Model Curriculum

QP Name: Hatchery Production Worker

QP Code: AGR/Q4901

Version: 3.0

NSQF Level: 3

Model Curriculum Version: 2.0

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower, Plot No. 10, Sector - 44

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Training Parameters

Sector	Agriculture
Sub-Sector	Fisheries
Occupation	Aquaculture
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6221.0102
Minimum Educational Qualification and Experience	Minimum Educational Qualification: Grade 10 OR Grade 8 with two years of (NTC/ NAC) after 8th OR Grade 8 pass and pursuing continuous schooling in regular school with vocational subject OR 8th grade pass with 2-year relevant experience OR 5th grade pass with 5-year relevant experience OR Previous relevant Qualification of NSQF Level 2 with 1-year relevant experience OR Previous relevant Qualification of NSQF Level 2.5 with 6 months' relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 Years
Last Reviewed On	22/07/2021
Next Review Date	30/12/2024
NSQC Approval Date	30/12/2021
QP Version	3.0
Model Curriculum Creation Date	22/07/2021
Model Curriculum Valid Up to Date	30/12/2024
Model Curriculum Version	2.0
Minimum Duration of the Course	300 Hours

Maximum Duration of the Course	300 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Demonstrate the process of assisting in setting up the hatchery and carrying out pre-spawning activities.
- Demonstrate the process of assisting in carrying out larvae production.
- Demonstrate the process of carrying out post-spawning activities.
- Describe the process of maintaining the hatchery.
- Describe the process of undertaking employability and entrepreneurial practices.
- Demonstrate various practices to maintain personal hygiene, cleanliness, and safety at the workplace.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	**05:00**	**00:00**	**0:00**	**0:00**	**05:00**
Module 1: Introduction to the role of a Hatchery Production Worker	05:00	00:00	0:00	0:00	05:00
AGR/N4902 Assist in setting up the hatchery and carrying out pre-spawning activities **NOS Version-2.0** **NSQF Level-3**	**15:00**	**40:00**	**0:00**	**0:00**	**55:00**
Module 2: Process of assisting and setting up the hatchery and carrying out pre-spawning activities	15:00	40:00	0:00	0:00	55:00
AGR/N4903 Assist in carrying out larvae production **NOS Version-2.0** **NSQF Level-3**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**

Module 3: Process of assisting in carrying out larvae production	20:00	40:00	0:00	0:00	60:00
AGR/N4904 Assist in carrying out the post-spawning process **NOS Version-2.0** **NSQF Level-3**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 4: Process of assisting in carrying out the post-spawning activities	20:00	40:00	0:00	0:00	60:00
AGR/N4905 Maintain the hatchery **NOS Version-2.0** **NSQF Level-3**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 5: Process of maintaining of the hatchery	15:00	15:00	0:00	0:00	30:00
AGR/N9903 Maintain health and safety at the workplace **NOS Version-3.0** **NSQF Level-3**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 6: Hygiene and cleanliness	03:00	03:00	0:00	0:00	06:00
Module 7: Safety and emergency procedures	12:00	12:00	0:00	0:00	24:00
DGT/VSQ/N0101 Employability Skills **NOS Version-1.0** **NSQF Level-2**	**30:00**	**00:00**	**0:00**	**0:00**	**30:00**
Module 8: Employability Skills	30:00	00:00	0:00	0:00	30:00
Total Duration	**120:00**	**150:00**	**0:00**	**0:00**	**270:00**
OJT (Recommended): 30 hours					

Module Details

Module 1: Introduction to the role of a Hatchery Production Worker
Bridge Module

Terminal Outcomes:

- Discuss the role of a Hatchery Production Worker.

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the size and scope of the Agriculture industry and its sub-sectors. - Discuss the role and responsibilities of a Hatchery Production Worker. - Identify various employment opportunities for a Hatchery Production Worker.	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of assisting and setting up the hatchery and carrying out pre-spawning activities
Mapped to AGR/N4902 v2.0

Terminal Outcomes:

- Demonstrate the process of assisting in setting up the hatchery.
- Describe the process of assisting in selecting healthy broodstock.
- Explain the broodstock quarantine procedure.
- Demonstrate the process of assisting in acclimatising the broodstock.

Duration: **15:00**	Duration: **40:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the process of setting up a hatchery. - Explain the criteria for selecting healthy broodstock. - Explain the importance of checking the origin of broodstock to ensure its quality. - Describe the method and applicable requirements for isolating broodstock. - Explain the recommended practices to prevent the growth of infectious organisms. - Explain the importance of disinfecting the tools and equipment used in the quarantine facilities. - Describe the process of treating and recycling wastewater and other types of waste. - Describe the process of disposing different types of waste in an environment-friendly manner. - Explain the importance and process of regulating temperature in the maturation facility. - State the appropriate measures/ supervisor's instructions to prevent contamination and growth of harmful organisms in the maturation facility.	- Demonstrate the process of setting up the required facility and infrastructure for the hatchery including the pre- and post-spawning tanks, etc. through coordination with the supervisor. - Demonstrate the process of setting up the pumps, filters and other equipment. - Demonstrate how to dispose the infected/ unfit broodstock and wastewater following the supervisor's instructions. - Show how to disinfect the tools and equipment used in the quarantine area. - Demonstrate the process of acclimatising the broodstock as per the supervisor's instructions.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	

Tools, Equipment and Other Requirements

Power Backup, Weigh Machine, Thermometer

Module 3: Process of assisting in carrying out larvae production
Mapped to AGR/N4903 v2.0

Terminal Outcomes:

- Describe the process of assist in maintaining the maturation room and broodstock.
- Demonstrate the process of assisting in spawning and hatching.
- Describe the process of assisting in screening the larvae.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the process of preparing the maturation room and maintaining broodstock in it. - Explain the importance of maintaining minimum noise and movement in the maturation room. - Explain the importance of maintaining the required water quality parameters for spawning. - Describe the process of identifying the gravid female broodstock and transferring it to the spawning tank. - State feeding requirements of the broodstock. - Describe the process of preparing the isolation room and hatchery tank. - Explain the importance of stocking the eggs in the hatching tank, maintaining the same temperature as the spawning tank. - Describe the process of harvesting and disinfecting the larvae. - Describe the process of screening the larvae.	- Demonstrate the process of draining and cleaning the maturation tanks as per the instructions. - Demonstrate how to disinfect the spawning tank for stocking the gravid female. - Demonstrate the process of transfer the gravid female broodstock with spermatophore to the spawning tank. - Show how to feed the broodstock with a balanced diet containing the recommended quantity of vitamins, minerals, and fatty acids. - Show how to collect the eggs to be transferred to the hatching tank. - Demonstrate the process of preparing the isolation room and hatching tank. - Demonstrate the process of stocking the eggs in the hatching tank. - Show how to aerate the tanks as per instructions to keep the eggs moving. - Demonstrate the process of harvesting the larvae as per instructions. - Demonstrate the process of washing and disinfecting the harvested larvae through an immersion bath to prevent contamination.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	

Grinder, Mixer, Pelletizer, Soil and Water Testing Kit, pH Meter, Nets, Aerator, Chlorine, Iodine, Water Pump, Hypochlorite Solution, Surgical Knife, Gumboots, Breeding Hapa, Syringe, Tray, Spawn Collection Jar (25 ml), Power Backup.

Module 4: Process of assisting in carrying out the post-spawning activities
Mapped to AGR/N4904 v2.0

Terminal Outcomes:

- Demonstrate the process of assisting in performing larvae's feed and health management.
- Demonstrate the process of preparing the fry for being transported.
- Demonstrate various practices for effective resource optimisation.
- Discuss ways to promote diversity and inclusion at the workplace.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the process of preparing the larvae feed and feeding the larvae. - State the recommended practices to be followed to protect the feed from contamination during its handling. - State the appropriate quantity of nutrients to be maintained in the larvae feed. - Explain the importance of maintaining the recommended water quality parameters to ensure optimum growth of larvae. - Explain the need of stocking larvae in groups in separate units according to the stages of their growth. - List the signs of disease and infection among larvae. - Describe the process of sampling the larvae samples to be examined in a laboratory to determine the type of infection and disease among them. - State the appropriate temperature to be maintained during transportation of the fry. - Explain the importance of transporting fry in hygienic conditions to protect it from contamination. - Explain the benefits of resource optimisation. - Explain the importance of inclusion of all genders and People with Disability (PwD) at the workplace.	- Demonstrate how to prepare larvae's feed as per the supervisor's instructions. - Demonstrate the process of feeding the larvae ensuring an appropriate quantity of nutrients. - Prepare a sample record of health checks, larvae growth, water quality parameters, etc. - Demonstrate the process of carrying out the stress test under supervision. - Show how to stock the fry in appropriate containers/ tanks for being transported. - Demonstrate various practices to optimise the usage of various resources such as water and electricity. - Demonstrate appropriate verbal and non-verbal communication that is respectful of genders and disability.
Classroom Aids	

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
Grinder, Mixer, Pelletizer, Oxygen Cylinder, Soil and Water Testing kit, Tray, Bucket, Torch, Plastic bags, Weighing Machine, Gloves etc

ASCI
Agriculture Skill Council of India

Skill India
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Module 5: Process of maintaining the hatchery
Mapped to AGR/N4905 v2.0

Terminal Outcomes:

- Describe the process of assisting in maintaining hygiene and safety in the hatchery.
- Demonstrate the process of carrying out repair and maintenance work.
- Demonstrate various waste management practices.

Duration: **15:00**	Duration: **15:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- State various practices to maintain hygiene and safety in a hatchery. - State common repair and maintenance need at a hatchery such as infrastructural maintenance, water supply and disposal systems, etc. - Describe the process of carrying out regular repair and maintenance at a hatchery. - Explain the importance of recycling and disposing different types of waste as per the applicable regulations.	- Demonstrate how to dry the floor in the hatchery to prevent disease/ infections and any accidents. - Demonstrate the process of cleaning and disinfecting the tanks, tools and equipment. - Demonstrate the process of treating the water with chlorine and filtering it before using it in the hatchery. - Demonstrate the process of carrying out the repair and maintenance activities as per the Standard Operating Procedure (SOP). - Prepare a sample record of repair and maintenance activities through coordination with the supervisor. - Demonstrate the process of recycling and disposing different types of waste appropriately.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Water Testing Kit, pH Meter, Pen, Register, Audio-Visual Aids, Bucket etc	

Module 6: Hygiene and cleanliness
Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

- Discuss how to adhere to personal hygiene practices.
- Demonstrate ways to ensure cleanliness around the workplace.

Duration: 03:00	Duration: 03:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the requirements of personal health, hygiene and fitness at work. - Describe common health-related guidelines laid down by the organizations/ Government at the workplace. - Explain the importance of good housekeeping at the workplace. - Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.	- Demonstrate personal hygiene practices to be followed at the workplace. - Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs. - Demonstrate the steps to follow to put on and take off a mask safely. - Show how to sanitize and disinfect one's work area regularly. - Demonstrate adherence to the workplace sanitization norms. - Show how to ensure the cleanliness of the work area.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask	

Module 7: Safety and emergency procedures
Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

- Describe how to adhere to safety guidelines.
- Show how to administer appropriate emergency procedures.

Duration: 12:00	Duration: 12:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- List the Personal Protective Equipment (PPE) required at the workplace. - Describe the commonly reported hazards at the workplace. - Describe the hazards caused due to chemicals/pesticides/fumigants. - Describe the basic safety checks to be done before the operation of any equipment/machinery. - Describe the common first aid procedures to be followed in case of emergencies. - State measures that can be taken to prevent accidents and damage s at the workplace. - Explain the importance of reporting details of first aid administered, to the reporting officer/doctor, in accordance with workplace procedures. - State common health and safety guidelines to be followed at the workplace.	- Check various areas of the workplace for leakages, water-logging, pests, fire, etc. - Demonstrate how to safely use the PPE and implements it as applicable to the workplace. - Display the correct way of donning, doffing and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc. - Sanitize the tools, equipment and machinery properly. - Demonstrate the safe disposal of waste. - Demonstrate procedures for dealing with accidents, fires and emergencies. - Demonstrate emergency procedures to the given workplace requirements. - Demonstrate the use of emergency equipment in accordance with manufacturers' specifications and workplace requirements. - Demonstrate the administration of first aid. - Prepare a list of relevant hotline/ emergency numbers.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, First Aid Kit, Equipment used in Medical Emergencies.	

Module 8: Employability Skills (30 hours)
Mapped to NOS DGT/VSQ/N0101 v1.0

Duration: 30:00
Key Learning Outcomes

Introduction to Employability Skills Duration: 1 Hour
After completing this programme, participants will be able to:
1. Discuss the importance of Employability Skills in meeting the job requirements

Constitutional values - Citizenship Duration: 1 Hour
2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

Becoming a Professional in the 21st Century Duration: 1 Hours
4. Discuss 21st century skills.
5. Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.

Basic English Skills Duration: 2 Hours
6. Use appropriate basic English sentences/phrases while speaking

Communication Skills Duration: 4 Hour
7. Demonstrate how to communicate in a well -mannered way with others.
8. Demonstrate working with others in a team

Diversity & Inclusion Duration: 1 Hour
9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

Financial and Legal Literacy Duration: 4 Hours
11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

Essential Digital Skills Duration: 3 Hours
14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

Entrepreneurship Duration: 7 Hours
16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

Customer Service Duration: 4 Hours
17. Differentiate between types of customers
18. Explain the significance of identifying customer needs and addressing them
19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 2 Hours
20. Create a biodata
21. Use various sources to search and apply for jobs
22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview
23. Discuss how to search and register for apprenticeship opportunities

Annexure

Trainer Requirements

Trainer Prerequisites					
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	*Specialization*	*Years*	*Specialization*	
Diploma	Fisheries	3	Fishery Production and management			Regular Diploma of more than 15 months in fisheries
B. Sc.	Zoology	3	Fishery Production and management			For the school Program minimum qualification of the Trainer should be Graduate in (Fisheries Science/Industrial Fish & Fisheries/Zoology). Their Teaching experience will be considered industry experience
Graduate	Agriculture	2	Fishery Production and management			
Certificate-NSQF	Hatchery Manager	5	Fishery Production and management			5 Years of experience with corporates/ NGO/ Fisheries Entrepreneur
Graduate	Fisheries Science					

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Hatchery Production Worker**", mapped to QP: "AGR/Q4901, v3.0", Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, 3.0". The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites					
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	*Specialization*	*Years*	*Specialization*	
B.F. Sc		4	In Fisheries Science/ Aquaculture/ Applied aquaculture or related streams and fields			Practical skills and knowledge required in quality hatchery production
B. Sc	Fisheries and related streams	5	In Fisheries Science/ Aquaculture/ Applied aquaculture or related streams and fields			Practical skills and knowledge required in quality hatchery production
M.F. Sc		2	In Fisheries Science/ Aquaculture/ Applied aquaculture or related streams and fields			Practical skills and knowledge required in quality hatchery production
M. Sc	Fisheries/ Applied Aquaculture and related streams	2	In Fisheries Science/ Aquaculture/ Applied aquaculture or related streams and fields			Practical skills and knowledge required in quality hatchery production
PhD	Fisheries Science/ Aquaculture and related streams	1	In Fisheries Science/ Aquaculture/ Applied aquaculture or related streams and fields			Practical skills and knowledge required in quality hatchery production

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Hatchery Production Worker**", mapped to QP: "AGR/Q4901, v3.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%.

Assessment Strategy

Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. <u>Multiple Choice Questions</u>: To assess basic knowledge (Objective/Subjective)
2. <u>Viva:</u> To assess awareness on processes (Oral and/or written questioning)
3. <u>Practical:</u> To evaluate skills and identify competencies. (Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real-time' internet-based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on the ground through qualified and ToA certified assessors.

An individual must have adequate knowledge and skills to perform a specific task, weightage for different aspects of the assessment is given as follows:

- Multiple Choice Questions: 20%-30%, depending on the specific QP
- Viva: 20%
- Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)
- Assessment will be carried out by certified assessors through empanelled assessment partners. Based on the results of the assessment; ASCI will certify the learners/candidates

Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at the assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of the Internet.

- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback stored digitally on the cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle- screen/copy-paste disabled, etc.
- Android-based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention

- Assessment will normally be fixed for a day after the end date of the training / within 7 days of completion of training.

- Assessment will be conducted at the training venue

- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities

- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions, pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.

- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

Assessment			
Assessment Type	Formative or Summative	Strategies	Examples
Theory	Summative	MCQ/Written exam	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks/Demonstration	Practical application /Demonstration /Application tasks
Viva	Summative	Questioning and Probing	Mock interviews on the usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling the job situation

The question paper pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi-dimensional evaluation of candidates covering language, cognitive skills, behavioural traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by a theoretical understanding of the testing objectives and published research about the item types and constructs that have shown statistical validity towards measuring the construct. Test item types that have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of the testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation-based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against a set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, dos and don'ts, subjective questions to check the understanding of practical tasks.

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework that will maintain the standardization of the marking scheme.

Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidence collected by AAs and ASCI are:

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
    - o Signed Attendance sheet
    - o Assessor feedback sheet
    - o Candidate feedback sheet

- o Assessment checklist for assessor
- o Candidate Aadhar/ID card verification
- o Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
- o Pictures and videos of Assessment, training feedback and infrastructure.

- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.

- To validate their work on the day of the assessment, regular calls and video calls are done.

- On-boarding and training of the assessor and proctor are done on a timely basis to ensure that the quality of the assessment should be maintained.

- Training covers the understanding of QP, NSQF level, NOS and assessment structure

Methods of Validation

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.

- Video Calls: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner

- Aadhar verification of candidates

- Evening Check (Post Assessment): Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.

- TP Calling: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation

- Video and Picture Evidence: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.

- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.

- Geo Tagging: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI have a fully automated result generation process in association with multiple AAs

- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can

be generated.

- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC

- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two job role-specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in the storeroom.

Result Review & Recheck Mechanism –

- Time-stamped assessment logs

- Answer/Endorsement sheets for each candidate

- Attendance Sheet

- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form

- The results for each of the candidates shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order 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 in order 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
OJT (R)	On-the-job training (Recommended); trainees are recommended the 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	The 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 help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
AGR	Agriculture
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
OJT	On-the-job Training
PwD	People with Disability
PPE	Personal Protective Equipment
QP	Qualifications Pack