**APPRENTICESHIP CURRICULUM (OPTIONAL TRADE)**

**Life Sciences**

**Production Machine Operator-Non-Sterile Formulation: Blending, Granulation**

**Course Code: CO022500003**

[x] **NAPS** [ ] **Non-NAPS**

**NSQF Level: 4**



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# Course Details

|  |  |  |
| --- | --- | --- |
|  | **Course Name** | **Production Machine Operator-Non-Sterile Formulation:** **Blending, Granulation** |
|  |  | **CO022500003** |
|  | **Apprenticeship Training Duration:***(2 to 4 weeks of BT is embedded in this duration as per the requirement of the establishment)* | **Months: 12 Months** |
| **Remarks**  |  |
|  | **Credit** | **40.00** |
|  | **NSQF Level** (*Mandatory for NAPS*) |  4 **NSQC Approval Date:** 17 December 2024 |
|  | **Related NSQF aligned qualification details** |

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **QP/ Qualification/ NOS Name (As applicable)** | **QP/ NOS Code & Version** | **NQR Code** |
| **1.** | **Production Machine Operator-Non-Sterile Formulation:** **Blending, Granulation** | **LFS/Q1202-SI001****(v3.0)** | **QG-04-LS-03403-2024-V2-LSSSDC** |

 |
|  | **Brief Job Role Description** | The production machine operator Non Sterile Formulation program enables the learner to be able to meet the job responsibilities of production machine operator for operating the machines for production and packaging, while following Good Manufacturing Practices for the manufacturing/packaging of non-sterile drug formulations and Nutraceuticals. The program shall be able to develop learner to perform in-process quality checks to verify that the output in batch manufacturing/ continuous manufacturing the quality parameters are met. He/ she shall also be able to generate and maintain the critical records for every activity performed in compliance with data integrity rules. The Program shall also enable engineering skills in the learners to maintain the semi-automated and automated plant equipment and troubleshoot and resolve primary level simple engineering problems to ensure minimal breakdown of the production line. |
|  | **NCO-2015 Code & Occupation** (*Access the NCO 2015 volumes from:* [*https://labour.gov.in/organizationsofmole/directorate-general-employment-training-dget*](https://labour.gov.in/organizationsofmole/directorate-general-employment-training-dget) ) | NCO-2015/8131.7000 NCO-2015/8131.9900 Manufacturing |
|  | **Minimum Eligibility Criteria** *(Educational and/ or Technical Qualification)* | 12th Class (Science Subjects Preferred) ORCompleted class 10 + 2 year NTC/NAC (Eng trade) ORCompleted 1st Year Diploma in PharmacyORCertificate NSQF Level 3 (Assistant- Manufacturing and Packaging (Pharma, Biologics and Medical device)) with 3 Years of relevant experience |
|  | **Entry Age for Apprenticeship** | 18 years |
|  | **Any Licensing Requirements** (*wherever applicable*) | NA |
|  | **Is the Job Role amenable to Persons with Disability** | [x]  **Yes** [ ]  **No****If yes, check the applicable type of Disability**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [ ]  **Locomotor Disability** | [ ]  **Leprosy Cured Person** | [ ]  **Cerebral Palsy**  | [ ]  **Dwarfism** | [ ]  **Muscular Dystrophy** |
| [x]  **Acid Attack Victims** | [ ]  **Blindness** | [ ]  **Low Vision** | [ ]  **Deaf**  | [ ]  **Hard of Hearing** |
| [x]  **Speech and Language Disability** | [ ]  **Intellectual Disability** | [ ]  **Specific Learning Disabilities** | [ ]  **Autism Spectrum Disorder** | [ ]  **Mental Illness** |
| [ ]  **Multiple Sclerosis** | [ ]  **Parkinson's Disease** | [ ]  **Haemophilia** | [ ]  **Thalassemia** | [ ]  **Sickle Cell Disease** |
| [ ]  **Multiple Disabilities** |  |  |  |  |
|  |

 |
| **Remarks:** |
|  | **Submitting Body Details** | **Name:** Life Sciences Sector Skill Development Council**E-mail ID:** info@lsssdc.in**Contact Number:** 011-41042407/8 |
|  | **Certifying Body**  | Life Sciences Sector Skill Development Council |
|  | **Employment Avenues/Opportunities** | **Operating of machines in pharmaceutical manufacturing companies**Jobs Opportunities in private companies:The trainees can get a job in a corporate as a Machine operator |
|  | **Career Progression** | **Vertical progression** **a**. Production Machine Operator- Sterile Formulations (Level-4.5)  |
|  | **Trainer’s Qualification & Experience:** | 12th class ( Science subjects) / ITI Diploma (Any) with 5 years relevant industry experience with specialization in Nutraceutical/ Pharmaceutical/ AYUSH Manufacturing/ Production with certification for Job Role: “Production Machine Operator-Non Sterile Formulation” mapped to QP: “LFS/Q1202, v3.0” with minimum accepted score of 80% ORBSc/ B.tech/ B.Pharm ( Chemistry/ Pharmacy/ Chemical Engg. / Biotech Engg. ) with 3 years relevant industry experience with specialization in Nutraceutical/ Pharmaceutical/ AYUSH Manufacturing/ Production with certification for Job Role: “Production Machine Operator-Non Sterile Formulation” mapped to QP: “LFS/Q1202, v3.0” with minimum accepted score of 80%. ORAt least four (4) years of teaching and/or research experience in a relevant academic or research position (Assistant Professor/ Associate Professor/ Professor) with Recognition of Prior Learning Certification in Production Machine Operator-Non Sterile Formulation “LFS/Q1202, v3.0” post completion of Faculty Development Program of LSSSDC with certification for Job Role: “Production Machine Operator-Non Sterile Formulation” mapped to QP: “LFS/Q1202, v3.0” with minimum accepted score of 80%.Recommended that the Trainer is certified for the Job Role: “Trainer (VET and Trainer)”, mapped to the Qualification Pack: “MEP/Q2701, v3.0” with minimum score of 80%. |
|  | **Curriculum Creation Date** | 04 February 2025 |
|  | **Curriculum Valid up to Date** | 17 December 2027 |

# Module Details

| **S. No** | **Module/NOS Name, Code, Version** | **Outcomes** | **Assessment Marks** | **Passing Percentage**  |
| --- | --- | --- | --- | --- |
| **Th.** | **Pr.** | **Th.** | **Pr.** |
|  | **Discuss about Life Sciences Industry and Basics of manufacturing Operations****LFS/N0274, Version 1.0** | * learn key insights in the life sciences sector through various market

research reports* Identify the major segments within the life sciences industry

(pharmaceuticals, biotechnology, medical devices, etc.).* comply with key regulatory requirements for manufacturing facilities (e.g., cGMP, cGLP, cGDP guidelines)
* ensure ethical conduct followed in life sciences manufacturing, including data integrity and patient safety
* analyze the impact of standard quantity effect on product quality and efficacy.
* Learn and analyze the role of each component in ensuring efficient and compliant manufacturing operations under supervision.
 | 40 | 60 | 70% | 70% |
|  | **Prepare machines and perform pre-production check for drug production****LFS/N1201****Version No:4.0**  | * Assist in ensuring that critical starting material, Raw material, excipients, packing material areas from a respective batch and analyzed by QC & approved by QA.
* Identify and locate various parts of machines used for non-sterile formulation manufacturing under guidance.
* Perform product status labeling on equipment.
* Assist in setting critical parameters for the machine based on machine history using control panel.
* Assist in taking preventive maintenance of non-sterile formulation production machines.
* Under supervision conduct inspection of equipment for its calibration and validation state as per guidelines.
* Perform trial run and random tests to ensure accuracy.
 | 50 | 50 | 70% | 70% |
|  | **Adherence to Environment, health, and safety guidelines in a production facility and GMP controlled areas****LFS/N0112****Version:4.0** | * Adhere health, safety and personal hygiene- related protocols as per WHO standards and ICH GMP guidelines.
* Follow gowning procedures while entering an environment controlled work area.
* Use appropriate safety gears like headgear, masks, gloves and other relevant safety accessories as mentioned in the guidelines, while carrying out work.
* Use helmets, ropes, harness, and ladders while working at heights and pulleys/ forklift (if available) to transport the material/ spares/ heavy assembly and tools.
* Segregate material and follow the 5S system at the storage area. Ensure to adhere to storage and handling guidelines for hazardous material.
* Inform the concerned person immediately about every unsafe act/ incident and follow emergency procedures efficiently.
 | 30 | 70 | 70% | 70% |
|  | **Maintain compliance with Good Manufacturing Practices (GMP) and other regulations****LFS/N0265****Version:3.0** | * Perform the cleaning of machine and monitor environmental conditions in production area as per SOP and cGMP guidelines.
* Assist in ensuring adherence to Good Manufacturing Practices related to machine operations and speciﬁc in- process production checks as directed in SOPs.
* Perform waste segregation and waste disposal under supervision.
* Adhere to ALCOA principles during documentation of the activities performed.
* File deviation in case of non-adherence of Good Documentation Practices and SOPs and notify supervisor / manager.
* Follow organizational environment sustainability guidelines and procedures to achieve energy and water conservation as well as zero pollution of land, water, and Air.
 | 27 | 73 | 70% | 70% |
|  | **Ensure a hygienic and clean work area to avoid contamination** **LFS/N0113****Version:3.0** | * Inspect for contamination and ventilation and ensure to clean the area/machines and accessories as per SOP, in case of any stain on ﬂoor or machine.
* Handle the cleaning material/reagent only after wearing the personal protective equipment required for the cleaning method.
* Segregate and store the chemicals/ material with an appropriate label in designated places to avoid contamination.
* Segregate, store and dispose of the rejected products or generated waste as per SOP under the supervision of supervisor and EHS personnel.
* Ensure that there is no oily substance on the ﬂoor to avoid slippage and no scrap material is lying around while carrying out the work and clean as per SOP.
* Perform the cleaning validation of the equipment in the presence of designated authorized personnel and QA inspector as per SOP.
* Ensure that, on completion of the work, the area is left clean and dry and meets WHO and GMP requirements of sanitized premises.
 | 30 | 70 | 70% | 70% |
|  | **Perform Reporting and documentation with Data Integrity** **LFS/N0268****Version:3.0** | * Identify potential causes of non-conformities to quality assurance standards with the help of a production chemist.
* Assist in recording the required information of all significant activities as per BMR, incidents, and deviations as per recording formats as per SOP, GMP and data integrity rules.
* Assist in maintaining electronic and manual records in the logbooks as well as documentation for breakdown time, daily manufacturing record, yield report, etc. as per SOP, GMP and data integrity rules.
 | 25 | 75 | 70% | 70% |
|  | **Coordinate and communicate with Supervisor/ production chemist, teams, and auditors****LFS/N0104****Version:4.0** | * Work as per instructions given by reporting supervisor and seek guidance/advice from him/her on production plan for meeting the Timelines.
* Communicate process-ﬂow improvements, production defects received from the previous process, repairs and maintenance of equipment to reporting supervisor/ production Chemist.
* Assist in taking handover from previous shift operator and give handover to next shift operator as per SOP.
* Coordinate with warehouse team, maintenance team, quality control team, and QA team at a routine interval as per SOP.
* Adhere to the guidelines laid in POSH Act and report any violation of prevention of sexual harassment (POSH) rules immediately to the POSH committee.
 | 32 | 68 | 70% | 70% |
|  | **DGT/VSQ/N0102 V1.0: Employability Skills (60 Hours)** | * Identify employability skills required for jobs in various industries
* identify and explore learning and employability portals
* Recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
* follow environmentally sustainable practices
* recognize the significance of 21st Century Skills for employment
* practice the 21st Century Skills such as Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life
* use basic English for everyday conversation in different contexts, in person and over the telephone
* read and understand routine information, notes, instructions, mails, letters etc. written in English
* write short messages, notes, letters, e-mails etc. in English
* understand the difference between job and career
* prepare a career Assist in development plan with short- and long-term goals, based on aptitude
* follow verbal and non-verbal communication etiquette and active listening techniques in various settings
* work collaboratively with others in a team
* communicate and behave appropriately with all genders and PwD
* escalate any issues related to sexual harassment at workplace according to POSH Act
* carry out offline and online financial transactions, safely and securely
* identify common components of salary and compute income, expenses, taxes, investments etc.
* identify relevant rights and laws and use legal aids to fight against legal exploitation
* operate digital devices and carry out basic internet operations securely and safely
* use e- mail and social media platforms and virtual collaboration tools to work effectively
* use basic features of word processor, spreadsheets, and presentations
* identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
* Assist in developing a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
* identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity
* identify different types of customers
* identify and respond to customer requests and needs in a professional manner
* follow appropriate hygiene and grooming standards
* create a professional Curriculum vitae (Résumé)
* search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
* apply to identified job openings using offline /online methods as per requirement
* answer questions politely, with clarity and confidence, during recruitment and selection
* identify apprenticeship opportunities and register for it as per guidelines and requirements
 | 20 | 30 | 70% | 70% |
|  | **Perform Blending Operations****LFS/N1223, Version 1.0** | * Perform sanitization and gowning procedures as per SOP and cleanroom guidelines.
* Wear personal protective equipment (PPE) before entering the production area.
* Check and verify blending parameters, including blending time, speed, and load capacity, as per SOP and Batch Manufacturing Record (BMR).
* Inspect and ensure safety measures, including equipment earthing, trolley wheel inspection, cleaned label checks, guard checks, isolation point, and accessibility checks.
* Measure and prepare required quantities of materials while minimizing wastage, in alignment with SOP and BMR guidelines.
* Set blending equipment controls as per specified parameters outlined in the BMR.
* Operate blending equipment such as V-blenders, double cone blenders, octagonal blenders, or other suitable blending vessels, as per BMR instructions.
* Perform the blending process to achieve uniform distribution of active ingredients and excipients.
* Minimize material waste and product rejections during production operations.
* Conduct in-process checks as specified in the SOP to ensure compliance with quality standards.
* Utilize appropriate measuring instruments, equipment, tools, and accessories for conducting in-process checks.
* Perform sampling of the final bulk product as per SOP requirements.
* Confirm that intermediate and final products meet defined specifications.
* Label and segregate materials, intermediates, and finished goods in accordance with SOPs.
* Segregate and dispose of waste materials under supervision, following waste management protocols.
* Support line clearance activities before initiating the next production batch.
* Handover work and equipment to the colleague in the next shift, adhering to the shift schedule.
 | 23 | 77 | 70% | 70% |
|  | **Perform Granulation Operations****LFS/N1202 Version 3.0** | * Perform sanitization and gowning procedures as per clean room guidelines.
* Use appropriate PPE during granulation operations.
* use operate sifter to sift raw material/ granules as per BMR (Batch Manufacturing Records) and under supervision
* Perform granulation process under supervision using planetary mixer or rapid mixer granulator.
* Utilize appropriate measuring instruments, equipment, tools, accessories etc., as per supervisor instructions and SOPs, required for carrying out in-process checks.
* Perform line clearance supporting activities.
* Perform shift handover in adherence of the shift schedule.
 | 23 | 77 | 70% | 70% |
|  | **Total Marks** | **300** | **650** | **70%** | **70%** |

Glossary

|  |  |
| --- | --- |
| **Term** | **Description** |
| Declarative Knowledge | Declarative knowledge refers to facts, concepts, and principles that need to be known and/or understood to accomplish a task or to solve a problem.  |
| Key Learning Outcome | The key learning outcome is the statement of what a learner needs to know, understand, and be able to do to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory), and skills (practical application). |
| OJT (M) | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site |
| Procedural Knowledge | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work or produce a tangible work output by applying cognitive, affective, or psychomotor skills.  |
| Training Outcome | Training outcome is a statement of what a learner will know, understand, and be able to do upon the completion of the training.  |
| Terminal Outcome | The terminal outcome is a statement of what a learner will know, understand, and be able to do upon the completion of a module. A set of terminal outcomes helps to achieve the training outcome. |

#

Acronyms

|  |  |
| --- | --- |
| **Acronym**  | **Description** |
| QP | Qualification Pack |
| NSQF | National Skills Qualification Framework |
| NSQC | National Skills Qualification Committee |
| NOS | National Occupational Standards |
| GLP | Good Laboratory Practices |
| GMP | Good Manufacturing Practices |
| WHO | World Health Organization |
| SOP | Standard Operating Procedure |
| MSDS | Material Safety Datasheets |
| GDP | Good Documentation Practices |
| EHS | Environment Health Safety |
| PPE | Personal Protective Equipment |

# Annexure 1: Tools and Equipment

##

##  List of Tools and Equipment

 The tools and equipment required are:

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Tool / Equipment Name** | **Specification** |
|  | color-coded waste bin bag,  |  As per Industry Requirements |
|  | Cleaning agents  | As per Industry Requirements |
|  | Apparatus for cleaning  | As per Industry Requirements |
|  | PPE | Gloves, gown, shoe and head cover, masks and respirators, face shield, goggles(As per Industry Requirements) |
|  | semi-automatic/ automatic containerization machine | As per industry Requirement |

##  Classroom Aids

 The aids required to conduct sessions in the classroom are:

1. Projector
2. Computer/laptops
3. Internet connectivity
4. Whiteboard
5. Scanner
6. Computer speaker

Annexure 2: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. **Assessment System Overview:**

The assessment for the Training will be conducted toward the end of the training duration. The assessment of the qualification shall be carried out by NCVET approved assessment agencies empaneled by LSSSDC after a defined evaluation process. For Execution of the assessment for training for the qualification, LSSSDC will be engaging more than one NCVET approved assessment agency/ body.

* 1. **Criteria of selection of assessment body/agency:**

The assessment body/agency is selected based on:

* + - Prior experience and understanding of Life Sciences or similar sector.
		- Experience in conducting assessments for similar job roles.
		- Manpower and Technical capabilities.
		- Geographical reach
		- Existing Network in the Life Sciences Sector
		- Agencies internal policies to maintain standards, quality & professional Integrity
		- Agencies policy and practices in assessor management
		- NCVET approval
	1. **Assessment tool development for assessment of Training:**

For the Training assessment, the assessment instrument development is done by the selected assessment body with close monitoring and support of LSSSDC at every stage.

* + 1. ***Digital Written test for knowledge assessment:***

**Scope –** Is used to test the knowledge component of the QP.

**Tools –**computer or tab based online or offline.

**Method –** objective type questions, match the columns, fill in the blanks, tick the odd man out, choose the correct option, choose the best answer, True or false, Identify the object, tool or machinery, arrange in proper sequence, case study, scenario-based responses.

**Analysis –** Question paper is divided into sections. Each Section intends to assess a particular knowledge field of the trainee. Thus, section-wise calculation of marks gives a clear idea of the areas of improvement or expertise of the trainee. While a consolidated mark gives the overall rating of the trainee.

* + 1. ***Digital Written test for skill assessment:***

**Scope –** Is used to test primarily the Skill component of the QP. Trainee’s expertise in handling and managing the situation is tested.

**Tools –** computer or tab based online or offline questions

**Method –** A situation is narrated or created in the question posed to the trainee and he is asked objective type questions to select the correct reaction to the situation. The selected situations are based on real situations.

**Analysis –** Question paper is divided into sections. Each Section intends to assess a particular skill field of the trainee. Thus, section-wise calculation of marks gives a clear idea of the areas of improvement or expertise of the trainee. While a consolidated mark gives the overall rating of the trainee.

* 1. **Steps for assessment tool development:**
		+ The selection of assessment tool(s) is done as per the assessment criteria prescribed in Qualification Pack
		+ For Production Machine Operator-Non-Sterile Formulation :Blending ,Granulation assessment a blueprint of the question paper is part of the assessment tool for training.
		+ Development of layout of Question paper is such that the entire PCs (Performance Criteria) of that QP are covered.
		+ Score per question maps with the weightage given to that PC, in the assessment criteria, and the level of difficulty of the question.
		+ An expert from industry is selected who is called “Subject Matter Expert” (SME). This SME must have over 13-15 years of experience in the industry in manufacturing occupation.
		+ SME is screened and approved by LSSSDC. He/she is oriented by both LSSSDC and Assessment agency on – creating question Bank, level of questions, end the desired outcome of the assessment.
	2. **Execution of Training Assessment/ RPL Assessment:**
		+ Once the assessment date for training is decided with common agreement of Industry/ Vocational Training Centre and LSSSDC, LSSSDC allocates the batch to an NCVET approved and LSSSDC empaneled assessment body/agency.
		+ Assessment agency ensures
			- the availability of required infrastructure
			- the availability of validated assessment tools for the assessment of training for the assigned qualification
			- the availability of assessor as per assessor eligibility criteria of the qualification
		+ Assessment agencies send the assessment confirmation to VTP/TC looping SSC
		+ Assessment agency deploys LSSSDC certified assessor for executing the assessment
		+ LSSSDC monitors the assessment process & records
		+ The assessment is executed in two possible ways depending on the choice of the industry:
		1. Tab based assessment using physical proctoring
		2. Smartphone-based assessment using e-proctoring
		3. **Tab-based assessment using physical proctoring**
			+ A representative from the Assessment agency is present on the day of assessment to executing the assessment at the venue in case of physical proctoring.
			+ The assessment agency representative carries an identity card and letter from the council authorizing to conduct the assessment.
			+ Assessment agency representative ensures the authenticity of Trainee’s identity by verifying the documents (any document issued by GOI, such as Ration card, Aadhaar Card, Driving License, Passport, Election card, etc)
			+ The assessment agency representative maintains the records of attendance, verified documents, and tablet instruments used in the assessment.
			+ Assessment agency representative collects evidence of the assessment in the best possible way (videos, pictures, voice recordings, etc)
			+ Assessment agency representative transfers the assessment scores from tab to assessment agency server, using a secure, encrypted web-based program.
			+ The assessment agency after processing the results and putting them in standard format hands over to LSSSDC within 7 days of assessment.
		4. **Smartphone-based assessment using e-proctoring**
			+ All trainees enrolled in the batch due for assessment, are registered on an assessment tool application using their unique mobile number and e-mail ID along with a Govt. ID issued proof.
			+ An assessment link is sent to the mail ID of each trainee with a defined expiry date of the link.
			+ Trainee at any location can click on the link using his/her smartphone or a web camera-enabled computer system
			+ Using the unique credentials and Govt ID number, the trainee logs in for the start of assessment and completes the assessment.
			+ The authenticity of Trainee’s identity is done by assessment application by verifying the documents (any document issued by GOI, such as Ration card, Aadhaar Card, Driving Licence, Passport, election card, etc.) and a live photo capture
			+ A live video of the candidate during the assessment is captured to collect the evidence of the assessment
			+ Once the assessment is complete, the assessment application automatically assessment scores to the assessment agency server, using a secure, encrypted web-based program.
			+ The assessment agency after processing the results and putting them in standard format hands over to LSSSDC within 7 days of assessment.
1. **Testing Environment:**
* The Centre/ location of the assessment is pre decided and geo tagged in case of physical assessment
* The assessment of LSSSDC qualifications are 99% done in digital environment while 1% pen and paper is used ONLY in business exigencies
* Based on the size of batch the assessment duration/ no. of required assessors are decided to ensure detailed assessment without any negative impact on quality of assessment
* The system driven automated assessment management system ensures uniform time allocation to each student, unique logins for each students and automated randomization of questions for developing multiple sets of question paper for single batch.
* Identity check of the student is mandated
1. **Assessment Quality Assurance levels/Framework:**
* Question bank is created by the Subject Matter Experts (SME) of Assessment Agency are verified by the other SME of LSSSDC
* All Questions are mapped to the specified assessment criteria
* Assessor eligibility criteria are structured to ensure quality and knowledge credentials of an assessor like-wise the trainer’s quality and knowledge credentials.
* Eligible Assessor must be certified by LSSSDC for the respective and relevant qualification
* The tools used for assessment are validated for relevance and feasibility for skill assessment of the qualification in consideration
1. **Types of evidence or evidence-gathering protocol:**
* Time-stamped & geotagged reporting of the assessor from assessment location
* ID Proof of the students
* Educational qualification of students
* Certificate of Trainer
* In case of Physical assessment, geotagged photographs of the students undergoing assessment
* While students are undergoing assessment on the digital assessment platform the system captures random photos of the student which is audited by LSSSDC
1. **Method of verification or validation:**
* Surprise visit to the assessment location
* ID Proof of the students for identity verification
* Educational qualification verification of students for validation of entry level criteria
* Certificate of Trainer to verify the credential of vocational educator
* Random photos taken by the digital system are verified during audit by the assessment team
1. **Method for assessment documentation, archiving, and access**
* Hard copies and digital copies (whichever is applicable) of the assessment evidences are stored with assessment agency team for 5 years
* Assessment transcripts are stored in the server space of assessment agency for 5 years
* Assessment question banks and validation records are stored with assessment agency and LSSSDC digitally
* Assessment records are archived with assessment agency archive server after 5 years for another 5 years
* Access of assessment records are controlled with restricted access to concerned department and stakeholders and is shared on demand after due approval of Head of Assessment and Certification-LSSSDC

**7.On the Job Training Assessment (applicable for OJT/ Apprenticeship):**

* 1. Each module/ NOS will be assessed separately.
	2. The candidate must score minimum percentage as per assessment criteria laid out in qualification in each module to successfully complete the OJT exam.
	3. Tools of OJT Assessment that will be used for assessing whether the candidate is having desired skills and competence, including Soft Skills effectively:
* Videos of Trainees during OJT (wherever possible)
* Observation based mark sheet from Supervisor or OJT examiner
* Simulated question paper
* XR practice module analytics wherever possible
	1. Assessment of each Module will ensure that the candidate is able to:
* Meet minimum performance criteria of the expected outcome/ skill set for each module/ NOS
* Understand and know the required concepts and its application at workplace
* Has gained the required employability skills

#   Annexure 3: Mode of Training- Not Applicable