

# NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

NSDA Reference

*To be added by NSDA*

## CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

### Name and address of submitting body:

**Textile Sector Skill Council (TSC)**

**Address:** 15<sup>th</sup> Floor, Nirmal Tower,

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New Delhi - 110001

Tel: 011-23325012

### Name and contact details of individual dealing with the submission

**Name:** Dr. Swapna Mishra

**Position in the organisation:** Director

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## List of documents submitted in support of the Qualifications File

1. Career Map/ Progression of Hand Spinning Operator- [Annexure 1](#)
2. QP TSC/Q7901- [Annexure 2](#)
3. NSDC report on Human Resource and Skill Requirements in Textiles Sector – [Annexure 3](#)
4. Protocol for Accreditation of Assessment Agencies and Assessment Framework – [Annexure 4](#)
5. Format for EOI for AA Accreditation from TSC - [Annexure 5](#)
6. Model Curriculum – [Annexure 6](#)

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## SUMMARY

|   |   |
|---|---|
| <b>Qualification Title</b>  | Hand Spinning Operator (Traditional Charka/ New Model Charka/ Solar Operated New Model Charka)  |
| <b>Qualification Code</b>   | TSC/Q7901   |
| <b>Nature and purpose of the qualification</b>  | <p>This is a Qualification Pack (QP) containing National Occupational Standards for the job role - Hand Spinning Operator</p> <p>The main purpose of the qualification and the target learners is to get unemployed people into work and to upgrade the skills of people already in work.</p> |
| <b>Body/bodies which will award the qualification</b>                                   | Textile Sector Skill Council (Textile SSC)  |
| <b>Body which will accredit providers to offer courses leading to the qualification</b> | Textile Sector Skill Council (Textile SSC)  |
| <b>Body/bodies which will carry out assessment of learners</b>                          | <ul style="list-style-type: none"> <li>• The Assessors Guilds</li> <li>• Cindrel Infotech Private Limited</li> <li>• Intouch Financial Services Pvt Ltd</li> <li>• PVR Skill Central Pvt Ltd.</li> </ul>  |
| <b>Occupation(s) to which the qualification gives access</b>                            | Spinning  |
| <b>Licensing requirements</b>   | N/A   |
| <b>Level of the qualification in the NSQF</b>   | Level - 3   |
| <b>Anticipated volume of training/learning required to complete the qualification</b>   | <p>300 hours – Traditional Charkha/ New Model Charkha</p> <p>330 hours – Solar operated New Model Charkha</p>   |
| <b>Entry requirements and/or recommendations</b>  | <p>Minimum Educational Qualifications - 5th Standard pass, preferably</p> <p>Experience–Not applicable</p> <p>Minimum Job Entry Age- 18 years</p>   |
| <b>Progression from the qualification</b>   | <p>This entry should refer to one or more of the following:</p> <ul style="list-style-type: none"> <li>- access to other qualifications at the same NSQF level - NA</li> <li>- access to related qualification(s) at the next NSQF level- (<a href="#">Annexure 1</a>)</li> </ul>             |
| <b>Planned arrangements for the Recognition of Prior learning (RPL)</b>                 | <p>Textile SSC is working along with Spinning industry for skill profiling of the existing work force in the industry. Arrangements and process guidelines are under development.</p> <p>The process and guidelines will take time to evolve and will incorporate NSDC guidelines on RPL.</p> |
| <b>International comparability where known</b>  | Not yet established   |
| <b>Date of planned review of the qualification.</b>                                     | 09/08/2020  |

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| <b>Formal structure of the qualification</b>                                   |                           |  |              |
|--|---------------------------|--|--------------|
| <b>Title of component and identification code.</b>                             | <b>Mandatory/Optional</b> | <b>Estimated size (learning hours)</b> | <b>Level</b> |
| <b>Electives (Mandatory to select one)</b>                                     |                           |  |              |
| 1. Traditional Charka Operator   |                           |  |              |
| TSC/N7901 Undertake spinning process by using new model charkha (NMC)          | M                         | 134                                    | 3            |
| 2. New Model Charka (NMC)  |                           |  |              |
| TSC/N7902 Undertake spinning process by using new model charkha (NMC)          | M                         | 134                                    | 3            |
| 3. Solar Operated New Model Charka   |                           |  |              |
| TSC/N7902 Undertake spinning process by using new model charkha (NMC)          | M                         | 134                                    | 3            |
| TSC/N7904 Operation and Maintenance of solar attachment                        | M                         | 30                                     | 3            |
| <b>Compulsory NOS</b>  |                           |  |              |
| TSC/N9005 Maintain work area and tools in handlooms sector                     | M                         | 33                                     | 3            |
| TSC/N9006 Working in a team in handloom sector                                 | M                         | 33                                     | 3            |
| TSC/N9007 Maintain health, safety and security at workplace in handloom sector | M                         | 67                                     | 3            |
| TSC/N9008 Comply with work place requirements in handloom sector               | M                         | 33                                     | 3            |

Please attach any document giving further detail about the structure of the qualification – e.g. a Curriculum Document or a Qualification Pack.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

1. QP TSC/Q7902– [Annexure 2](#)
2. Model Curriculum – [Annexure 6](#)

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## SECTION 1

### ASSESSMENT

**Body/Bodies which will carry out assessment:**

**If there will be more than one assessment body for this qualification, give details.**

- The Assessors Guilds
- Cindrel Infotech Private Limited
- Intouch Financial Services Pvt. Ltd.
- PVR Skill Central Pvt. Ltd.

**How will RPL assessment be managed and who will carry it out?**

**Give details of how RPL assessment for the qualification will be carried out and quality assured.**

Yes, the assessment body shall be responsible for RPL assessment.

In RPL, the candidate has acquired the skills and knowledge while working and requires assessment and certification only. RPL is the acknowledgement of skills and knowledge obtained through:

- formal training
- work experience
- life experiences

The focus of RPL is the competence gained from these experiences; not how, when or where the learning occurred.

Process or steps in RPL assessments

1. Offering RPL to potential candidates
2. Providing information to the candidate
3. Self-assessment
4. Evidence collation
5. Assessment and making the decision
6. Feedback to the candidate
7. Documentation of outcomes

**Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:**

- a) The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria.
- b) The assessment papers are developed by Subject Matter Experts (SME) available with the Assessment Agency as per the performance and assessment criteria mentioned in the Qualification Packs.
- c) The assessments papers are also checked for the various outcome based parameters such as quality, time taken, precision, tools & equipment requirement, etc.
- d) The assessments are designed so as to assess maximum parts during the practical hands on work. Duties and responsibility of a packing checker are also assessed. The technical limitations at the training centres are taken care in theory and viva.
- e) The assessment agencies are instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest independence from commercial and other interests that would compromise impartiality of the assessments.
- f) The assessment agencies are instructed to Ideally have assessor with right mix of industry experience, academia and these are detailed in Assessment Agency Protocol.
- g) The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to Assessment Framework, competency based assessments, assessors guide etc.
- h) The assessors are provided with assessor's guide developed by the Subject Matter Expert of the

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assessment agency or by TSC as per the assessment framework. The assessment guides are developed to ensure the maximum possible consistency / transparency in the assessment by different assessors and elaborate on the following

1. Qualification Pack Structure
2. Guidance for the assessor to conduct theory, practical and viva assessments
3. Guidance for trainees to be given by assessor before the start of the assessments.
4. Guidance on assessments process, practical brief with steps of operations practical observation checklist Attendance Sheet and mark sheet
5. Viva guidance for uniformity and consistency across the batch.
6. Guidance on assessment evidence collection

The assessment results are backed by evidences collected by assessors

1. The assessor needs to collect a copy of the attendance for the training done under the scheme. The attendance sheets are signed and stamped by the in charge /Head of the Training Centre.
2. The assessor needs to verify the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same needs to be mentioned in the attendance sheet. In case of suspicion, the assessor should authenticate and cross verify trainee's credentials in the enrolment form.
3. The assessor needs to take a photograph of all the students along with the centre name/ banner at the back as evidence.
4. The assessor needs to carry a camera to click photograph of the trainees working on the job and giving theory exam as evidence.
5. The assessor also needs to carry a photo ID card.
6. The assessor also needs to take the photographs as evidence from appropriate angles/ sides of the final work piece/job submitted by the trainee.
7. The details on assessment framework are elaborated in TSC Protocol for Accreditation of Assessment Agencies and Assessment Framework.

All accredited Assessment Agency follow the "TSC Protocol for Accreditation of Assessment Agencies and Assessment Framework". Each NOS in the Qualification Pack (QP) will be assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performance Criteria in the NOS will be assigned marks for or practical based on relative importance, criticality of function and training infrastructure.

Please attach any documents giving further information about assessment and/or RPL.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

1. Protocol for Accreditation of Assessment Agencies and Assessment Framework – [Annexure 4](#)
2. Format for EOI for AA Accreditation from TSC - [Annexure 5](#)

### ASSESSMENT EVIDENCE

**Complete a grid for each component as listed in "Formal structure of the qualification" in the Summary.**

*NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – i.e Learning Outcomes to be assessed, assessment criteria and the means of assessment.*

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### CRITERIA FOR ASSESSMENT OF TRAINEES

**Job Role: Hand Spinning Operator (Traditional Charkha/ New Model Charkha/ Solar operated New Model Charkha)**

**Qualification Pack: TSC/Q7901**

**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. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/ option NOS/ set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% in aggregate marks to successfully clear the assessment
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

#### **Compulsory :**

| <b>Total Marks :<br/>250</b>                                 | <b>Compulsory NOS</b>  |                    |               | <b>Marks Allocation</b> |                         |
|--|--|--------------------|---------------|-------------------------|-------------------------|
| <b>Assessable Outcomes</b>                                   | <b>Assessment Criteria</b>   | <b>Total Marks</b> | <b>Out of</b> | <b>Theroy</b>           | <b>Skills Practical</b> |
| TSC/N9005<br>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                       |

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| Total Marks :<br>250                              | Compulsory NOS  |              |           | Marks Allocation |                  |
|---|---|--------------|-----------|------------------|------------------|
| Assessable Outcomes                               | Assessment Criteria   | Total Marks  | Out of    | Theroy           | Skills Practical |
|   | 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                |
|   |   | <b>Total</b> | <b>50</b> | <b>19</b>        | <b>31</b>        |
| TSC/N9006<br>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                |
|   |   | <b>Total</b> | <b>50</b> | <b>20</b>        | <b>30</b>        |

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| Total Marks :<br>250   | Compulsory NOS   |             |        | Marks Allocation |                  |
|--|--|-------------|--------|------------------|------------------|
| Assessable Outcomes  | Assessment Criteria  | Total Marks | Out of | Theory           | Skills Practical |
| TSC/N9007<br>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                |



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| <b>Total Marks :<br/>250</b>  | <b>Compulsory NOS</b>   |                    |               | <b>Marks Allocation</b> |                         |
|---|---|--------------------|---------------|-------------------------|-------------------------|
| <b>Assessable Outcomes</b>  | <b>Assessment Criteria</b>  | <b>Total Marks</b> | <b>Out of</b> | <b>Theory</b>           | <b>Skills Practical</b> |
|   | 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                       |
|   |   | <b>Total</b>       | <b>100</b>    | <b>33</b>               | <b>67</b>               |
| TSC/N9008<br>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                       |
|   |   | <b>Total</b>       | <b>50</b>     | <b>19</b>               | <b>31</b>               |

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| ELECTIVES  |  |             |        |                |                  |
|--|--|-------------|--------|----------------|------------------|
| Elective 1. Traditional Charka Operator                        |  |             |        |                |                  |
| Total Marks: 200   |  |             |        | Marks Allotted |                  |
| Assessable Outcomes  | Assessment Criteria  | Total Marks | Out of | Theory         | Skills Practical |
| TSC/N7901<br>Undertake spinning process by traditional charkha | PC1. identify and select from various types of fibers for charkha spinning   | 200         | 10     | 3              | 7                |
|  | PC2. comb the kapas to aerate the fiber smoothly by hand using fish jaw brush/to separate all other fibers use suitable combing device such as metal comb. |             | 20     | 6              | 14               |
|  | PC3. undertake ginning process of the kapas manually using an iron rod   |             | 20     | 6              | 14               |
|  | PC4. clean and fluff out ginned cotton using handmade bow  |             | 10     | 3              | 7                |
|  | PC5. perform parallization of fibers manually  |             | 20     | 6              | 14               |
|  | PC6. perform separation of the fibers using manually operated carding machine  |             | 10     | 3              | 7                |
|  | PC7. carry out slivering of the fibers using a tapered wooden stick  |             | 10     | 3              | 7                |
|  | PC8. roll the sliver suitably to carry out spinning  |             | 10     | 3              | 7                |
|  | PC9. calculate the desired yarn count  |             | 10     | 3              | 7                |
|  | PC10. add leader to the spindle to start the spinning process  |             | 10     | 3              | 7                |
|  | PC11. identify the different basic positions for spindle spinning  |             | 10     | 3              | 7                |
|  | PC12. wind the thread on the spindle tip   |             | 10     | 3              | 7                |
|  | PC13. add twist to strengthen and compress the drafted yarn into thin strand   |             | 10     | 3              | 7                |
|  | PC14. spin the yarn under supervision at a comfortable rate until the fibers lock together   |             | 10     | 3              | 7                |

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|--|--|--------------------|---------------|-----------------------|-------------------------|
|  | PC15. draft the cotton off the leader  |                    | 10            | 3                     | 7                       |
|  | PC16. Convert the spun yarn into hank  |                    | 10            | 3                     | 7                       |
|  | PC16. wind in a criss-cross winding pattern using hand and feet to prepare the hank  |                    | 10            | 3                     | 7                       |
|  |  | <b>Total</b>       | <b>200</b>    | <b>60</b>             | <b>140</b>              |
| <b>ELECTIVES</b>   |  |                    |               |                       |                         |
| <b>Elective 2. New Model Charka Operator</b>                             |  |                    |               |                       |                         |
| <b>Total Marks: 200</b>  |  |                    |               | <b>Marks Allotted</b> |                         |
| <b>Assessable Outcomes</b>   | <b>Assessment Criteria</b>   | <b>Total Marks</b> | <b>Out of</b> | <b>Theory</b>         | <b>Skills Practical</b> |
| TSC/N7902<br>Undertake spinning process by using new model charkha (NMC) | PC1. ensure that the drive belt in the new model charkha allows the flyer to move freely                                       | 200                | 15            | 3                     | 12                      |
|  | PC2. adjust the break (draw-in) to rest on the bobbin  |                    | 10            | 3                     | 7                       |
|  | PC3. ensure that the size of the wheel is inversely proportional to the diameter of the whorl for faster movement of the flyer |                    | 15            | 5                     | 10                      |
|  | PC4. identify and select from various types of fibers for charkha spinning   |                    | 15            | 5                     | 10                      |
|  | PC5. fluff out commercial cotton roving to aerate the fiber smoothly   |                    | 10            | 3                     | 7                       |
|  | PC6. Perform the creeling of roving bobbin   |                    | 10            | 3                     | 7                       |
|  | PC7. calculate the desired yarn count  |                    | 10            | 3                     | 7                       |
|  | PC8. wind the thread on the spindle tip  |                    | 10            | 3                     | 7                       |
|  | PC9. adjust the cot and apron to provide uniform pressure on the fibre strand to facilitate efficient drafting                 |                    | 15            | 5                     | 10                      |
|  | PC10. check aprons have better grip & control on fibres particularly floating fibres   |                    | 10            | 3                     | 7                       |
|  | PC11. use the ring to guide the circular run of the traveller  |                    | 10            | 3                     | 7                       |
|  | PC12. ensure the traveller twist the drafted   |                    | 15            | 5                     | 10                      |

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|  |  |              |            |           |            |
|--|--|--------------|------------|-----------|------------|
|  | strand of fibres, winds yarn onto the bobbin, maintains winding tension of the yarn by the frictional resistance between the ring and traveller                |              |            |           |            |
|  | PC13. check the creel holds the roving bobbin over a roller beam within a convenient height to easily handle the roving  |              | 10         | 3         | 7          |
|  | PC14. ensure the spindle holds the bobbin tight enough to prevent any slippage, and winds the twisted thread on the bobbin with the help of ring and traveller |              | 15         | 4         | 11         |
|  | PC15. add twist per inch if thread keeps drifting apart (breaking)   |              | 10         | 3         | 7          |
|  | PC16. ensure the twist does not get into the drafting area   |              | 10         | 3         | 7          |
|  | PC17. change the hooks frequently to avoid thread pile up in one spot on the bobbin  |              | 10         | 3         | 7          |
|  |  | <b>Total</b> | <b>200</b> | <b>60</b> | <b>140</b> |

### ELECTIVES

#### Elective 3. Solar Operated New Model Charka

**Total Marks: 250**

**Marks Allotted**

| Assessable Outcomes   | Assessment Criteria  | Total Marks | Out of | Theory | Skills Practical |
|---|--|-------------|--------|--------|------------------|
| TSC/N7902 Undertake spinning process by using new model charkha (NMC) | PC1. ensure that the drive belt in the new model charkha allows the flyer to move freely                                       | 200         | 15     | 3      | 12               |
|   | PC2. adjust the break (draw-in) to rest on the bobbin  |             | 10     | 3      | 7                |
|   | PC3. ensure that the size of the wheel is inversely proportional to the diameter of the whorl for faster movement of the flyer |             | 15     | 5      | 10               |
|   | PC4. identify and select from various types of fibers for charkha spinning   |             | 15     | 5      | 10               |
|   | PC5. fluff out commercial cotton roving to aerate the fiber smoothly   |             | 10     | 3      | 7                |

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|---|--|--------------|------------|-----------|------------|
|   | PC6. Perform the creeling of roving bobbin   |              | 10         | 3         | 7          |
|   | PC7. calculate the desired yarn count  |              | 10         | 3         | 7          |
|   | PC8. wind the thread on the spindle tip  |              | 10         | 3         | 7          |
|   | PC9. adjust the cot and apron to provide uniform pressure on the fibre strand to facilitate efficient drafting   |              | 15         | 5         | 10         |
|   | PC10. check aprons have better grip & control on fibres particularly floating fibres   |              | 10         | 3         | 7          |
|   | PC11. use the ring to guide the circular run of the traveller  |              | 10         | 3         | 7          |
|   | PC12. ensure the traveller twist the drafted strand of fibres, winds yarn onto the bobbin, maintains winding tension of the yarn by the frictional resistance between the ring and traveller |              | 15         | 5         | 10         |
|   | PC13. check the creel holds the roving bobbin over a roller beam within a convenient height to easily handle the roving  |              | 10         | 3         | 7          |
|   | PC14. ensure the spindle holds the bobbin tight enough to prevent any slippage, and winds the twisted thread on the bobbin with the help of ring and traveller                               |              | 15         | 4         | 11         |
|   | PC15. add twist per inch if thread keeps drifting apart (breaking)   |              | 10         | 3         | 7          |
|   | PC16. ensure the twist does not get into the drafting area   |              | 10         | 3         | 7          |
|   | PC17. change the hooks frequently to avoid thread pile up in one spot on the bobbin  |              | 10         | 3         | 7          |
|   |  | <b>Total</b> | <b>200</b> | <b>60</b> | <b>140</b> |
| TSC/N7904<br>Operation and<br>Maintenance of<br>solar<br>attachment | PC1. Clear the weed/ Grass near the solar panels if any  | 50           | 3          | 1         | 2          |
|   | PC2. Clean the surface of the solar panel for dust with wet sponge/cloth   |              | 3          | 1         | 2          |
|   | PC3. Ensure the Charge controller, Batteries are working properly as instructed  |              | 3          | 1         | 2          |

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|  |   |              |           |           |           |
|--|---|--------------|-----------|-----------|-----------|
|  | PC4. Prepare Solar powered Handloom/ Khadi machine for operation                                      |              | 4         | 1         | 3         |
|  | PC5. Switch on the main motor and start the machine for production                                    |              | 3         | 1         | 2         |
|  | PC6. Check periodically for the working of light indicators and display panel for voltage fluctuation |              | 5         | 2         | 3         |
|  | PC7. Ensure that the battery is kept at a dry place   |              | 4         | 1         | 3         |
|  | PC8. Check the Electrolyte level of battery and top up the electrolyte whenever required              |              | 5         | 2         | 3         |
|  | PC9. Check for electrolyte/ Distilled water leak from batteries                                       |              | 5         | 2         | 3         |
|  | PC10. Clean the battery at prescribed intervals for fluff accumulation                                |              | 3         | 1         | 2         |
|  | PC11. Clean the inverter, Battery Charger and Charge controller for fiber dust                        |              | 3         | 1         | 2         |
|  | PC12. Inspect and ensure the cleanliness of panel boxes   |              | 3         | 1         | 2         |
|  | PC13. Use Personal Protective Equipments while topping up of Distilled water and cleaning             |              | 3         | 1         | 2         |
|  | PC14. Use appropriate tools such as cloth, brush for to various parts of the power system             |              | 3         | 1         | 2         |
|  |   | <b>Total</b> | <b>50</b> | <b>17</b> | <b>33</b> |

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### Means of 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.

The assessment for the theory part will be based on knowledge bank of questions created by the SSC. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria.

### Means of assessment 2

Add boxes as required.

### Pass/Fail

To pass the Qualification Pack, every trainee should score a minimum of 50% in aggregate.

The marks are allocated PC wise, however, every NOS will carry a weightage in the total marks allocated to the specific QP.

## SECTION 2

### EVIDENCE OF LEVEL

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### OPTION B

| Title/Name of qualification/component: <b>Hand Spinning Operator</b> |   | Level: <b>3</b>  |            |
|--|---|--|------------|
| NSQF Domain  | Key requirements of the job role  | How the job role relates to the NSQF level descriptors   | NSQF Level |
| Process  | <p><b><u>Work is familiar, predictable and routine:</u></b></p> <ul style="list-style-type: none"> <li>• identify and select from various types of fibers for charkha spinning</li> <li>• fluff out commercial cotton roving to aerate the fiber smoothly</li> <li>• card cotton into rolags or punis using hand/carding machines</li> <li>• calculate the yarn count</li> <li>• wind the thread on the spindle tip</li> <li>• use the ring to guide the circular run of the traveller</li> </ul> | <p>As mentioned in the various performance criteria mentioned in the previous cell, the Hand Spinning Operator works in familiar, predictable, and routine situation</p> <p>Hence NSQF Level is 3</p>  | 3          |
| Professional knowledge   | <p><b><u>Factual knowledge of the field:</u></b></p> <ul style="list-style-type: none"> <li>• various types of fiber</li> <li>• cotton roving</li> <li>• carding and sliving</li> <li>• spindle spinning process</li> <li>• drafting and twisting method</li> <li>• yarn count and its different method—indirect and direct</li> <li>• factors considered for the selection of traveller</li> <li>• specifications of traveller</li> </ul>  | <p>As mentioned in the various knowledge and understanding criteria mentioned in the previous cell, the Hand Spinning Operator requires factual knowledge of field.</p> <p>Hence NSQF Level is 3</p>   | 3          |
| Professional skill   | <p><b><u>Recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool:</u></b></p> <ul style="list-style-type: none"> <li>• ensure that the drive belt in the new model charkha allows the flyer to move freely</li> <li>• adjust the break (draw-in) to rest on the bobbin</li> <li>• ensure that the size of the wheel is inversely proportional to</li> </ul>  | <p>As mentioned in the various performance criteria mentioned in the previous cell, the Hand Spinning Operator is able to recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool.</p> <p>Hence NSQF Level is 3</p> | 3          |



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| Title/Name of qualification/component: <b>Hand Spinning Operator</b> |   | Level: <b>3</b>   |            |
|--|---|---|------------|
| NSQF Domain  | Key requirements of the job role  | How the job role relates to the NSQF level descriptors  | NSQF Level |
|  | <p>the diameter of the whorl for faster movement of the flyer</p> <ul style="list-style-type: none"> <li>• adjust the cot and apron to provide uniform pressure on the fibre strand to facilitate efficient drafting</li> <li>• check aprons have better grip &amp; control on fibres particularly floating fibres</li> <li>• ensure the traveller twist the drafted strand of fibres, winds yarn onto the bobbin, maintains winding tension of the yarn by the frictional resistance between the ring and traveller</li> <li>• check the creel holds the roving bobbin over a roller beam within a convenient height to easily handle the roving</li> <li>• ensure the spindle holds the bobbin tight enough to prevent any slippage, and winds the twisted thread on the bobbin with the help of ring and traveller</li> <li>• add twist per inch if thread keeps drifting apart (breaking)</li> <li>• ensure the twist does not get into the drafting area</li> <li>• change the hooks frequently to avoid thread pile up in one spot on the bobbin</li> </ul> |   |            |
| Core skill   | <p><b><u>Language to communicate written or oral, with required clarity, skill to basic arithmetic and algebraic principles:</u></b></p> <ul style="list-style-type: none"> <li>• write local or English language for recording production, quality related information, numbering, and maintenance of related information and materials, etc.</li> <li>• communicate with co-workers appropriately</li> <li>• talk effectively to convey information succinctly and unequivocally</li> <li>• listen effectively and orally communicate information</li> </ul>  | <p>As mentioned in the various performances, Knowledge and Skills criteria mentioned in the previous cell, the Hand Spinning Operator is able to use language to communicate written or oral, with required clarity, and requires a basic arithmetic and algebraic principle skills.</p> <p>Hence NSQF Level is 3</p> | 3          |

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| Title/Name of qualification/component: <b>Hand Spinning Operator</b> |  | Level: <b>3</b>   |            |
|--|--|---|------------|
| NSQF Domain  | Key requirements of the job role   | How the job role relates to the NSQF level descriptors  | NSQF Level |
|  | <p>accurately</p> <ul style="list-style-type: none"> <li>ask for clarification and advice from others</li> <li>communicate politely</li> <li>standard Operating Procedures (SOP) and regulations in the cooperative society/NGO/SHG</li> <li>follow environment management system related procedures</li> <li>identify different kinds of possible hazards (environmental, personal, ergonomic and chemical) of the industry</li> </ul>  |   |            |
| Responsibility   | <p><b>Responsibility for own work and learning:</b></p> <ul style="list-style-type: none"> <li>own job role and responsibilities and sources for information pertaining to employment terms, compensation, job role and responsibilities</li> <li>plan and organize own work in a way that all activities are completed in time and as per specifications</li> <li>take responsibility for own actions</li> <li>carry out cleaning according to schedule and limits of responsibility</li> <li>focus on self-learning and improvement</li> <li>take initiative and innovate the existing methods</li> <li>plan and organize your work to achieve targets and deadlines</li> <li>undertake first aid, fire-fighting and emergency response training, if asked to do so</li> <li>take action based on instructions in the event of fire, emergencies or accidents</li> <li>plan and organize your work to achieve targets and deadlines</li> </ul> | <p>As mentioned in the various Points mentioned in the previous cell, the Hand Spinning Operator demonstrates responsibility for own work and learning.</p> <p>All performance criteria mentioned in the Qualification Pack are responsibilities of an Hand Spinning Operator however certain important PCs are depicted here.</p> <p>Hence NSQF Level is 3</p> | 3          |

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### SECTION 3

#### EVIDENCE OF NEED

##### What evidence is there that the qualification is needed?

Please refer to the attached list of job roles and occupations as per the attachment and their career paths as per [Annexure 1](#), which have been derived through extensive interactions with stakeholders including Spinning cluster core actors through 2 workshops, emails, one-on-one discussions and interactions with representatives from different Cluster/Associations / Organizations all over the country who participated in the validation process to make the Qualification Packs viable to the current industry requirements.

##### List of Organizations/Industry Experts involved in the Validation process for the QP

| Organizations/ Industry Experts | State          | Organizations/ Industry Experts | State          | Organizations/ Industry Experts | State          |
|---------------------------------|----------------|---------------------------------|----------------|---------------------------------|----------------|
| N Haribabu                      | Andhra Pradesh | K Srinivasa Rao                 | Andhra Pradesh | J Venkata Rao                   | Andhra Pradesh |
| G Sattemma                      | Andhra Pradesh | G Chinnamni                     | Andhra Pradesh | J Janardana Rao                 | Andhra Pradesh |
| J Draksayani                    | Andhra Pradesh | G Naga Bhushna Rao              | Andhra Pradesh | J KarunaKumari                  | Andhra Pradesh |
| P Venugopal Rao                 | Andhra Pradesh | D Chittemma                     | Andhra Pradesh | J Papa Rao                      | Andhra Pradesh |
| A Krishna Rao                   | Andhra Pradesh | J Sarada                        | Andhra Pradesh | S Samba Murty                   | Andhra Pradesh |
| M Ananda Rao                    | Andhra Pradesh | J Santamma                      | Andhra Pradesh | K Ramesh                        | Andhra Pradesh |
| G Satyavati                     | Andhra Pradesh | A Rupavathi                     | Andhra Pradesh | N Sujatha                       | Andhra Pradesh |
| M Verabhadrappa                 | Andhra Pradesh | M Krishna Rao                   | Andhra Pradesh | A Sridevi                       | Andhra Pradesh |
| M Sivannarayana                 | Andhra Pradesh | B SitaRamayya                   | Andhra Pradesh | G Appala Raju                   | Andhra Pradesh |
| J Krishna Murty                 | Andhra Pradesh | L Lakshmi                       | Andhra Pradesh | M Suresh Babu                   | Andhra Pradesh |
| A Krishna Rao                   | Andhra Pradesh | D.V.Ratnam                      | Andhra Pradesh | G Suri Babu                     | Andhra Pradesh |
| B Venkatappa Rao                | Andhra Pradesh | B.VarabhadrappaSwamy            | Andhra Pradesh | A Mohana Rao                    | Andhra Pradesh |
| K Mohana Rao                    | Andhra Pradesh | D Krishna Rao                   | Andhra Pradesh | M Alivelu                       | Andhra Pradesh |
| K Appa Rao                      | Andhra Pradesh | M Srinivasa Rao                 | Andhra Pradesh | K Lakshmi                       | Andhra Pradesh |
| K Lakshmi                       | Andhra Pradesh | V Mokha Lingam                  | Andhra Pradesh | S Rajeshwari                    | Andhra Pradesh |
| N Lakshmana Rao                 | Andhra Pradesh | G Narayana Rao                  | Andhra Pradesh |                                 |                |

##### What is the estimated uptake of this qualification and what is the basis of this estimate?

The incremental human resource requirement between 2008 and 2022 is 0.7 million people under Textile Sector. This estimate has been drawn on basis of the NSDC report on Human Resource and Skill Requirements in Textiles Sector. Refer to Page 57: [Annexure 3](#)

##### What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the

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### NSQF?

QPs for Job Roles of various related SSC's were studied to ensure that there is no duplicity

### **What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?**

The Qualification Pack has been developed based on stakeholder engagement through workshops held at various Textile clusters and one on one discussions with core cluster stakeholders. The inputs and feedbacks given by them were incorporated while drafting the QP. The QP would be revised in six months (25<sup>th</sup> August, 2018) or before in case of any critical or necessary inputs received.

Please attach any documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

NSDC report on Human Resource and Skill Requirements in Textiles Sector – [Annexure 3](#)

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## SECTION 4

### EVIDENCE OF PROGRESSION

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?**

Please refer to attached career path as per [Annexure 1](#) which clearly defines the career path. While designing the national occupational standards, occupational mapping was done on a large sample size and validated across the country. The career progression for roles in each occupation was also analysed and decided, based on industry validation across the country. The current challenges faced by the industry, at large, was also kept in mind.

Please attach any documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

1. Career Path of Hand Spinning Operator - [Annexure 1](#)
2. TSC/Q7902- [Annexure 2](#)
3. Skill gap report for textile sector – “NSDC report on Human Resource and Skill Requirements in Textiles Sector” - [Annexure 3](#)
4. Protocol-for-Accreditation-of-Assessment-Agencies-and-Assessment-Framework- [Annexure 4](#)
5. Format for EOI for AA Accreditation from TSC - [Annexure 5](#)
6. Model Curriculum - [Annexure 5](#)

Further contact details and a copy of the validation are submitted both with NSDC and NSDA

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### **Annexure 1**

The career progression is given in following link (Click on the icon to view career progression)



**OP Handloom &  
Khadi.pdf**

### **Annexure 2**

**QP Name – Hand Spinning Operator**



**TSCQ7901\_Hand  
Spinning Operator.i**

**QP reference ID- TSC/Q7901 (click on the icon to view the QP)**

## **NSQF QUALIFICATION FILE GUIDANCE**

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### **Annexure 3**

**Click the link - NSDC report on Human Resource and Skill Requirements in Textiles Sector.**



Skill Gap Analysis Report for Textile and Clothing Industry \_ Report on Human Resource and Skill Requirements in Textile and Clothing Sector.pdf

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## Annexure 4

Click on the icon to view – Protocol-for-Accreditation-of-Assessment-Agencies-and-Assessment-Framework



protocol.pdf



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### Annexure 5

Click on the icon to view – Format for EOI for AA Accreditation from TSC



format for EOI for application as assessor to TSC.pdf

### Annexure 6

Click on the icon to view – “Model Curriculum of Hand Spinning Operator”



Rev\_MC\_Hand  
Spinning Operator.i