



Model Curriculum

QP Name: Inland Capture Fisherman cum Primary Processor

Optional: Fish-based products

QP Code: AGR/Q5003

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

Table of Contents

Training Parameters.....	3
Program Overview	4
Training Outcomes.....	4
Compulsory Modules.....	4
Module 1: Introduction to the role of an Inland Capture Fisherman cum Primary Processor.....	6
Module 2: Process of preparation for carrying out inland capture fisheries operation.....	7
Module 3: Process of carrying out capture operation, primary processing and marketing of fish.....	9
Module 4: Process of preparing, canning, labelling and marketing fish-based products.....	11
Module 5: Safety and hygiene practices in capturing fisheries	13
Module 6: Employability Skills (30 hours).....	14
Annexure.....	16
Trainer Requirements	16
Assessor Requirements.....	17
Assessment Strategy.....	19
References	24
Glossary.....	24
Acronyms and Abbreviations.....	25

Training Parameters

Sector	Agriculture
Sub-Sector	Fisheries
Occupation	Capture Fisheries
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6222.0100
Minimum Educational Qualification and Experience	Minimum Educational Qualification: Ability to read and write with 5 Years of relevant experience OR 5th Class with 4 Years of relevant experience MinimumAge:18 Years
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	17/11/2022
Next Review Date	17/11/2025
NSQC Approval Date	17/11/2022
QP Version	3.0
Model Curriculum Creation Date	17/11/2022
Model Curriculum Valid Up to Date	17/11/2025
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:

- Describe the process of preparing for carrying out inland capture fisheries operation.
- Demonstrate the process of carrying out capture operation, primary processing and marketing of fish.
- Explain the basic entrepreneurial activities for small enterprise.
- Describe the process of undertaking employability and entrepreneurial practices.
- Explain various safety and hygiene practices in capture fisheries operations.
- Demonstrate the process of preparing, canning, labelling and marketing fish-based products.

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	0:00	0:00	0:00	05:00
Module 1: Introduction to the role of an Inland Capture Fisherman cum Primary Processor	05:00	0:00	0:00	0:00	05:00
AGR/N5006: Prepare for carrying out inland capture fisheries operation NOS Version- 2.0 NSQF Level-4	15:00	40:00	0:00	0:00	55:00
Module 2: Process of preparation for carrying out inland capture fisheries operation	15:00	40:00	0:00	0:00	55:00
AGR/N5007: Carry out capture operation, primary processing and marketing of fish NOS Version- 2.0 NSQF Level-4	20:00	70:00	0:00	0:00	90:00
Module 3: Process of carrying out capture operation, primary processing and marketing of fish	20:00	70:00	0:00	0:00	90:00

AGR/N5125: Prepare, can, label and market fish-based products NOS Version- 1.0 NSQF Level- 4	30:00	60:00	0:00	0:00	90:00
Module 4: Process of preparing, canning, labelling and marketing fish-based products	30:00	60:00	0:00	0:00	90:00
AGR/N5103: Follow the safety and hygiene practices in capture fisheries operations NOS Version- 2.0 NSQF Level- 4	20:00	10:00	0:00	0:00	30:00
Module 5: Safety and hygiene practices in capturing fisheries	20:00	10:00	0:00	0:00	30:00
DGT/VSQ/N0101 Employability Skills NOS Version-1.0 NSQF Level-2	30:00	00:00	0:00	0:00	30:00
Module 6: Employability Skills	30:00	00:00	0:00	0:00	30:00
Total Duration	120:00	180:00	0:00	0:00	300:00

Module Details

Module 1: Introduction to the role of an Inland Capture Fisherman cum Primary Processor

Bridge Module

Terminal Outcomes:

- Discuss the job role of an Inland Capture Fisherman cum Primary Processor.

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the size and scope of the Agriculture industry and its sub-sectors. • Discuss the role and responsibilities of an Inland Capture Fisherman cum Primary Processor. • Identify various employment opportunities for an Inland Capture Fisherman cum Primary Processor. 	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of preparation for carrying out inland capture fisheries operation

Mapped to AGR/N5006 v2.0

Terminal Outcomes:

- Describe the process of preparing for the capture operation.
- Describe the process of planning the capture operation.

Duration: 15:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe various inland fishing methods and techniques. • Describe the process of selecting an appropriate fishing method based on the region, target species and their seasonal availability. • Explain the difference between active and passive fishing gears and their benefits. • Describe the process of selecting active or passive fishing gear, hook size, traps, mesh size and type of bait according to the target fish species and its size. • Explain different types of fishing crafts used for different types of inland waters. • Describe the process of selecting motorised or non-motorised fishing craft according to the quantity of fish to be caught. • Explain how to adjust the nets according to the fishing method and species to be captured. • Describe the process of estimating the relevant operational costs. • Explain the use of various equipment and accessories required for the capture operation such as the anchor, satellite phone, longline gear materials, live baits, navigation and fish finding equipment, relevant Personal Protective Equipment (PPE), first aid kit, etc. • Explain the importance of stocking 	<ul style="list-style-type: none"> • Demonstrate the process of carrying out routine checks and maintenance of the fishing craft. • Demonstrate the process of preparing the fishing gear such as nets, pots, traps for use.

<p>food, water and fuel on the boat in adequate quantity to last the capture operation.</p> <ul style="list-style-type: none"> • Explain the relevant arrangement required on the fishing craft for the safe storage of fish after being captured. • Explain the importance of checking the weather conditions and forecast to select an appropriate period of conducive weather for the fishing operation. • Describe the process of selecting the fishing grounds according to the shoaling behaviour of the target fish species and planning the route. • Describe the process of applying for and securing the required fishing permits and licenses for inland capture fisheries operations. 	
<p>Classroom Aids</p>	
<p>Training Kit (Trainer guide, Presentations). Whiteboard, Marker, Projector, Laptop</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>Dissection Box, Thermometer, Lead Line, Sechii Disk, Cut Models Of Petrol Diesel Engines, Working Models Of Inboard And Out Bard Engines, Models Of Traps And Pots, Various Netting Materials Such As Floats, Sinkers, Ropes And Twines, Anchors, Signals Etc. Different Kinds Of Hooks, Minimum One Motorised Boat, Oars, Anchor, Ropes Ect., Small Workshop For Teaching Various Knots, Net Making, Net Mending, Net Rigging, Fabrication Of Traps And Pots.</p>	

Module 3: Process of carrying out capture operation, primary processing and marketing of fish

Mapped to ARG/N5007 v2.0

Terminal Outcomes:

- Demonstrate the process of capturing the fish.
- Explain the appropriate safety measures to be taken while capturing the fish.
- Demonstrate the process of carrying out primary processing and marketing of the fish.
- Demonstrate various practices for effective resource optimisation.
- Demonstrate various waste management practices
- Discuss ways to promote diversity and inclusion at the workplace.

Duration: 20:00	Duration: 70:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain how to operate motorised and non-motorised fishing crafts. Explain how to capture fish following different active or passive fishing methods. • Explain the importance of ensuring no negative impact on natural habitats and ecological systems during fishing operations. • Describe the process of hauling and storing the catch in the fishing craft ensuring the recommended temperature and hygienic conditions. • State the appropriate precautionary measures to be taken to avoid collision with other fishing crafts. • State the applicable precautionary measures to be taken while fishing in isolation and deep waters. • Explain the applicable parameters to sort and grade the captured fish, such as weight, appearance, odour, market demand, etc. • State appropriate temperature to store the processed fish. • Describe the process of marketing the fish. • Explain the benefits of resource optimisation. • Explain the importance of recycling and disposing different types of 	<ul style="list-style-type: none"> • Explain how to steer the fishing craft to the identified fishing ground. • Demonstrate the use of fish finding equipment to detect the presence of fish. • Show how to anchor the fishing craft safely at the location. • Demonstrate the process of setting up the fishing gear at the identified location to capture the fish. • Demonstrate how to capture fish following the selected fishing method. • Show how to haul the catch in the fishing craft ensuring minimum damage to the catch. • Demonstrate the process of clean the fishing gear and relevant equipment used in the capture operation. • Demonstrate the use of the appropriate safety equipment while fishing in isolation and deep waters. • Demonstrate the process of sorting and grading the captured fish on relevant parameters. • Show how to de-scale the fish and remove the bones. • Demonstrate the process of carrying out gutting, dressing and cleaning of fish.

<p>waste as per the applicable regulations.</p> <ul style="list-style-type: none"> • Explain the importance of inclusion of all genders and People with Disability (PwD) at the workplace. 	<ul style="list-style-type: none"> • Demonstrate how to slice the fish into smaller pieces as per the requirement or consumer preferences. • Demonstrate the use of various e-payment methods. • Prepare a sample record of sales and payments manually and/ or electronically using the physical registers and/ or the relevant computer application. • Show how to calculate the benefit-cost (B: C) ratio. • Demonstrate various practices to optimise the usage of various resources such as water and electricity. • Demonstrate the process of recycling and disposing different types of waste appropriately. • Demonstrate appropriate verbal and non-verbal communication that is respectful of genders and disability.
<p>Classroom Aids</p>	
<p>Training Kit (Trainer guide, Presentations). Whiteboard, Marker, Projector, Laptop</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>GPS, VHF, Compass, Echo Sounder (Fish Finding Device, Motorised Vessel, Various Types Of Nets And Traps Used In Inland Fishing, Crates Baskets, Shovels, Gloves, Gumboots. Life Jackets, Ring Buoysects</p>	

Module 4: Process of preparing, canning, labelling and marketing fish-based products

Mapped to NOS AGR/N5125 v1.0

Terminal Outcomes:

- Demonstrate the process of preparing fish-based products.
- Describe the process of canning, labelling and marketing the fish products.

Duration: 30:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the process of curing the fish following an appropriate method such as sun-drying, salting, pickling, smoking, etc. • List different types of sashimi-grade fish. • Explain the applicable hygiene and safety standards Good Manufacturing Practices (GMP), Sanitation Standard Operating Procedure (SSOP), Good Hygiene Practices (GHP) and Hazard Analysis and Critical Control Points (HACCP). • Explain the importance of using tin cans coated with a Sulphur-resistant lacquer to can the fish. • Explain the use of an appropriate liquid medium/ additive such as Brine or double-refined and deodorised vegetable oil to improve the taste, texture and flavour of the fish. • State the recommended temperature for heat processing. • Explain the importance of cooling the heat-processed cans in chlorinated water of potable quality and storing the processed cans in a clean, cool and dry storage. 	<ul style="list-style-type: none"> • Demonstrate the process of carrying out the organoleptic evaluation of the catch. • Show how to freeze/ chill the fish following the recommended hygienic handling practices. • Demonstrate how to de-head the fish and remove the fins as per the Standard Operating Procedure (SOP). • Show how to gut the fish as per the requirement. • Demonstrate the process of washing the fish in distilled water. • Demonstrate the process of carrying out curing the fish following an appropriate method. • Demonstrate the process of carrying out cold/ hot blanching according to the species and size of the fish. • Demonstrate how to process un-filleted fish/ waste left after filleting through a fish meat bone separator to produce mince. • Demonstrate the use of drum perforations of varying diameter to produce mince of different textures. • Show how to prepare various products using the fish mince. • Demonstrate how to prepare pickles as per the SOP. • Demonstrate the process of preparing ready to eat fish curries.

	<ul style="list-style-type: none"> • Demonstrate the process of preparing different sashimi products such as saku, poke, loins, cubes, etc. • Demonstrate the use of tin cans to can the fish. • Demonstrate the process of carrying out the process of exhausting before sealing the cans to prevent oxidation in the cans. • Show how to seal the cans and carry out heat processing of the sealed cans at the recommended temperature. • Demonstrate the process of carrying out labelling of the fish products as per the industry standards. • Prepare a sample record of the data of processed cans.
Classroom Aids:	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 5: Safety and hygiene practices in capturing fisheries

Mapped to AGR/N5103 v2.0

Terminal Outcomes:

- Discuss how to adhere to onboard safe working practices.
- Describe various safety guidelines in water bodies.
- Describe various fish capturing and handling guidelines.

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • State the relevant regulations to be followed in the marine waters such as Coastal Regulation Zone (CRZ) guidelines. • Describe the process of using the relevant equipment to detect ships/boats in the vicinity and the appropriate measures to be followed to avoid collisions. • Describe the process of detecting underwater dangers along the fishing route and appropriate measures to be taken to mitigate them. • State the applicable laws related to fishing methods, use of different types of fishing gear, conservation of banned species, disposal of dead/damaged fish, etc. • Describe the process of identifying poisonous creatures caught with the fish. • State the temperature and hygiene requirements for storing the fish to maintain its freshness. 	<ul style="list-style-type: none"> • Demonstrate how to use fishing machinery and equipment safely following the manufacturer's instructions. • Demonstrate the process of carrying out regular testing and maintenance of the life-saving and firefighting equipment. • Demonstrate the use of life-saving equipment in case of rough weather/emergencies. • Show how to use the relevant equipment to detect ships/boats in the vicinity. • Demonstrate the process of detecting underwater dangers along the fishing route. • Demonstrate the process of Safely disposing the poisonous organisms caught with the fish. • Demonstrate the process of handling and cleaning the fish ensuring minimum damage to it.
Classroom Aids	
Training kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
Safety Equipment (Personal Floatation Devices Such as Life Jackets Or Lifeboat; Kill Switch; Fire Extinguisher; Rope; Signalling Devices Such As Handheld Flair, Rocket Parachute (Distress Rocket) Or Smoke Signal; Weather Radio, ILR, HRG Unit; Etc.); Life-Saving Appliances Such As SART And EPIRB; Anchor Supporting Equipment (Plow Style, Danforth Anchors, Mushroom Anchor); Personal Protective Equipment: Polarised Sunglasses, Sunscreen Of Required Sun Protection Factor, Foul Weather Gear.	

Module 6: 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	
10th Class		5	Inland Fishery Production and management			Inland capture fisherman cum primary processor with 5 Years of experience after 10th pass. Experience certificate issued by registered fisheries society/ Government Department of Fisheries/ corporates on official letter Head
Diploma	Fisheries/ Fish Processing Technology	3	Inland Fishery Production and management			Regular Diploma of more than 15 months in fisheries/ Fish Processing Technology
Graduate	Zoology / Agriculture / Food Technology	2	Inland Fishery Production and management			For the school Program minimum qualification of the Trainer should be Graduate (Fisheries Science/ Industrial Fish & Fisheries/ Zoology). Their teaching experience will be considered as industry experience
Graduate	Fisheries Science		Inland Fishery Production and management			

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role “ Inland Capture Fisherman cum Primary Processor ”, mapped to QP: “AGR/Q5003, v2.0”, 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, v2.0”. 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/ Zoology/ Aquaculture/ Inland aquaculture/ Freshwater Biology or related experience			Practical skills and knowledge required in catching fish from inland water bodies (Rivers, lakes etc)
B. Tech	Inland Aquaculture and related streams	4	In Fisheries Science/ Zoology/ Aquaculture/ Inland aquaculture/ Freshwater Biology or related experience			Practical skills and knowledge required in catching fish from inland water bodies (Rivers, lakes etc)
B. Sc	Fisheries and related streams	5	In Fisheries Science/ Zoology/ Aquaculture/ Inland aquaculture/ Freshwater Biology or related experience			Practical skills and knowledge required in catching fish from inland water bodies (Rivers, lakes etc)
M. Tech	Inland aquaculture/ Fish Processing Engineering and related streams	2	In Fisheries Science/ Zoology/ Aquaculture/ Inland aquaculture/ Freshwater Biology or related experience			Practical skills and knowledge required in catching fish from inland water bodies (Rivers, lakes etc)
M. F. Sc		2	In Fisheries Science/ Zoology/ Aquaculture/ Inland aquaculture/ Freshwater Biology or related experience			Practical skills and knowledge required in catching fish from inland water bodies (Rivers, lakes etc)
M. Sc	Fisheries and related streams	2	In Fisheries Science/ Zoology/ Aquaculture/ Inland aquaculture/ Freshwater Biology			Practical skills and knowledge required in catching fish from inland water

			or related experience			bodies (Rivers, lakes etc)
PhD	Fisheries Science and related streams	1	In Fisheries Science/ Zoology/ Aquaculture/ Inland aquaculture/ Freshwater Biology or related experience			Practical skills and knowledge required in catching fish from inland water bodies (Rivers, lakes etc)

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role “ Inland Capture Fisherman cum Primary Processor ”, mapped to QP: “AGR/Q5003, v2.0”, Minimum accepted score is 80%	Certified for the Job Role: “Assessor (Vet and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, “2.0”, 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. Multiple Choice Questions: To assess basic knowledge (Objective/Subjective)
2. Viva: To assess awareness on processes (Oral and/or written questioning)
3. Practical: 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 empaneled 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:

- GeoTagging 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:
 - Signed Attendance sheet
 - Assessor feedback sheet
 - Candidate feedback sheet

- Assessment checklist for assessor
 - Candidate Aadhar/ID card verification
 - Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
 - 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
AIS	Automatic Identification System
B:C Ratio	Benefit-Cost Ratio
CRS	Coastal Regulation Zone
GMP	Good Manufacturing Practices
GPS	Global Positioning System
HACCP	Hazard Analysis and Critical Control Point
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
QIM	Quality Index Method
SSOP	Sanitation Standard Operating Procedures