	Perform safe handling of different chemicals.
	Demonstrate or carryout all preparatory processes.
20. Identify and select dyeing processes for cotton fabric with suitable dyes. (NOS: AMH/N9487)	Identify classification and different methods of dyeing.
	Select the dyes used for Cotton and other natural fibers
	Apply method used to prepare dye bath for dyeing.
	Demonstrate dyeing process used for dyeing of cotton fabric
	Carry out preparation of dye bath for dyeing of cotton fabric.
21. Carryout dye bath	Identify the dyes used for wool, silk and jute.

preparation for dyeing of wool, silk and jute fibers. (NOS: AMH/N9488)	Carryout dye bath preparation for dyeing of wool, silk and jute fibers.
	Demonstrate dyeing process used for wool, silk and jute fabrics.
22. Perform to plan the design by using CAD (Computer Aided Textile Designing). (NOS: AMH/N9489)	Interpret about CAD software.
	Interpret the basics of textile design and CAD software.
	Explore different types of CAD software use in textile design.
	Illustrate color theory, patterns, and motifs in textile design.
	Create and edit designs using CAD software
23. Identify quality products as per market demand. (NOS: AMH/N9490)	Interpret marketing concepts, theories and practices.
	Identify and analyze consumer behavior and market trends.
	Interpret the marketing mix and its components (product, price, place and promotion).
	Develop effective marketing strategies based on market research.
	Utilize various digital marketing channels and platforms effectively.
24. Examine the need for GI protection and to recognize the procedure in GI tagging. (Geographical indications). (NOS: AMH/N9490)	Interpret indicator attributes.
	Identify The class of goods to which the GI shall apply.
	Demonstrate Inspection structure for maintaining quality.
	Apply protection measures for eliminating infringements
	Hands-on experience in GI tagging.

SYLLABUS FOR SHAWL WEAVING ARTISAN TRADE			
DURATION: ONE YEAR			
Duration	**Reference Learning Outcome**	**Professional Skills (Trade Practical)**	**Professional Knowledge (Trade Theory)**
Professional Skill 50 Hrs. Professional Knowledge 10 hrs.	Identify textile fibers and understand their properties.	1. Identify different fibers. Natural and man-made. 2. Identify different types of fibers. 3. Practice safe methods of fire fighting in case of electrical fire. 4. Demonstrate use of fire extinguishers 5. Identify wool fiber. 6. Identify different forms of yarn packages like hanks, cones, cheese and spools their purpose and uses. Study of various yarns packages and faults. 7. Demonstrate different fibers quality by using burning and microscopic test.	• Introduction to the Trade • History and Invention • Today's requirements • Job Prospects and objective of the course. • Explain different yarn packages like hanks, cones, cheese and spools their purpose and uses. • Wool, its nature and origin, composition of wool fiber. • Explain Classification of wool according to fleece, lamb's wool, cotty wool, hogget wool, weather wool, merino wool, fine wool. • Explain Physical properties of wool, Chemical properties of wool, General structure of wool. • Explain Worsted Yarn and woolen yarn.
Professional Skill 50 Hrs. Professional Knowledge 10 hrs.	Carryout different operations on charkha winding and pirn winding.	8. Operate fly wheel (charkha) and swift simultaneously for pirn and bobbin winding. 9. Practice pirn winding and bobbin winding on charkha. 10. Practice piecing up of broken thread and restarting the machine. 11. Practice winding of pirn from cone. 12. Perform fixing the cone	• Explain winding. • What are the objectives of winding? • Various defects in winding and their preventions. • Types of fill bobbins used for weft, their advantages and disadvantages.

		on pirn winding machine, fixing the pirn, on the winding spindle and performing the following operations: (i) Starting /stopping of pirn winder. (ii) Piecing of broken ends, working of pirn winding machine and filling of pirn from skeins.	
Professional Skill 20 Hrs. Professional Knowledge 10 hrs	Carryout Pre-warping activities.	13. Calculate no. Of cones/ bobbins required as per no. Of ends. 14. Calculate minimum required weight of bobbins/ cones for preparing required length of warp.	• Definition of warping? • Types of warping. • Objectives and requirements of warping. • Importance of warping.
Professional Skill 50 hrs Professional Knowledge 10 hrs	Operate the warping machine	15. Carry out setting of bobbins on creel for pattern making and process of formation of stripe design and color combination. 16. Perform warping of warp-on-warp beam. 17. Transfer the completed warp from the warping drum into Weaver's beam.	• Preparatory process of warping with warp drum and creel. • Introduction of ground warping.
Professional Skill 20 hrs Professional Knowledge 10 hrs	Carry out post warping activities.	18. Identify the warped yarn is winded properly on beam. 19. Perform setting of warper drum with required details like. Count, no. Of ends etc. 20. Store the warped yarn properly and ensure it is kept stable. 21. Cover the warp beam properly so that it does not get stained.	• Explain post warping activities. • Precautions taking during post warping process.

Professional Skill 50 hrs Professional Knowledge 10 hrs	Perform Preparatory process, machine settings and adjustments.	22. Practice of various knots. 23. Perform setting of warp and winding machine. 24. Identify Package faults and causes.	• Sketching of various knots. • Explain different knots used in handloom weaving. • Evolution of handlooms. • Introduction to looms and their objectives. • Types of looms.
Professional Skill 20 hrs Professional Knowledge. 10 hrs	Identify different parts of power loom.	25. Interpret sketching and identify different parts of semi-automatic loom. 26. Interpret sketching and identify different parts of power loom.	• Constructional features of power loom, various components of power loom and their functions. • Introduction to conventional and non-conventional looms.
Professional Skill 50 hrs Professional Knowledge. 10 hrs	Identify and select working of various dobby and jacquard motions.	27. Demonstrate different types of dobbins and prepare dobby chain. 28. Practice on jacquard and interpret it's working.	• Dobbies used in weaving, chain and single lift and their working mechanism. • Study of various sizes of jacquard used in weaving. • Working jacquard used and their uses, single lift cylinder jacquard its parts and working mechanism.
Professional Skill 50 hrs Professional Knowledge 10 hrs	Plan and prepare jacquard design on graph papers and harness mounting and card cutting to produce different structure of the fabric.	29. Prepare jacquard design on graph papers and harness mounting and card cutting.	• Card cutting from design. Lacing, harness ties and different harness. •
Professional Skill 50 hrs Professional Knowledge. 10 hrs	Identify all parts of loom and their functions	30. Identify all parts of handloom and operate them. 31. Identify various tools required to produce fabric. 32. Identify specifications and uses of tools and loom parts.	• Explain parts of handloom and their functions. • Types of Handlooms. • Throw shuttle Handloom, • Fly shuttle Handloom, • Pit loom and • Frame loom.

Professional Skill 50 hrs Professional Knowledge 10 hrs	Identify various types of reed and heald wires.	33. Identify different types of heald. 34. Identify different types of reed.	• Explain Different types of heald. • Explain different types of reed-bamboo reed; • Pitch bound steel reed, and all metal steel reeds.
Professional Skill 20 hrs Professional Knowledge 10 hrs	Identify common defects and necessary precautions for avoiding defects.	35. Demonstrate different samples of fabric and make the students understand about different calculation particulars like count of yarn, twist in the yarn, crimp etc.	• Fabric defects, and how it causes. • Precautions taken for avoiding defects. • Importance of yarn. • Testing of yarn.
Professional Skill 20 hrs Professional Knowledge 10 hrs	Analyze Yarn quality requirement of both warp and weft.	36. Analyze warp, weft, EPI, PPI. 37. Calculate and analyze reed counts, number of ends per dent, cloth width, reed width and ends per inch. 38. Calculate and analyze creel capacity, number of sections, number of patterns per section, width of warp and total number of ends.	• Introduction to yarn numbering systems. • Indirect system of yarn numbering. • English system. • Metric system. • Worsted system. • Woolen Yorkshire. • Direct system of yarn numbering. • Tex and Denier. • Conversion of yarn count from indirect-to-indirect system. • Conversion of yarn count from direct-to-direct system. • Conversion of yarn count from indirect to direct system. • Conversion of yarn count from direct to indirect system. • Reed count- dents per linear space, Stockport reed. • Relaxation between reed counts, number of ends per dent, cloth width,

			reed width and ends per inch. • Sectional warping calculations- creel capacity, number of sections, number of patterns per section, width of warp and total number of ends.
Professional Skill 50 hrs Professional Knowledge 10 hrs	Identify various weaving looms, their classification and perform primary, secondary and auxiliary motions.	39. Identify Different parts of primary motion and secondary motion of the looms and practice. 40. Prepare different designs for different fabrics.	• Weaving of fabrics its principle processes. • Primary motion and secondary motion of loom. • Description of auxiliary motion.
Professional Skill 50 hrs Professional Knowledge 10 hrs	Prepare point paper for basic and modified weaves and their draft and design.	41. Demonstrate basic types of weaves and how they are created.	• Introduction to textile weaves and design.
Professional Skill 20 hrs Professional Knowledge 10 hrs	Prepare design, draft, and peg plan in point paper for fundamental weave patterns, like plain, twill, satin and sateen.	42. Construct plain weave and twill weave on Graph paper along with Respective weave analysis. 43. Practice twill weave and its derivatives on point paper. 44. Practice drafting and denting of twill weave and its derivatives on loom. 45. Practice of change in structure by varying lifting plan on graph paper. 46. Interpret different weaves from fabric samples and by weaving.	• Plain weave and its derivatives. • Rib weave, • Mat weave. • Twill weave and its derivatives - diamond weave, - broken twill, - herringbone twill, - pointed Twill, - Herring bone dice check twill. • Satin and sateen- regular and irregular satin 5 threads.
Professional Skill 50 Professional	Assist in Tie up plans, peg plans and lifting plans.	47. Practice on preparation of design draft and tie-up place the students shall create design and	• Designing of plain weave and its ornamentation. • Study of Huck- a Back weave.

Knowledge 10 hrs		prepare its drafting plan, lifting plan and tie-up plan. 48. Identify different weaves from the fabric samples.	• Study of mock leno weaves. • Honey comb weaves • Ordinary and brighten honey comb.
Professional Skill 20 hrs Professional Knowledge 10 hrs	Carryout pre dyeing activities, preparatory processes.	49. Identify different fibers, yarn and fabric. 50. Identify different types of fiber, yarn, fabric, which is suitable for wet processing. 51. Practice of scouring on wool yarn. 52. Practice of desizing the yarn/ fabric by using desizing method.	• Introduction to wet processing and preparation of fabric.
Professional Skill 20 hrs Professional Knowledge 10 hrs	Carryout Washing and dyeing of textiles.	53. Practice of scouring and calculate the percentage weight loss. 54. Practice of different samples fabric/ yarn for different bleaching powder. Hydrogen peroxide and sodium chlorite. 55. Practice dyeing of different fibers, fabrics and yarns with direct dyes. [Natural fibers].	• Preparatory process of bleaching. • Different methods of fiber dyeing, yarn dyeing and fabric dyeing.
Professional Skill 20 hrs. Professional Knowledge 10 hrs.	Identify and select dyeing processes for cotton fabric with suitable dyes.	56. Practice on method of application of Natural Dyeing. 57. Carry out sustainability Practices in Textile Dyeing. Classifies Natural Dye Sources. 58. Demonstrate Distinguishes Dyeing Methods with Natural Dyes and the Materials Used in Natural Dyeing. 59. Demonstrate the Extraction of Natural Dyes. 60. Demonstrate Dyeing and	• Classification of dyes. • Introduction of natural dyes, their origin (advantages and disadvantages). • Dyeing of cotton fabric with suitable dyes.

		Fastness Properties of Natural Dyes. 61. Identify and select dyeing processes for cotton fabric with suitable dyes.	
Professional Skill. 40 hrs. Professional Knowledge 20 hrs.	Carryout dye bath preparation for dyeing of wool, silk and jute fibers.	62. Select, organize the dyeing process of wool, silk, jute with suitable dyes. 63. Practice scouring on wool, silk and jute fibers. 64. Practice bleaching process on wool, jute. 65. Observe the safety measures in executing dyeing and bleaching.	• Principle of application of direct dyes and role of different chemicals used. • Principle of application of reactive dyes and role of different chemicals. • Principle of application of Acid dyes and role of different chemicals.
Professional Skill 50 hrs Professional Knowledge. 10 hrs	Perform to plan the design by using CAD (Computer Aided Textile Designing)	66. Practice of weaving plan design fabrics on CAD. (Photoshop CorelDraw, paint shop pro and CATD software. 67. Practice on Color and weave effect. 68. Practice of different designs with different colors.	• Introduction of computer and components of computer system. • Introduction to CAD. • How to use CAD.
Professional Skill 10 hrs Professional Knowledge. 05 hrs	Identify quality products as per Market demand.	69. Prepare schedule for industry professionals to share their experiences. 70. Organize visits to marketing agencies or companies. 71. Participate in marketing events and conferences.	• Introduction to marketing. • Definition and scope of marketing. • Importance of marketing in business. • Evolution and trends in marketing. • Marketing fundamentals. • Market research and analysis. • Marketing mix (Product, Price, Place, Promotion) • Marketing plan and strategy. • Digital marketing. • Introduction to digital marketing channels (websites, social media,

			email etc.).
Professional Skill. 10 hrs Professional Knowledge. 05 hrs	Examine the need for GI protection and to recognize the procedure in GI tagging. (Geographical Indications).	72. Organize field visits to areas with GI tagged textiles. 73. Demonstrate GI registration process.	• Introduction to geographical indications (GI) • Definitions & significance. • Historical background. • Economic & cultural impact. • Economic benefits of GI tagging for textiles. • Preservation of cultural heritage. • Process of GI registration. • Criteria for obtaining GI status. • Application procedures.

Note: *The duration of Professional skills (Trade practical) and Professional knowledge (Trade theory) are indicative only. The Training Institute has the flexibility to adopt suitable training duration for effective training.*

SYLLABUS FOR CORE SKILLS

1. Employability Skills (Common for all CTS trades) (120 Hrs.)

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

ANNEXURE-I

LIST OF TOOLS & EQUIPMENT			
SHAWL WEAVING ARTISAN (for Batch of 20 Candidates)			
S No.	**Name of the Tools and Equipment**	**Specification**	**Quantity**
A. Trainees Tool Kit			
1.	Swift with stand	Big size	10 nos.
2.	Swift	Small size	30 nos.
3.	Reed iron	Up to 60 inches	05 nos.
4.	Reed bamboo/ stainless steel	Up to 48 inches, 1000 dents	05 nos.
5.	Heald wire	Nylon quality wires 4000	05 sets.
6.	Heald wires	Nylon quality wires 4400	05 sets.
7.	Spinning wheel or charkha		02 nos.
8.	Creel	Wooden frame	02 nos.
9.	Warping heck with stand		02 nos.
10.	Lame rods		12 nos.
11.	Lease rods	Wooden or aluminum	20 nos.
12.	Weighing machine	Up to 10 kg's weight capacity	01 no.
13.	Temple	Up to 44 inches in length wooden	05 nos.
14.	Bobbin and pirn		200 nos. Each = 400
15.	Measuring cylinders	50 ml, 100 ml, 200 ml, 300 ml, 500 ml	05 nos.
16.	Lab thermometer.		05 nos.
17.	Glass and metal stirring rods.		05 no's each=10.
18.	Calorimeter (pH indicator)		02 nos.
19.	Scissor	Big size	02 nos.
20.	Scissor	Small size	10 nos.
21.	Tool kit		02 nos.
B. Shop floor tools & equipment			
22.	Traditional throw shuttle loom with accessories		05 nos.
23.	Measuring tape	Up to 50 mtrs	02 nos.
24.	Traditional Fly shuttle loom with accessories.		05 nos.
25.	Warping drum or sectional warping machine.		02 nos.
26.	Gas stove or heat induction for dyeing purpose.		05nos.
27.	Dye bath or beaker	Stainless steel vessel up to 10	05 nos.

		Liters water capacity	
28.	Pirn winding machine	6 Spindle	01 no.
29.	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.	05 nos.
30.	Laser jet printer		01 no.
C. Raw Materials and General tool kit			
31.	Soda ash		500 ml
32.	Glauber salt and common salt		I kg
33.	Acetic acid		200 ml
34.	Formic acid		200ml
35.	Hydrogen peroxide or sodium chlorite.		200ml
36.	Direct dyes	Red, yellow, brown, blue, black color	01 kg each= 05kgs
37.	Acid dyes	Red, green, orange, pink, black	01 kg each= 05kgs
38.	Natural dyes.		As required.
39.	Washing and soaping agent	Sera fast-CRD	As required.
40.	Woolen yarn 2 ply	54 Counts	05 kgs
41.	Raffal yarn 2 ply	120 Count	04 kgs
42.	Raffal yarn 2 ply	40 Count	05 kgs
43.	Nylon thread		02 balls
44.	Graph note books		As required
45.	Drawing note books		As required
46.	Poster colors	Each box is of 12 shades	As required
47.	Drawing color brushes		25 nos.
48.	Color mixing palette		25 nos.
49.	First Aid kit		01 no.
50.	Shade card (Neelam)		As required
51.	Half Mannequin (dummy).		As required
D. General Shop Outfit, Furniture and Materials			
52.	Fire Extinguisher		01 no.
53.	Instructor Chairs		02 nos.
54.	Instructor table		02 nos.
55.	Computer Table		05 nos.
56.	Computer Chairs		20 nos.

57.	Stool		05 nos.
58.	Steel Almira		02 nos.
59.	White board		01 no.
60.	White board marker		01 box
61.	Duster		05 nos.
62.	Cotton cloth (duster)		05 nos.
63.	Metal Rack	100cm x 150cm x 45cm	04 nos.
64.	Lockers with 16 drawers standard size		02 nos.
65.	Smart interactive board		01 no.
66.	Split AC (with Stabilizer)		As required
67.	Notebooks for trainees theory and practical		52 Nos. each
68.	Pencils, erasers, sharpeners		52 Nos. each
69.	Notice board		01 nos.
70.	Wall clock		01 nos.

Note: -
Internet facility is desired to be provided in the class room.

ANNEXURE - II

The DGT sincerely acknowledges contributions of the Industries, State Directorates, Trade Experts, Domain Experts, trainers of ITIs, NSTIs, faculties from universities and all others who contributed in revising the curriculum.

Special acknowledgement is extended by DGT to the following expert members who had contributed immensely in this curriculum.

List of Expert members participated for finalizing the course curriculum of Shawl Weaving Artisan trade held on 01st& 02nd February, 2024 at Srinagar (Jammu & Kashmir).			
S No.	**Name & Designation**	**Organization**	**Mentor Council Designation**
1.	Shri Sudershan Kumar – JKAS, Director	Skill Development - J&K	Chairman
2.	Shri Sanjay Kumar – ISDS, Director	CD, DGT - MSDE	Co-Chairman
3.	Shri G.C. Rama Murthy - ISDS ,Joint Director	CD, DGT - MSDE	Member
4.	Shri Khan Farooq Ahmed Joint Director (Nodal Officer)	Skill Development, Kashmir	Member
5.	Shri G M Bhat, Joint Director	Skill Development, Jammu	Member
6.	Shri MohdShafi Bhat, Principal	Govt Women Polytechnic Srinagar	Member
7.	Shri V.K. Saksena – ISDS, Deputy Director	NSTI Jammu (Srinagar Extension)	Member
8.	Shri Mohd Ashraf Wani, Principal (Senior Scale)	Govt ITI Srinagar	Member
9.	Smt Foziya Yousuf Illahi, HOD	Govt Women Polytechnic Srinagar	Member
10.	Shri S. Bandyopadhyay – ISDS, Assistant Director	CD, DGT - MSDE	Member
11.	Shri Sajad Hussain Naqueeb, Assistant Director (Trg.)	DSD Office Srinagar	Member
12.	Shri Ravi Gupta,Assistant Director	DSD Office Srinagar	Member
13.	Shri Surinder Kumar, Assistant Director	Handicraft & Handloom Department, Kashmir	Member
14.	Shri Javid Ahmed Ganai,Principal	Govt ITI Baramulla	Member

15.	Shri Imran Wajahat ,Principal	Govt ITI Anantnag	Member
16.	Smt Archana Devi, Superintendent	Govt ITI Basohli	Member
17.	Shri Imtiyaz Ahmad Mir, Superintendent	Govt ITI Pattan	Member
18.	Shri P.K. Bairagi, Training Officer	CSTARI - Kolkata	Member
19.	Shri B.K. Nigam, Training Officer	CSTARI – Kolkata	Member
20.	Shri Nazir Ahmad, Technical Asst.	JD Office Jammu	Member

ABBREVIATIONS:

CTS	Craftsmen Training Scheme
ATS	Apprenticeship Training Scheme
CITS	Craft Instructor Training Scheme
DGT	Directorate General of Training
MSDE	Ministry of Skill Development and Entrepreneurship
NTC	National Trade Certificate
NAC	National Apprenticeship Certificate
NCIC	National Craft Instructor Certificate
LD	Locomotor Disability
CP	Cerebral Palsy
MD	Multiple Disabilities
LV	Low Vision
HH	Hard of Hearing
ID	Intellectual Disabilities
LC	Leprosy Cured
SLD	Specific Learning Disabilities
DW	Dwarfism
MI	Mental Illness
AA	Acid Attack
PwD	Person with disabilities


कौशलं बलम्