**NSDA Reference**

*To be added by NSDA*

**CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE**

**Name and address of submitting body:**

West Bengal State Council of Technical & Vocational Education and Skill Development

Karigari Bhavan(5th Floor), Plot-B/7, Action Area-III

New Town, Kolkata-700160

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

**Name: SUPARNA KUMAR ROYCHOWDHURY**

**Position in the organisation:Chairman, Board of Studies and Skilling**

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

1. Curriculum and Course Content
2. Assessment strategy

**SUMMARY**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Qualification Title** | | **Mushroom Cultivator** | | | | |
| **Qualification Code** | |  | | | | |
| **Nature and purpose of the qualification** | | Short term Certificate Course  To become wage employed in Mushroom Cultivation Production farms or self-employed i.e. entrepreneurs in Mushroom Cultivation sectors | | | | |
| **Body/bodies which will award the qualification** | | West Bengal State Council of Technical & Vocational Education and Skill Development | | | | |
| **Body which will accredit providers to offer courses leading to the qualification** | | Committee on Recognition under the West Bengal State Council of Technical & Vocational Education and Skill Development | | | | |
| **Body/bodies which will carry out assessment of learners** | | Board of Examination under the West Bengal State Council of Technical & Vocational Education and Skill Development | | | | |
| **Occupation(s) to which the qualification gives access** | | **Mushroom Cultivator** | | | | |
| **Licensing requirements** | | No | | | | |
| **Level of the qualification in the NSQF** | | Level 3 | | | | |
| **Anticipated volume of training/learning required to complete the qualification** | | 650 hours | | | | |
| **Entry requirements and/or recommendations** | | Class VIII pass | | | | |
| **Progression from the qualification** | | **Wage Employment:** Basic Mushroom Cultivator 🡺Senior Mushroom Cultivator  (in large Mushroom Farm Houses / Organisations).  **Entrepreneur:** Basic Mushroom Cultivator 🡺Senior Mushroom Cultivator 🡺Advisor in Mushroom Cultivator | | | | |
| **Planned arrangements for the Recognition of Prior learning (RPL)** | | RPL will consist of four stages   1. Counselling- To inform, advise and guide the candidates regarding RPL 2. Pre-Assessment- To assess the current competencies of the candidates and identifying the gap between the full qualification and current competencies. 3. Orientation &Bridge Training- To train the candidates for bridging the gap. 4. Final assessment & Certification- To assess the candidate for full qualification and certify. | | | | |
| **International comparability where known** | | N/A | | | | |
| **Date of planned review of the qualification.** | | Every 3 years | | | | |
| **Formal structure of the qualification**  After completion of course the passed out trainee will be able to handle both macro & microscale Mushroom farm , to produce good quality edible mushroom using organic compost, to develop small entrepreneurship. | | | | | | |
| **Title of component and identification code.** | | | **Mandatory/Optional** | | **Estimated size (learning hours)** | **Level** |
| **I. Theory** | | | **Mandatory** | | 100 | 3 |
|  | Introduction | | **Mandatory** | | 10 | 3 |
| Prepare & pasteurize the compost necessary to cultivate mushrooms | | **Mandatory** | | 30 | 3 |
| Select commercially important species of mushroom and design appropriate site to cultivate mushrooms | | **Mandatory** | | 20 | 3 |
| Undertake disease control and pest management activities, casing and pinning for mushroom cultivation | | **Mandatory** | | 20 | 3 |
| Undertake harvest & post-harvest procedures of mushrooms | | **Mandatory** | | 20 | 3 |
|  | | | | | | |
|  | **II. Practical** | | **Mandatory** | | 450 | 3 |
|  | **Composting in Mushroom cultivation** | | **Mandatory** | | 100 | 3 |
| **Selection of types of Mushroom and Sites** | | **Mandatory** | | 50 | 3 |
| **Mushroom cultivation - methods** | | **Mandatory** | | 150 | 3 |
| **Disease control and pest Management** | | **Mandatory** | | 50 | 3 |
| **Harvesting of Mushroom** | | **Mandatory** | | 50 | 3 |
| **Packaging storing and grading of Mushroom &post harvest procedures** | | **Mandatory** | | 50 | 3 |
|  | | | | | |
|  | **III. Employability Skills** | | | **Mandatory** | 100 | 3 |
| i. | **Employability Skills component of the course is to impart Soft skills which include Communication Skills, Behaviour, IT literacy, Entrepreneurship Skills, Safety, Hygiene etc.** | | |
| **Total (I+II+III)** | | | | **650** |  |

Curriculum Document is attached in Annexure-1.

Assessment Strategy Component wise distribution of marks is given in the Annexure No. 2

MoM attached in Annexure-3

**SECTION 1**

**ASSESSMENT**

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| **Body/Bodies which will carry out assessment:**  Board of Examination under West Bengal State Council of Technical & Vocational Education & Skill Development, constituted under the ACT XXVI of 2013 under Department of Technical Education, Training & Skill Development, Govt. of West Bengal.  **How will RPL assessment be managed and who will carry it out?**  RPL will consist of four stages   1. Counselling- To inform, advise and guide the candidates regarding RPL 2. Pre-Assessment- To assess the current competencies of the candidates and identifying the gap between the full qualification and current competencies. 3. Orientation &Bridge Training- To train the candidates for bridging the gap. 4. Final assessment & Certification- To assess the candidate for full qualification and certify.   RPL assessment will be managed by PBSSD (Paschim Banga Society for Skill Development) under Department of Technical Education, Training & Skill Development, Govt. of West Bengal.  **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.**  Assessment will be carried out by Board of Examination under West Bengal State Council of Technical & Vocational Education & Skill Development, under Department of Technical Education, Training & Skill Development, Govt. of West Bengal.  The Council has all necessary infrastructure and pool of qualified Assessors/ Examiners to carry out such assessments. Presently the Council is conducting all examinations for all courses which includes Diploma Courses, Vocational Courses in VIII+ level and X+2 level &other Short term Courses. Council also conducts all State Level Entrance tests like JEXPO for admission to Diploma Courses in Polytechnics, VOCLET for lateral entry to Diploma Courses in Polytechnics and CET (Common Entrance Test ) for admission to NCVT courses in ITIs. |

**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 – ie Learning Outcomes to be assessed, assessment criteria and the means of assessment.*

**Title of Component:**

|  |  |
| --- | --- |
| **Outcomes to be assessed** | **Assessment criteria for the outcome** |
| Selection of appropriate cultivation sites | * Will be able to select appropriate site suitable for Mushroom cultivation |
| Designing and construction of Mushroom Farm | * Will be able to design and construct appropriate site suitable for Mushroom farm |
| Role of composting in Mushroom cultivation | * Will be able to prepare different types of compost |
| Preparation of different types of compost and Pasteurization of compost | * Will be able to pasteurize the compost |
| Use of Mushroom spawns and selection of edible types of correct mushroom spawn | * Will be able to identify and select edible types of Mushroom spawn |
| Control of Diseases and pests | * Will be able to manage the diseases and pests of Mushroom |
| Methods of harvesting of Mushroom | * Will be able to harvest through appropriate techniques |
| Packaging, storing and grading of Mushrooms | * Will be to grade & pack the Mushroom based on the quality |
| Understand and practice soft skills | * Assessor will rate the trainee on his ability to practice soft skills, including clear and concise communication, in day to day work with team and with higher authority |
| Demonstrate knowledge of concept and principles of basic arithmetic and financial calculation, and apply knowledge of specific area to perform practical operations. | * Apply basic arithmetic calculations for arriving dimensional parameters as per drawing. * Apply basic financial calculation to understand cost of materials & labour and basic concepts of profit/loss, * Engage in basic banking transactions as customer |
| Explain time management, entrepreneurship and manage/organize related task in day to day work for personal & social growth. | * Ascertain appropriate time for the assigned task. * Execute the assigned task within time frame. * Manage own work within specified time. * Explain importance & factors affect the development of entrepreneurship. * Identify service providers for developingentrepreneur/business establishment. |
| **Means of assessment 1**  There will be two types of Assessments viz. Formative and Summative. The Formative Assessment will be carried out continuously during the conduct of course and Summative Assessment will be carried out at the end of the course. Details are mentioned under means of Assessment-2. Written test, Practical examination/ Skill test & Viva voce | |
| **Means of assessment 2**   1. **Means of Formative Assessment (Total marks allotted- 300)** 2. Assignments for each module of Theory component 3. Assignments for each module of Employability Skills component 4. Continuous evaluation of each module of Practical component 5. **Means of Summative Assessment(Total marks allotted- 700)** 6. Written test for Theory component 7. Written test for Employability Skills component 8. Practical Test & Viva-voce for Practical Component.   Component wise distribution of marks is given in the Annexure 2 | |
| **Pass/Fail**   |  | | --- | | **Pass/Fail**  Passing criteria is based on marks obtained in Formative and Summative Assessment taken together as mentioned in Annexure No-1   1. Minimum Marks to pass Theory component– 60% 2. Minimum Marks to pass Employability Skills component– 60% 3. Minimum Marks to pass practical component– 70% 4. Minimum attendance required to appear in the final examination- 75% | | |

**SECTION 2**

**EVIDENCE OF LEVEL**

**OPTION A**

| **Title/Name of qualification/component: Asst. Electrician and Motor Winder Level:** 3 | | | |
| --- | --- | --- | --- |
| **NSQF Domain** | **Outcomes of the Qualification/Component** | **How the outcomes relates to the NSQF level descriptors** | **NSQF Level** |
| Process | * Ability to do the routine works of maintaining Mushroom farm | * User/individual on the job needs to know and understand: * Plan and organize work of mushroomculture and compost and analyse the components of compost. | **3** |
| Professional knowledge | * Factual knowledge about the different types of edible Mushrooms and the methods of cultivation | * User/ individual needs to have an understanding of basic principles and knowledge about the preparation of mushroom | 3 |
| Professional skill | * Ability to prepare different compost required for Mushroom cultivation, manage pests & diseases, harvest right quality Mushroom at right time. | * User/ Individual demonstrate the practical skill about quality ofmushroom and disease control | 3 |
| Core skill | * Ability to start and run Mushroom farm on scientific lines in profitable manner. * Communicate effectively with subordinates/coworkers and convey and share work related information clearly using appropriate language. * Fundament knowledge of computer and basic understanding personal banking | * User / Individual gathers knowledge of soft skill and fundamental knowledge of computer which enable the user/ individual to work in a team in a collaborative manner. | 3 |
| Responsibility | * Since this training leads to self employment, responsibility for won work and learning is to be present and demonstrated * Check-up procedures to ensure that project objectives are finished within specified time frames are developed. * Read circulars/notifications issued by appropriate authority or concerned agency on information related to work. * Comply with occupational health and safety requirements relevant to worker. * Assess possible risks and hazards in the work environment and exercise safety. * Precautions to minimize injury to self and others comply with relevant safety practices while handling sharp tools and equipment | * User / Individual is required to carry out functions such as interpreting warnings/instructions given on tools and materials needed in Mushroom Culture. In these activities user / individual is doing the task under supervision. | 3 |

**SECTION 3**

**EVIDENCE OF NEED**

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| **What evidence is there that the qualification is needed?**  After completing this programme, participants will be able to:   * **Identify & arrange resources/ inputs for mushroom cultivation unit:** commercially important species of mushroom, site location for mushroom cultivation, base material for compost preparation etc * **Undertake good quality mushroom production using appropriate techniques:** preparation of compost, ensure proper environmental conditions, disease & pest management, casing & pinning for mushroom cultivation, harvest good quality mushroom, sorting & grading, packaging, labelling & transportation * **Undertake basic entrepreneurial activities for small mushroom enterprise:** arrangement of finance, pooling of resources, market linkages etc * **Practice health & safety at the work place:** Well versed with health and safety measures in terms of personal as well as others’ safety.   There is a huge opportunity for self-employment of the skilled persons in mushroom cultivation sector. West Bengal has a major agro based economy for which this qualification is extremely relevant. |
| **What is the estimated uptake of this qualification and what is the basis of this estimate?**  The estimated uptake of the qualification in the state of West Bengal as on date is around 4000 per year. This would grow exponentially from a nation-wide perspective. These estimates have been arrived at after detailed consultation with domain experts(Progressive Enterprise, HaqueAgrbio Tech, PurbaMedinipur Farmer and Welfare Association) etc.  Industries, Employers, Associations have validated need and estimated requirement of the qualification in a meeting organised by the Council. (Annexure-3) |
| **What steps were taken to ensure that the qualification does not duplicate already existing or planned qualifications in the NSQF?**  This qualification is being conducted under the West Bengal State Council of Technical & Vocational Education & Skill Development under Department of Technical Education, Training and Skill Development since the academic year 2005 in Vocational Training Centres spread all over West Bengal for class- VIII+ pass dropout youths. In the state of West Bengal the Council is affiliating and awarding body for this qualification. Thus there is no other existing or planned qualification (Short term courses) in the state aligned with NSQF. |
| **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 council has three well defined sub-committees namely Board of Studies and Skilling, Board of Examination and Recognition Committee. These committees monitor and review the progress of all qualifications under its purview on a regular basis.  This qualification will be reviewed and revised at an interval of three years on the basis of the outcome of the trainees, placement and self employment data and feedback from concerned industries/employers. |

**SECTION 4**

**EVIDENCE OF PROGRESSION**

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| **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?**  The trainee on completion of the course can work as a basic Mushroom Cultivator and after gaining filed knowledge he/she can work as an independent authority. Thereafter, he becomes eligible to work as a Senior Mushroom Cultivator. He/ she can become either an employee of an organization or become self-employed. In case of employment under an employer, he can progress to various level-wise designations, based on either experience or on obtaining subsequent qualifications. This is as shown below.  Basic Mushroom Cultivator  Senior Mushroom Cultivator  Advisor in Mushroom Cultivator  Senior Advisor in Composting & Organic Manures  Entrepreneur  Wage Employment  Senior Mushroom Cultivator  Basic Mushroom Cultivator  **Wage Employment Entrepreneur** |