

Model Curriculum

Jacquard Harness Builder

SECTOR: TEXTILE

SUB-SECTOR: HANDLOOM & KHADI

**OCCUPATION: MAINTENANCE - HANDLOOM
& ACCESSORIES**

REF ID: TSC/Q7502 | V3.0

NSQF LEVEL: 2



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the **TEXTILE**

SECTOR SKILL COUNCIL for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **Jacquard Harness Builder**
QP No. 'TSC/ Q 7502' **NSQF Level 2'**

Date of Issuance: ! S@# ' - * .

Valid up to: ! S@# ' - * .



(Dr. Swapna Mishra)
Director (C&T)
(Textile Sector Skill Council)

* Valid up to the next review date of the Qualification Pack

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Jacquard Harness Builder

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Qualifications Pack – Jacquard Harness Builder”, in the “Textile” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Qualifications Pack – Jacquard Harness Builder		
Qualification Pack Name & Reference ID.	Qualifications Pack – Jacquard Harness Builder TSC/Q7502, version 3.0		
Version No.	3.0	Version Update Date	31.03.2022
Pre-requisites to Training	Ability to read and write		
Training Outcomes	<ul style="list-style-type: none"> This unit refers to the necessary skills, knowledge and personality required by jacquard harness builder to build a harness for handloom jacquard weaving. This unit provides performance criteria, knowledge, understanding, skills and abilities required to organize/maintain work area and activities to ensure tools used for winding are maintained as per norms. This unit is about working in a team in a handloom sector. This unit provides performance criteria, knowledge, understanding, skills and abilities required to comply with health, safety and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others This unit is about knowing, understanding and complying with work place requirements in handloom sector. 		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “**Qualifications Pack – Jacquard Harness Builder**” Qualification Pack issued by “TSC: Textile Sector Skill Council”

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Build harness for handloom jacquard weaving</p> <p>Theory Duration (hh:mm) 60:00</p> <p>Practical Duration (hh:mm) 150:00</p> <p>Corresponding NOS Code TSC/N 7502</p>	<ul style="list-style-type: none"> place the jacquard machine in relation to the loom with card cylinder either on the sides or in the front or back ensure that the long rows of the hooks are at right angle or in parallel to the length of the comber-board when the card cylinder is on the sides or in front/back of the loom respectively cross the harness cords with each other when passing from the neck-cords to the holes in the comber-board if the card cylinder is on the sides of the loom— London/crossed or quarter twist tie check the harness cords do not cross each other when the card cylinder is in front/back of the loom—Norwich or straight tie identify the hook in the row nearest to the head of the cylinder as the first hook distinguish between the types of tie as per the design specifications—single tie and lay-over or repeat tie check the hooks are tied to the harness cords as per the jacquard designs ensure the width of the comber-board is as per quality draw the warp threads through the harness mail eyes place the numbered ends of the laced jacquard cards at the right side of the cylinder for rotation in serial order and design specifications calculate the number of harness mails per unit area dent the warp in the reed sometimes, e.g. 200 threads, 4 split and 200 threads, 2 split maintain uniform distribution of the harness cord on the comber-board calculate the number of harness cord per unit length calculate the number of harness cords to each hook cast-out by leaving empty a portion of the mails in each repeat of the harness ensure that the wrap threads should occupy the same width in the harness as in the reed check the set of harness does not change when tied up change the set of wrap in the reed according to the requirements select rows for cast-out in such a 	<p><u>1. common for every batch:</u> Jacquard Harness and related tools and punch cards</p> <p><u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
2	Maintain work area and tools in handloom sector Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code TSC/N 9005	<ul style="list-style-type: none"> handle materials and tools safely and correctly use correct lifting and handling procedures use materials in a manner to minimize waste maintain a clean and hazard free working area maintain the tools and equipment used for winding carry out maintenance and/or cleaning within one's responsibility identify damaged tools and materials and take action according to the standards followed ensure that the correct tools and yarn required are in place work in the correct posture use cleaning equipment and methods appropriate for the work to be carried out dispose of waste safely in the designated location store cleaning equipment safely after use 	1. <u>common for every batch:</u> poster/video visuals for work method 2. <u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector
3	Working in a team in handloom sector Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code TSC/N 9006	<ul style="list-style-type: none"> perform own duties effectively take responsibility for own actions be accountable towards the job role and assigned duties take initiative and innovate the existing methods focus on self-learning and improvement co-ordinate with all team members and colleagues communicate politely avoid conflicts and miscommunication know the organizational standards implement them in your performance motivate others to follow them 	1. <u>common for every batch:</u> poster/video visuals for work method 2. <u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector

4	<p>Maintain health, safety and security at work place in handloom sector</p> <p>Theory Duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code TSC/N 9007</p>	<ul style="list-style-type: none"> • comply with health and safety related instructions applicable to the workplace • use and maintain personal protective equipment as per protocol • carry out own activities in line with approved guidelines and procedures • maintain a healthy lifestyle and guard against dependency on intoxicants • follow environment management system related procedures • store materials and tools in line with manufacturer's and Cooperative Society/NGO/SHG requirements • safely handle and move waste and debris • minimize health and safety risks to self and others due to own actions • monitor the work place and work processes for potential risks and threats • carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned • participate in mock drills/ evacuation procedures organized at the workplace • undertake first aid, fire-fighting and emergency response training, if asked to do so • take action based on instructions in the event of fire, emergencies or accidents • follow Cooperative Society/NGO/SHG procedures for evacuation when required • identify different kinds of possible hazards (environmental, personal, ergonomic and chemical) of the industry • recognize other possible security issues existing in the workplace • plan the safety techniques • recognize different measures to curb the hazards • implement the programs • communicate the safety plans to everyone • attach disciplinary rules with the implementation 	<p><u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p>
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5	<p>Comply with work place requirements in handloom sector</p> <p>Theory Duration (hh:mm) 05:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code TSC/N 9008</p>	<ul style="list-style-type: none"> • be accountable to one's own role in the whole process • perform all roles with full responsibility • be effective and efficient at workplace • properly communicate about work place policies • talk politely with other team members and colleagues • submit daily report of own performance • adjust in different work situations • give due importance to others' point of view • avoid conflicting situations • improve upon the existing techniques to increase process efficiency 	<p><u>1. A sample of following items</u> for each trainee: apron, head cap, nose mask, ear plug, shoe,</p> <p><u>2. common for every batch:</u> first aid materials, fire extinguisher, work method posters/pictures,</p> <p><u>3. Class room requirements:</u> 25 people seating capacity with a screen and projector</p>
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6	<p>Employability Skills (30 Hours)</p> <p>Theory Duration (hh:mm) 12:00</p> <p>Practical Duration (hh:mm) 18:00</p>	<ul style="list-style-type: none"> • Discuss the importance of Employability Skills in meeting the job requirements. • Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. • Show how to practice different environmentally sustainable practices • Discuss 21st century skills. • Display positive attitude, self-motivation, problem solving, time management skills and continuous learning mindset in different situations. • Use appropriate basic English sentences/phrases while speaking • Demonstrate how to communicate in a well-mannered way with others. • Demonstrate working with others in a team • Show how to conduct oneself appropriately with all genders and PwD • Discuss the significance of reporting sexual harassment issues in time • Discuss the significance of using financial products and services safely and securely. • Explain the importance of managing expenses, income, and savings. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws • Show how to operate digital devices and use the associated applications and features, safely and securely • Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely. • Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges. • Differentiate between types of customers • Explain the significance of identifying customer needs and addressing them • Discuss the significance of maintaining hygiene and dressing appropriately. • Create a biodata • Use various sources to search and apply for jobs • Discuss the significance of dressing up neatly and maintaining hygiene for an interview • Discuss how to search and register for apprenticeship opportunities. 	<p>Class room requirements: 25 people seating capacity with a screen and projector</p>
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	Total Duration: 330:00 Theory Duration 102:00 Practical Duration 228:00	Unique Equipment Required: Jacquard Harness and related tools and punch cards apron, head cap, nose mask, ear plug, shoe, first aid materials, fire extinguisher, work method posters, work method video visuals, projector, screen
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Grand Total Course Duration: 330 Hours, 0 Minutes

(This syllabus/ curriculum has been approved by TSC: Textile Sector Skill Council)

Trainer Prerequisites for Job role: “Jacquard Harness Builder” mapped to Qualification Pack: “Jacquard Harness Builder / TSC/Q7502, Version 3.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “Jacquard Harness Builder / TSC/Q7502, Version 3.0”.
2	Personal Attributes	Aptitude for conducting training, and pre / post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organized and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Basic Literacy and Numeracy
4a	Domain Certification	Certified for Job Role: Jacquard Harness Builder" mapped to QP: “Jacquard Harness Builder / TSC/Q7502, Version 3.0”. Minimum accepted score 80%.
4b	Platform Certification	Required that the Trainer is certified for MEP/Q2601 Job Role: “Trainer” with at least 80% score
5	Experience	Minimum 6 years’ experience in relevant sector

Employability Trainer Prerequisites

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate/CITS	Any Discipline			2	Teaching Experience	Prospective ES trainer should: <ul style="list-style-type: none"> • have good communication skills • be well versed in English • have digital skills • have attention to detail • be adaptable • have willingness to learn
Current ITI Trainers	Employability Skills Training (3 days full-time course done between 2019-2022)					
Certified current EEE trainers (155 hours)	from Management SSC (MEPSC)					
Certified Trainer	Qualification Pack: Trainer (MEP/Q0102)					

Annexure: Assessment Criteria

ASSESSMENT CRITERIA

Job Role: Jacquard Harness Builder

Qualification Pack: TSC/Q7502

Sector Skill Council: Textile Sector Skill Council

Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria.
5. To pass the Qualification Pack, every trainee should score a minimum of 50% in aggregate.
6. The marks are allocated PC wise, however, every NOS will carry a weightage in the total marks allocated to the specific QP.

Assessable Outcomes	Assessment Criteria	Total Marks	Out of	Theroy	Practical Skills
TSC/N7502 Build harness for handloom jacquard weaving	PC1. place the jacquard machine in relation to the loom with card cylinder either on the sides or in the front or back	200	10	3	7
	PC2. ensure that the long rows of the hooks are at right angle or in parallel to the length of the comberboard when the card cylinder is on the sides or in front/back of the loom respectively		10	3	7
	PC3. cross the harness cords with each other when passing from the neck-cords to the holes in the comber-board if the card cylinder is on the sides of the loom		10	3	7
	PC4. check the harness cords do not cross each other when the card cylinder is in front/back of the loom		10	3	7
	PC5. identify the hook in the row nearest to the head of the cylinder as the first h		10	3	7
	PC6. distinguish between the types of tie as per the design specifications		10	3	7
	PC7. check the hooks are tied to the harness cords as per the jacquard designs		10	3	7
	PC8. ensure the width of the comber-board is as per quality		10	3	7

	PC9. draw the warp threads through the harness mail eyes		10	3	7
	PC10. place the numbered ends of the laced jacquard cards at the right side of the cylinder for rotation in serial order and design specifications		10	3	7
	PC11. calculate the number of harness mails per unit area		10	3	7
	PC12. dent the warp in the reed sometimes		10	3	7
	PC13. maintain uniform distribution of the harness cord on the comber-board		10	3	7
	PC14. calculate the number of harness cord per unit length		10	3	7
	PC15. calculate the number of harness cords to each hook		10	3	7
	PC16. cast-out by leaving empty a portion of the mails in each repeat of the harness		10	3	7
	PC17. ensure that the wrap threads should occupy the same width in the harness as in the reed		10	3	7
	PC18. check the set of harness does not change when tied up		10	3	7
	PC19. change the set of wrap in the reed according to the requirements		10	3	7
	PC20. select rows for cast-out in such a manner that they in the same order when counted from either end of the card		10	3	7
		Total	200	60	140
TSC/N9005 Maintain work area and tools in handloom sector	PC1. handle materials and tools safely and correctly	50	5	2	3
	PC2. use correct lifting and handling procedures		3	1	2
	PC3. use materials in a manner to minimize waste		3	1	2
	PC4. maintain a clean and hazard free working area		3	1	2
	PC5. maintain the tools and equipment used for winding		5	2	3
	PC6. carry out maintenance and/or cleaning within one's responsibility		5	2	3
	PC7. identify damaged tools and materials and take action according to the standards followed		5	2	3
	PC8. ensure that the correct tools and yarn required are in place		3	1	2
	PC9. work in the correct posture		3	1	2
	PC10. use cleaning equipment and methods appropriate for the work to be carried out		3	1	2

	PC11. dispose of waste safely in the designated location		4	2	2
	PC12. store cleaning equipment safely after use		3	1	2
	PC13. carry out cleaning according to schedule and limits of responsibility		5	2	3
		Total	50	19	31
TSC/N9006 Working in a team in handloom sector	PC1. perform own duties effectively	50	5	2	3
	PC2. take responsibility for own actions		5	2	3
	PC3. be accountable towards the job role and assigned duties		5	2	3
	PC4. take initiative and innovate the existing methods		3	1	2
	PC5. focus on self-learning and improvement		5	2	3
	PC6. co-ordinate with all team members and colleagues		5	2	3
	PC7. communicate politely		5	2	3
	PC8. avoid conflicts and miscommunication		5	2	3
	PC9. know the organizational standards		5	2	3
	PC10. implement them in your performance		5	2	3
	PC11. motivate others to follow them		2	1	1
		Total	50	20	30
TSC/N9007 Maintain health, safety and security at work place in handloom sector	PC1. comply with health and safety related instructions applicable to the workplace	100	6	2	4
	PC2. use and maintain personal protective equipment as per protocol		6	2	4
	PC3. carry out own activities in line with approved guidelines and procedures		4	1	3
	PC4. maintain a healthy lifestyle and guard against dependency on intoxicants		4	1	3
	PC5. follow environment management system related procedures		4	1	3
	PC6. store materials and tools in line with manufacturer's and Cooperative Society/NGO/SHG requirements		4	2	2
	PC7. safely handle and move waste and debris		4	2	2
	PC8. minimize health and safety risks to self and others due to own actions		6	2	4
	PC9. monitor the work place and work processes for potential risks and threats		6	2	4
	PC10. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned		6	2	4

	PC11. participate in mock drills/ evacuation procedures organized at the workplace		4	2	2
	PC12. undertake first aid, fire-fighting and emergency response training, if asked to do so		6	2	4
	PC13. take action based on instructions in the event of fire, emergencies or accidents		6	2	4
	PC14. follow Cooperative Society/NGO/SHG procedures for evacuation when required		4	1	3
	PC15. identify different kinds of possible hazards (environmental, personal, ergonomic and chemical) of the industry		4	1	3
	PC16. recognize other possible security issues existing in the workplace		4	1	3
	PC17. plan the safety techniques		5	2	3
	PC18. recognize different measures to curb the hazards		4	1	3
	PC19. implement the programs		5	2	3
	PC20. communicate the safety plans to everyone		4	1	3
	PC21. attach disciplinary rules with the implementation		4	1	3
		Total	100	33	67
TSC/N9008 Comply with work place requirements in handloom sector	PC1. be accountable to one's own role in the whole process	50	6	2	4
	PC2. perform all roles with full responsibility		5	1	4
	PC3. be effective and efficient at workplace		4	2	2
	PC4. properly communicate about work place policies		5	2	3
	PC5. talk politely with other team members and colleagues		5	2	3
	PC6. submit daily report of own performance		6	2	4
	PC7. adjust in different work situations		5	2	3
	PC8. give due importance to others' point of view		5	2	3
	PC9. avoid conflicting situations		5	2	3
	PC10. improve upon the existing techniques to increase process efficiency		4	2	2
		Total	50	19	31

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation	
				Theory Marks	Practical Marks
DGT/VSQ/N0101 – Employability Skills	Introduction to Employability Skills			1	1
	1. understand the significance of employability skills in meeting the job requirements				
	Constitutional values – Citizenship			1	1
	2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices.				
	Becoming a Professional in the 21st Century			1	3
	3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.				
	Basic English Skills			2	3
	4. speak with others using some basic English phrases or sentences				
	Communication Skills			1	1
	5. follow good manners while communicating with others				
	6. work with others in a team				
	Diversity & Inclusion			1	1
	7. communicate and behave appropriately with all genders and PwD				
	8. report any issues related to sexual harassment				
	Financial and Legal Literacy			3	4
	9. use various financial products and services safely and securely				
	10. calculate income, expenses, savings etc.				
	11. approach the concerned authorities for any exploitation as per legal rights and laws				

	Essential Digital Skills		4	6
	12. operate digital devices and use its features and applications securely and safely			
	13. use internet and social media platforms securely and safely			
	Entrepreneurship		3	5
	14. identify and assess opportunities for potential business			
	15. identify sources for arranging money and associated financial and legal challenges			
	Customer Service		2	2
	16. identify different types of customers			
	17. identify customer needs and address them appropriately.			
	18. follow appropriate hygiene and grooming standards.			
	Getting ready for apprenticeship & Jobs		1	3
	19. create a basic biodata			
	20. search for suitable jobs and apply			
	21. identify and register apprenticeship opportunities as per requirement			
	NOS Total	50	20	30
	Grand Total	500	171	329



Textile Sector Skill Council

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