

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name of the Submitting Body:

Rashtriya Madhyamik Shiksha Abhiyan (RMSA-Maharashtra) in collaboration with Lend A Hand India

Address:

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Name and address of submitting body:

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Name and contact details of individual dealing with the submission

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Same as above

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List of documents submitted in support of the Qualifications File

1. Career Map for **Multi Skill Assistant Technician**
2. Curriculum along with detailed criteria for knowledge and performance evaluation mapped against the learning outcome
3. Evidence of uptake
4. Case Studies

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

QUALIFICATION FILE SUMMARY

Qualification Title	Multi Skill Assistant Technician
Body/bodies which will award the qualification	Maharashtra State Board of Secondary and Higher Secondary Education
Body which will accredit providers to offer courses leading to the qualification	Maharashtra State Board of Secondary and Higher Secondary Education
Body/bodies which will carry out assessment of learners	Independent assessors/Assessment agency empanelled by Maharashtra State Board of Secondary and Higher Secondary Education
Occupation(s) to which the qualification gives access	Multi Skill – (1) Fabricator (2) Electrician (3) Food Processing Technician (4) Gardener and Nursery Raiser (5) Automotive Service Technician
Licensing requirements	Minimum age 16 years
Level of the qualification in the NSQF	2
Anticipated volume of training/learning required to complete the qualification	400 Hours
Entry requirements and/or recommendations	8 th Pass
Progression from the qualification	<p>After acquiring “Multi Skill Assistant Technician” qualification, the trainee will be able to pursue any one or more of the following qualifications</p> <ol style="list-style-type: none"> 1. Multi Skill Technician (Fabrication) 2. Multi Skill Technician (Electrical) 3. Multi Skill Technician (Food Processing) 4. Gardener cum Nursery Raiser 5. Automotive Service Technician 5. Fabricator or Construction Welder MIG/TIG/SMAW (NSQF Level 4) 6. Diploma or Degree in Engineering, Home Science, Agriculture 7. ITI
Planned arrangements for the Recognition of Prior learning (RPL)	None
International comparability where known	Not known
Formal structure of the qualification	<p>The entries made here will show how the qualification is designed for delivery and assessment. It will list the components of the qualification, where the learning outcomes to be assessed are grouped together.</p>

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

Title of component and identification code.	Mandatory/ Optional	Estimated size (learning hours)	Level
MSFC-WET101- NQ2015-L1: Basic Workshop Tools and Techniques	Mandatory	30	1
MSFC-WET102- NQ2015-L1: Basic Techniques in Building Construction	Mandatory	20	1
MSFC-EE201-NQ2015-L1: Introduction to Electrical Techniques and Practices	Mandatory	30	1
MSFC-EE202-NQ2015-L1: Introduction to Energy Conservation	Mandatory	10	1
MSFC-EE203-NQ2015-L1: Introduction to Waste Disposal and Recycling	Mandatory	10	1
MSFC-GNA301 - NQ2015-L1: Introduction to Basics of Gardening, Nursery and Agriculture Techniques	Mandatory	40	1
MSFC-GNA302A - NQ2015-L1: Introduction to Animal Husbandry MSFC-GNA302B - NQ2015-L1: Innovative Gardening Techniques for urban setting	Mandatory	10	1
MSFC-FP401-NQ2015-L1: Basic Food Cooking and Preservation Techniques	Mandatory	40	1
MSFC-FP402-NQ2015-L1: Basic of Nutrition & Packaging	Mandatory	10	1
MSFC-WET101- NQ2015-L2: Basic Workshop Tools and Techniques	Mandatory	20	2
MSFC-WET102- NQ2015-L2: Basic Techniques in Building Construction	Mandatory	30	2
MSFC-EE201-NQ2015-L2: Introduction to Electrical Techniques and Practices	Mandatory	30	2
MSFC-EE202-NQ2015-L2: Introduction to Energy Conservation	Mandatory	10	2
MSFC-EE203-NQ2015-L2: Introduction to Waste Disposal and Recycling	Mandatory	10	2
MSFC-NGA301 - NQ2015-L2: Introduction to	Mandatory	40	2

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

Nursery Techniques			
MSFC-NGA302 - NQ2015-L2: Introduction to Dairy Technology	Mandatory	10	2
MSFC-PHH401- NQ2015-L2 : Introduction to Health and Wellness	Mandatory	30	2
MSFC-PHH402- NQ2015-L2 : Community and Environment Care	Mandatory	20	2

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

Curriculum along with detailed criteria for knowledge and performance evaluation mapped against the learning outcome is attached

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

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

SECTION 1

ASSESSMENT

Body/Bodies which will carry out assessment:

Independent assessors/Assessment agency empanelled by Maharashtra State Board of Secondary and Higher Secondary Education

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

Not Applicable.

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

Note that the strategy and arrangements will have to align with national guidance assessment policy (eg in NQAF Manuals 1 (NQS Registration of Qualifications) and 3 (Accreditation of Assessment Bodies).

The emphasis is on practical demonstration of skills & knowledge based on the performance criteria. Each OUTCOME is assessed & marked separately. Student is required to pass in all OUTCOMES individually and marks are allotted. Following assessment methodologies are used.

- A. Written Assessment
- B. Practical Assessment
- C. Viva Voce Assessment

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.

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

ASSESSMENT EVIDENCE

In this section, you are asked to show how the assessment tools you will use will cover all the outcomes and criteria in the qualification.

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the State Board. The Board will also lay down proportion of marks for Theory and Skills Practical for each component.
2. The assessment for the knowledge part will be based on knowledge bank of questions created by The Board.
3. The Board will prepare unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. The Board will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage will be 35%.
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.

Scheme of Marks

S.No.	Method of Assessments	Weightage	Evaluator
1.	Theory Paper	30	School / The State Board
2.	Practical Exam	30	Certified Assessor #
3.	Term Work	10	School Instructor / trainer
4.	Project Work	10	School Instructor / trainer
5.	Oral / Viva Vocu	10	Certified Assessor #
6.	Direct Observation (safety measures, cleanliness, care of tools and equipment during the examination)	10	Certified Assessor #
Total		100	

Assessors will be certified by the State Education Board.

1. **Theory Paper:** It allows candidates to demonstrate that they have the knowledge and understanding of a given topic.
2. **Practical Exam:** It allows candidates to demonstrate application of skills in simulated or real work conditions against competency standards (skill and academic standards).
3. **Term Work:** It is a compilation of documents that supports the candidate's claim of competence that was acquired from prior learning and experience. Documents (including photo's, newspaper

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

articles, reports, etc.) of practical experience in the workplace or the community and photographs of the products prepared by the candidates related to the units of competency should be included in the portfolio.

4. **Project Work:** Projects (individual or group projects) are a great way to assess the practice skills on a deadline, but these should be given on the basis of the capability of the individual to perform the tasks or activities involved in the project. Projects should be discussed in the class and the teacher should periodically monitor the progress of the project and provide feedback for improvement and innovation.
5. **Oral / viva voce:** It allows candidates to demonstrate communication skills and content knowledge. Audio or video recording can be done at the time of oral test or viva voce.
6. **Direct Observation** – Safety measures, cleanliness, care of tools and equipment during the practical examination

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

SECTION 2

EVIDENCE OF LEVEL

Awarding bodies will enter a proposed NSQF level for the qualification in the Qualification File Summary. This section asks for the evidence on which that proposal is based. The evidence must refer to the level descriptors of the NSQF.

NSDA recommends an approach to working out the level of qualifications which starts with the level descriptor domains (Process, Professional knowledge, Professional skill, Core skill and Responsibility: see annex A). Two variants for providing the evidence of level are offered here: Option A and Option B in the following pages. Awarding bodies should choose the option which best suits the qualification.

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

OPTION A

Title/Name of qualification/component: Enter the title here		Level: Add level number	
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
Process			
Professional knowledge			
Professional skill			
Core skill			
Responsibility			

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

OPTION B

Title/Name of qualification/component: Multi Skill Assistant Technician		Level: 2	
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Process	A Multi Skill Assistant Technician's responsibility is to identify relevant tools and equipment, know its application, understand the safety requirement and assist to perform a task.	<p>The job holder is responsible assist for various activities like welding, carpentry, plumbing, preparing food products, electrical wiring, gardening and nursery running etc. This involves working in predictable, routine situations with a limited range of activities such as carrying out preparatory works.</p> <p>As the job requires person to/carry out processes that are repetitive, on a regular basis, with little application of understanding, more of practice hence level 2</p>	2
Professional knowledge	<p>A Multi Skill Assistant Technician should know the following:</p> <ul style="list-style-type: none"> - Basic Workshop Tools and Techniques - Basic Techniques in Building Construction - Basic Electrical Techniques, Practices, Energy Conservation, Waste Disposal and Recycling - Basics of Gardening, Nursery and Agriculture Techniques - Basic Food Cooking and Preservation Techniques - Basics of Nutrition & Packaging - Basics of Health and Wellness - Safety rules and regulations, using safety gear and equipment for personal protection, whom to approach for support in order to obtain work related instructions, clarifications and support, relevant people and their responsibilities within the work area. 	The job holder is expected to have basic knowledge of the material, tools and applications in a limited context, is required to understand context of work and quality. These are basic facts of the field; the role qualifies for Level 2.	2

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

Title/Name of qualification/component: Multi Skill Assistant Technician			Level: 2
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Professional skill	A Multi Skill Assistant Technician on the job demonstrate practical skills by assisting for various activities. For instance, the job holder has to help plan work activities for self and request for appropriate tools and consumables accordingly, understand the settings of various parameters of the tools and equipment as per job requirement, understand the correct posture for the activity, understand which fire protection tools and equipment to use based upon the type of fire.	The job holder is expected to carry out routine and repetitive activities in a narrow range of application, using appropriate rules and tools, prepare and maintain work area and process machineries, ensure basic safety measures, Limited service skills used in limited context; select and apply tools; assist in professional works with no variables; differentiate good and bad quality. All these activities are mostly repetitive and have a narrow range of application, hence qualifying the role for a Level 2.	2
Core skill	A Multi Skill Assistant Technician on the job should have some core skills for performing the job which includes writing skills, reading skills, and oral and communication skills. For example, discuss task lists, schedules and activities, effectively communicate with team members, question in order to understand the nature of the problem and to clarify queries, attentively listen and comprehend the information given by the speaker, communicate clearly on the issues being faced.	The job holder is expected to receive and transmit written and oral messages, understanding of basic arithmetic, personal financing, understanding of social, political, and religious diversity, hygiene and environment. For instance, s/he should be able to read various, sign boards, safety rules and safety tags, instructions related to exit routes during emergency at the workplace, effectively communicate with team members. Hence, this role qualifies for Level 2.	2
Responsibility	A Multi Skill Assistant Technician's main responsibility is to assist and perform a supporting role. They do not have any independent responsibility.	The job holder is not expected to be responsible for any tasks/deliverable independently on his/her own; He/she is expected to work under instruction and close supervision. Hence, this role qualifies for Level 2.	2

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

SECTION 3

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

The qualification of “Multi Skill Assistant Technician” is supposed to provide foundation/basic level of work preparedness for the candidate which will be most applicable in MSME sector and encourage entrepreneurship.

Given the slowdown in employment growth post 2012 (only 135,000 jobs were created in 2015, as opposed to 7 million in 2012*) and the predominance of the informal sector (92% of employment is in the unorganised sector**), skills and livelihood development programmes cannot succeed unless more jobs can be created and entrepreneurs, as job-creators, are best placed to do so.

It is estimated that in terms of value, the MSME sector in India accounts for about 45% of the manufacturing output and around 40% of the total export of the country, employing 60 million people and creating 1.3 million jobs every year. The MSME sector has significant employment potential as the labour intensity in the MSME sector is estimated to be considerably higher than large enterprises. Hence, the MSME sector provides one of the most viable avenues for absorbing the youth being skilled.

No entrepreneur is a single skill person. By very definition, an entrepreneur has to be multi-skilled. Hence, any effort for MSME, will have to focus on Multi Skill approach as no micro or small enterprise can not afford to hire specialized labor for one skill vs. another. For e.g. in typical small engineering workshop, the same technician will have to know fitting, fabrication, welding as well as basic electrical. Hence, skill development efforts should bring related skills in a given category together under job role. Similarly, one person knowing basics of masonry , plumbing, electrical will be ideally suitable for entrepreneurship.

*Santosh Mehrotra, “Job Growth at a Snail’s pace,” The Hindu, May 2016, accessed 11 January 2017, <http://www.thehindu.com/opinion/op-ed/jobgrowth-at-a-snails-pace/article8581472.ece>

**Prof. Dinesh Awasthi “Micro Enterprise Development Strategy: A Tool for Sustainable Development”, (paper presented at SRISTI, 17 November 2016).

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

This course will be offered in schools in States where the Multi-skill curriculum is already running. As of now, the course is running in around 400 schools in Maharashtra. The estimate is that around 2000-4000 students will be undergoing this certification in the next 2-3 years in Maharashtra alone.

Close to 90,000 man-days of skilled and semi-skilled labour are required for every USD 1 million of construction expense. As per survey the incremental Manpower Gap between 2008 and 2022 found out to be 473000 under Fabrication Occupation.

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

No such multi skill job role exist currently in the National Skills Qualification Register except “Rural Mason” which is mainly focusing on construction sector.

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

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 is to be monitored and reviewed every three years.

The following data will be used

1. Results of assessments
2. Employer feedback will be sought post-placement
3. Industry Requirements

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

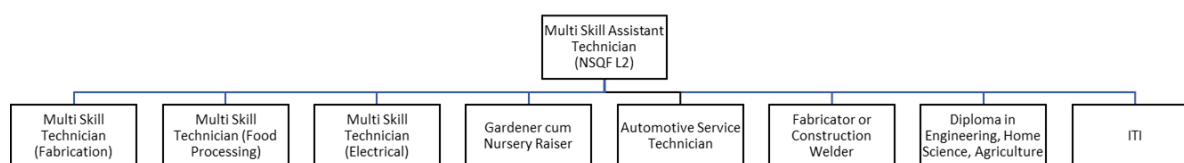
Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

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?

This qualification comprises both technical and analytic skills and can be linked to any qualification higher than this one in the future.



Text in the boxes above :

1. Multi Skill Technician (Fabrication)
2. Multi Skill Technician (Electrical)
3. Multi Skill Technician (Food Processing)
4. Gardener cum Nursery Raiser
5. Automotive Service Technician
5. Fabricator or Construction Welder MIG/TIG/SMAW (NSQF Level 4)
6. Diploma or Degree in Engineering, Home Science, Agriculture
7. ITI

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

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NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

Annexure 1: Vertical Mobility

