



QUALIFICATION FILE

Brackishwater Aquaculture Farmer

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☒ Apprenticeship

☒ Upskilling ☐ Dual/Flexi Qualification ☒ For ToT ☒ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 4

Submitted By:

Agriculture Skill Council of India

Unit No. 101, First Floor, Greenwoods Plaza, Block 'B', Greenwoods City, Sector 45, Gurugram -122009, Haryana.

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Section 1: Basic Details

1.	Qualification Name	Brackishwater Aquaculture Farmer																
2.	Sector/s	Agriculture																
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing qualification: QG-04-AG-00273-2023-V1.1-ASCI & Version 1.1	Qualification Name of existing/previous version: Brackishwater Aquaculture Farmer															
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-04-AG-03545-2025-V2-ASCI & Version 2.0	6. NCrf/NSQF Level: 4															
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																
8.	Brief Description of the Qualification	A Brackishwater Aquaculture Farmer is responsible for setting up a brackish water aquaculture farm, stocking, rearing and harvesting brackish water organisms such as fish and crustaceans. The person is also responsible for sorting, grading and marketing them.																
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12 or equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>10th Class Pass</td> <td>3 Years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>3</td> <td>Previous NSQF Level 3.5</td> <td>1.5 Years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>4</td> <td>Previous NSQF Level 3.0</td> <td>3 Years of relevant experience in Agriculture and allied sectors</td> </tr> </tbody> </table> b. Age: NA		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12 or equivalent		2	10th Class Pass	3 Years of relevant experience in Agriculture and allied sectors	3	Previous NSQF Level 3.5	1.5 Years of relevant experience in Agriculture and allied sectors	4	Previous NSQF Level 3.0	3 Years of relevant experience in Agriculture and allied sectors
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																
1	12 or equivalent																	
2	10th Class Pass	3 Years of relevant experience in Agriculture and allied sectors																
3	Previous NSQF Level 3.5	1.5 Years of relevant experience in Agriculture and allied sectors																
4	Previous NSQF Level 3.0	3 Years of relevant experience in Agriculture and allied sectors																
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrf))	Min: 13 Max: 15	11. Common Cost Norm Category (I/II/III) (wherever applicable): I															
12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																

13.	Training Duration by Modes of Training Delivery (<i>Specify Total Duration as per selected training delivery modes and as per requirement of the qualification</i>)	☒ Offline ☐ Online ☐ Blended					
		Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)
		Classroom (offline)	150	180	60		390
		Online					
		(Refer Blended Learning Annexure for details)					
14.	Aligned to NCO/ISCO Code/s (<i>if no code is available mention the same</i>)	NCO-2015/2132.0900					
15.	Progression path after attaining the qualification (<i>Please show Professional and Academic progression</i>)	Brackishwater Aquaculture Farmer (L4), Aquaculture Technician Supervisor (L5)					
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi					
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:					
18.	Is the Job Role Amenable to Persons with Disability	☒ Yes ☐ No If "Yes", specify applicable type of Disability: SHI					
19.	How Participation of Women will be Encouraged	Batches specific to women will be formed					
20.	Are Greening/ Environment Sustainability Aspects Covered (<i>Specify the NOS/Module which covers it</i>)	☒ Yes ☐ No DGT/VSQ/N0102 (v1.0)					
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☒ Yes ☐ No Colleges ☒ Yes ☐ No					
22.	Name and Contact Details of Submitting / Awarding Body SPOC (<i>In case of CS or MS, provide details of both Lead AB & Supporting ABs</i>)	Name: Ms Purnambica. K Email: standards@asci-india.com Website: www.asci-india.com Contact No.: 0124-4670029					
23.	Final Approval Date by NSQC: 18-02-2025	24. Validity Duration: 3 years post NSQC Approval			25. Next Review Date: 18-02-2028		

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Set up a Brackishwater aquaculture farm	AGR/N4956 (V1.0)	Core	4	2	20	40			60	30	40		30	100	20
2	Prepare the soil and manage the water quality	AGR/N4924 (V2.0)	Core	4	1	10	20			30	30	40		30	100	20
3	Stock and maintain the Brackishwater organisms and pond	AGR/N4925 (V2.0)	Core	4	2	15	45			60	30	40		30	100	20
4	Harvest, process and market the aquaculture organisms	AGR/N4923 (V4.0)	Core	4	2	15	45			60	30	40		30	100	20
5	Engage in collective farming/activity	AGR/N9922 (V2.0)	Non-Core	4	1	15	15			30	30	40		30	100	5
6	Follow the hygiene and safety practices in culture operations	AGR/N4955 (V2.0)	Non-Core	4	1	15	15			30	30	40		30	100	10
7	Employability Skills (60 Hours)	DGT/VSQ/N 0102 (V1.0)	Non-Core	4	2	60				60	20	30			50	5
8	OJT			4	2			60		60						
Duration (in Hours) / Total Marks					13	150	180	60		390	200	270		180	650	

Option 1: Crab

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Carry out crab culture	AGR/N4957 (v1.0)	Core	4	1	10	20			30	30	40		30	100	20

Option 2: Finfish

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Carry out finfish culture	AGR/N4958 (v1.0)	Core	4	1	10	20			30	30	40		30	100	20

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: ____% (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	10th Class with 7 years of relevant industry experience in Inland Fishery Production and management* *Brackishwater aquaculture farmer with 7 Years experience after 10th Pass Experience certificate issued by BDO/ Agriculture Officer/ Head of Grampanchayat/ Loan disbursing bank or financial institution on official letter Head
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		OR Diploma (Regular Diploma more than 15 months in fisheries) with 3 years of relevant industry experience in Inland Fishery Production and management OR Graduate (Zoology) with 3 years of relevant industry experience in 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 industry experience OR Graduate (Agriculture / Fisheries) with 2 years of relevant industry experience in Inland Fishery Production and management OR Graduate (Fisheries Science / Industrial Fish & Fisheries)
2.	Master Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	5 years of training experience in Inland Fishery Production and management after Graduation (Zoology) with 3 years of relevant industry experience in Inland Fishery Production and management OR 5 years of training experience in Inland Fishery Production and management after Graduation (Agriculture / Fisheries) with 2 years of relevant industry experience in Inland Fishery Production and management OR 5 years of training experience in Inland Fishery Production and management after Graduation (Fisheries Science / Industrial Fish & Fisheries)
3.	Tools and Equipment Required for Training	☒ Yes ☐ No <i>(If "Yes", details to be provided in Annexure)</i>
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	B.F.Sc with 4 years of relevant industry experience in Fisheries Science/Aquaculture/Applied aquaculture/ Marine fisheries or related streams or fields OR Graduation (Fisheries and related streams) with 5 years of relevant industry experience in Fisheries Science/Aquaculture/Applied aquaculture/ Marine fisheries or related streams or fields OR
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		M.F.Sc with 2 years of relevant industry experience in Fisheries Science/Aquaculture/Applied aquaculture/ Marine fisheries or related streams or fields OR Post-Graduation (Fisheries/Applied Aquaculture/Marine Biology and related streams) with 2 years of relevant industry experience in Fisheries Science/Aquaculture/Applied aquaculture/ Marine fisheries or related streams or fields OR PhD (Fisheries Science/Aquaculture and related streams) with 1 year of relevant industry experience in Fisheries Science/Aquaculture/Applied aquaculture/ Marine fisheries or related streams or fields
2.	Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Diploma/Graduate (It is mandatory for a proctor to have technical knowledge/IT knowledge Once a proctor has been on-boarded by any AA, they are oriented about skill ecosystem along with do's and don'ts .)
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	M.F.Sc with 10 years of relevant industry experience in Fisheries Science/Aquaculture/Applied aquaculture/ Marine fisheries or related streams or fields OR Post-Graduation (Fisheries/Applied Aquaculture/Marine Biology and related streams) with 10 years of relevant industry experience in Fisheries Science/Aquaculture/Applied aquaculture/ Marine fisheries or related streams or fields
4.	Assessment Mode <i>(Specify the assessment mode)</i>	Offline
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☒ Yes ☐ No <i>(details to be provided in Annexure-if it is different for Assessment)</i>

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): No
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 4
5.	Estimated nos. of persons to be trained and employed: 5000

6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes Concurrence received from Dep of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying
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Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	Annexure-1
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Annexure-2
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Annexure-5
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Annexure-6
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	NA
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	NA
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	Annexure-7
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	Brackishwater Aquaculture Farmer (L4), Aquaculture Technician Supervisor (L5)
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	Annexure-8
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	Annexure-9
12.	Any other document you wish to submit:	

Annexure 1: Evidence of Level

NCrf/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrf/NSQF level descriptor	NCrf/NSQF Level
Professional Theoretical Knowledge/Process	- Establish the aquaculture farm - Carry out soil conditioning - Stock the brackishwater organisms - Maintain the pond	A Brackishwater Aquaculture Farmer is responsible for setting up a brackishwater aquaculture farm, stocking, rearing and harvesting brackishwater organisms such as fish and crustaceans. The person is also responsible for sorting, grading and marketing them	4

	- Harvest the aquaculture organisms - Create or join PGs/ FIGs/ SHGs - Prepare for crab culture		
Professional and Technical Skills/ Expertise/ Professional Knowledge	- Practice inclusion at work - Follow the safety protocols - Maintain the health of cultured organisms - Maintain the water body and its hygiene - Carry out disease management	The job holder is expected to have knowledge of brackish water aquaculture procedures, water salinity and pH levels as required for the fish, acidity levels of the soil, optimal soil and water physico chemical parameters, importance of aeration and water exchange, identification of sick organisms in culture system, need for appropriatediet composition of each variety of aquatic organisms in culture system, salinity levels of brackish water ponds, good water quality parameters, different feed types and routines for different species, growth cycle of the species and the growth environment, diseases, quarantining processes, treatments, and contamination, selection of healthy post-larvae, better management practices - optimum stocking density, avoiding excess feeding and maintaining good water quality parameters	4
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	- Optimise resource utilisation - Sort, grade and store the aquaculture organisms - Market the aquaculture organisms - Participate in collective farming/activity - Maintain the water body and its hygiene - Carry out crab nutrition and health management - Carry out nutrition management	The job holder is expected to recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool, using quality concepts. For instance, the job holder has to take on the spot decisions to overcome any abnormal situation, plan for procurement of seed or organisms on time, plan to arrange materials such as feed, fertilizers and chemicals etc. in advance, plan to utilize time and equipments effectively, manage relationships with workers and other co-farmers, attend and make necessary use of exposure visit, study the problem and provide a best solution, detect problems such as contamination, infections etc., monitor the farm conditions and condition of aquatic animals and suggest improvements about the aquaculture processes, technical knowledge about target species, its rearing and feeding.	4

Broad Learning Outcomes/Core Skill	• Identify a site and species for brackishwater aquaculture • Identify and arrange the resources • Manage the water quality • Carry out feed management	The job holder is expected to possess language to communicate both in written and oral with required clarity, he/she should be able to read internal information documents sent by internal teams, read and keep a log of important information, prepare and follow checklists for smooth management, prepare and maintain inventories of feed, medicines, chemicals and other equipment and estimate the total harvest and accordingly contact the prospective buyers, implement the marketing procedures for organisms, identify demand of organisms in the market to overcome situation compelling distress sale of organisms, maintain a record of harvest and sale proceeds, record cost of inputs such as aeration filters and other miscellaneous expenditures, identify markets where organisms can fetch reasonable price, test the water quality periodically, ascertain how to sustain adequate natural food production in the pond and to maintain appropriate levels of oxygen, monitor the pH level of the soil, correct soil pH levels through processes such as leaching, liming, etc., ensure that the required amount of dissolved oxygen is present for the fish, ensure the pH level of the water is maintained slightly alkaline ensure that decomposing organic waste causing the pH levels of the brackish water ponds to drop very low, is remedied through refreshing of pond water, etc. Management (CRM) with farmers for the timely payment of loan EMIs, assist the farmers in restructuring of short-term loans during times of adversities, as per the applicable guidelines. rocks, pebbles, etc.; fill the aquarium with the recommended quantity of treated water for the selected species.; acclimatize the fish before stocking in the aquarium; feed the aquarium fish with nutritionally balanced feed as per the feeding schedule; carry out a regular sampling of the water to ensure the recommended levels of pH, ammonia, nitrite and salinity; carry out cleaning of the aquarium to remove feed residue and any waste material from the aquarium; treat the quarantined fish with the prescribed	4
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		treatment.	
Responsibility	- Setting up aquaculture farm - Sorting, grading and marketing - Harvesting brackishwater organisms - Render appropriate emergency procedures - Perform pre start checks, maintain a clean and efficient workplace	A Brackishwater Aquaculture Farmer is responsible for setting up a brackishwater aquaculture farm, stocking, rearing and harvesting brackishwater organisms such as fish and crustaceans. The person is also responsible for sorting, grading and marketing them. the aquarium for parasites and any undesirable growth that may threaten the balance of the reef system;5. check the protein skimmers and filtration equipment for correct functioning to ensure efficient removal of waste matters and optimum water quality in the aquarium; carry out regular cleaning of the aquarium to remove feed residue and any waste materials	4

Annexure 2: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Benchtop pH meter	Nos	1
2	Secchi disc	Nos	1
3	Volumetric flask/Flat bottom flask/ Round bottom flask	Nos	1
4	Burette stand	Nos	1
5	Burette	Nos	1
6	Pond lining material	Nos	1
7	Anti Bird net	Nos	1
8	Test tube	Nos	1
9	BOD analyser	Nos	1
10	Bag nets	Nos	1
11	Water pumps	Nos	1
12	Conductivity meter	Nos	1
13	Dissolved oxygen analyser	Nos	1

14	Dropper	Nos	1
15	Thermometer	Nos	1
16	Measuring cylinder	Nos	1
17	Check trays	Nos	1
18	Cast nets	Nos	1
19	Glass funnel	Nos	1
20	FRP tanks	Nos	1
21	Plankton nets	Nos	1
22	Video Recording Equipment	Nos	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Markers

Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Elim chem private ltd	Dr. Narasimha Murty Kinjarapu	GM-Technical & Product Development Manager	East Godavari	9885867640	narasimhaau@gmail.com	
2	Aum Academia Private Limited	Damodar Satapathy	Director	Bhubaneswar	9861077340	dsp1959satapathy@gmail.com	
3	KVK, Changlang	Dr. Devendra Singh Chhonkar	Senior Scientist & Head	Jairampur	8119976400	kvkchanglang@gmail.com	
4	Reclamation Fish and Crops Private Limited	Indumati Nanda	Director	Bhubaneswar	6371694908	info.reclamationfc@gmail.com	

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities

2025-26	500					
2026-27	500					
2027-28	1000					

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
3.0	2024-25	980	859	817	0	492	412	409	0	0	0	0	0
	2023-24												
	2022-23												

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

1. NFDB RPL

Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available: Hindi and English

Annexure 5: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

	Assessment Criteria for Outcomes		Theory Marks	Practical Marks	Project Marks	Viva Marks
AGR/N4956: Set up a brackishwater aquaculture farm	<i>Identify a site and species for brackishwateraquaculture</i>		8	12		8
	PC1.	identify a site for the construction of brackishwater aquaculture farm based on thequality of water source, soil characteristics, topography, provision of drainage, etc.	-	-	-	-
	PC2.	ensure the site has availability of inputs required for brackishwater aquaculture such as quality seeds, potable water,	-	-	-	-
		reliable power supplyalong with accessibility to the relevant market(s)				
	PC3.	identify the appropriate fish and crustaceanspecies to culture inbrackishwater	-	-	-	-
		<i>Identify and arrange the resources</i>	12	14		12
		identify various resources required for settingup a brackishwater				

	PC4.	aquaculture farm such as quality seeds, feed/ feed ingredients, tools and equipment, pond construction material, Personal Protective Equipment (PPE), etc.	-	-	-	-
	PC5.	estimate the cost of setting up the brackishwater aquaculture farm	-	-	-	-
	PC6.	identify the relevant government schemes and financial institutions with the provision of support for brackishwater aquaculture farming	-	-	-	-
	PC7.	arrange the funds required for setting up the brackishwater aquaculture farm	-	-	-	-
	PC8.	purchase the necessary resources in the required quantity	-	-	-	-
	PC9.	store the resources in an appropriate storage	-	-	-	-
		<i>Establish the brackishwater aquaculture farm</i>	10	14		10
	PC10.	prepare a layout for the farm making provision for the appropriate type of pond such as the nursery pond, rearing pond and stocking ponds as per the requirement	-	-	-	-
	PC11.	co-ordinate with a pond-construction expert for the construction of the pond and water-tight dykes as per the layout	-	-	-	-
	PC12.	ensure the ponds have controllable water inlet and outlet	-	-	-	-
	PC13.	install water pumps to pump in/ out water into and from the ponds	-	-	-	-
	NOS Total		30	40		30
AGR/N4924: Prepare the soil and manage the water quality		<i>Carry out soil conditioning</i>	8	10		10
	PC1.	check the soil's pH level using a pH meter	-	-	-	-
	PC2.	adjust the soil pH level by applying lime or gypsum	-	-	-	-
	PC3.	ensure the soil is capable of holding water	-	-	-	-
		<i>Manage the water quality</i>	12	16	-	12
	PC4.	ensure optimum pond temperature according to the season, to avoid stress to the fish	-	-	-	-
	PC5.	check that optimum level of dissolved oxygen is present in the pond water	-	-	-	-
	PC6.	maintain the recommended levels of salinity and alkalinity according to the fish/crustacean species to be cultured	-	-	-	-
	PC7.	ensure optimum depth and stocking density for the species to be cultured	-	-	-	-
		remove the decomposing organic waste material causing the pH levels to				

	PC8.	drop low, byreplacing the pond water	-	-	-	-
	PC9.	monitor the quality of water against the relevant quality parameters, regularly	-	-	-	-
		<i>Optimise resource utilisation</i>	10	14	-	8
	PC10.	treat the wastewater for recycling by applying lime or the approved disinfectant(s)	-	-	-	-
	PC11.	check the quality parameters of the treated water for its suitability for re-use	-	-		-
	PC12.	utilise the recycled water for cultureoperations	-	-	-	-
	PC13.	optimise the usage of water/ electricity/ materials in various tasks/ activities/ processes	-	-	-	-
		NOS TOTAL	30	40		30
		<i>Stock the brackishwater organisms</i>	6	6		6
AGR/N4925: Stock and maintain the brackishwater organisms and pond	PC1.	stock the selected brackishwater organisms in the culture unit maintaining the recommendedstocking density and species ratio	-	-	-	-
	PC2.	apply lime, fertilizers and other recommended treatment in an appropriatequantity in the culture unit to stimulate theproduction of natural food organisms	-	-	-	-
		<i>Carry out feed management</i>	6	8		6
	PC3.	identify the optimum feed size for the various stages of growth of the	-	-	-	-
		stocked organisms such as fish and crustaceans				
	PC4.	procure the feed ingredients and/or prepared feed in a timely manner to ensureadequate stock during the culture operation	-	-	-	-
	PC5.	feed the organisms wet feed/ floating feed/pellets as per the recommended diet composition and schedule	-	-	-	-
	PC6.	identify and dispose rancid feed	-	-	-	-
	PC7.	follow the recommended practices to ensure maximum feed utilisation	-	-	-	-
		<i>Carry out disease management</i>	6	10		6

	PC8.	follow the recommended practices to prevent pathogens and disease in the pond	-	-	-	-
	PC9.	monitor the stocked organisms for signs of stress	-	-	-	-
	PC10.	identify pathogen and disease infestation in the pond	-	-	-	-
	PC11.	apply the necessary treatment in the recommended quantity to remove the pathogens and disease from the pond	-	-	-	-
		<i>Maintain the pond</i>	8	10		8
	PC12.	monitor the pond inlets and outlets for brackish water exchange	-	-	-	-
	PC13.	maintain the recommended salinity, pH, oxygen, temperature and water levels in the pond	-	-	-	-
	PC14.	identify and remove algae growing in the pond to ensure stocked organisms receive the required feed and nutrition	-	-	-	-
	PC15.	check for cannibalism in the pond and take appropriate measures to mitigate it and maintain the survival rate	-	-	-	-
	PC16.	remove sludge from the pond regularly	-	-	-	-
	PC17.	carry out regular maintenance in the pond such as repairing the nets and dykes	-	-	-	-
		<i>Perform waste management</i>	4	6		4
	PC18.	segregate waste into different categories	-	-	-	-
	PC19.	dispose the non-recyclable waste in an environment-friendly manner and	-	-	-	-
		recycle the recyclable waste appropriately				
		NOS Total	30	40		30
		<i>Harvest the aquaculture organisms</i>	12	14		10
		check the aquaculture organisms to ensure they have attained the				

AGR/N4923: Harvest, process and market the aquaculture organisms	PC1.	marketable size and are ready for being harvested	-	-	-	-
	PC2.	select an appropriate time of the day and method to harvest the aquaculture organisms such as ring seine, hook and line, traps and pots, trawling, purse seining, etc.	-	-	-	-
	PC3.	prepare the fishing gears required for fish harvesting				
	PC4.	using the appropriate tools and equipment such as dip net, drag net, cast net, portable lift net, gill nets according to the selected method	-	-	-	-
	PC5.	harvest the aquaculture organisms partially or completely according to the local demand and proximity to the relevant markets/ buyers	-	-	-	-
	PC6.	protect the aquaculture organisms from stress, damage and contamination during harvesting	-	-	-	-
	PC7.	maintain the record of harvested organisms	-	-	-	-
		<i>Sort, grade and store the aquaculture organisms</i>	6	14		10
	PC8.	carry out sorting of organisms as per the relevant criteria such as species and maturity	-	-	-	-
	PC9.	grade the organisms manually or mechanically on appropriate quality parameters such as size and appearance	-	-	-	-
	PC10.	store the organisms in ideal small containers in hygienic conditions at the recommended temperature and humidity before and after processing	-	-	-	-
	PC 11	use crushed ice for storing the harvested fish				
		<i>Market the aquaculture organisms</i>	10	12		10
	PC12.	identify the market demand and potential buyers of the harvested aquaculture organisms	-	-	-	-
	PC13.	contact the buyer(s) and negotiate the price	-	-	-	-
	PC14.	accept the order(s) and pack the organisms in appropriate containers for being transported to the market/ buyer	-	-	-	-
	PC15.	maintain the optimum density while	-	-	-	-

		packing to ensure minimum stress to the organisms during transit				
	PC16.	follow the recommended practices to save the produce from contamination during packing and transit	-	-	-	-
	PC17.	arrange an appropriate mode of transport/refrigerated vans to deliver the harvest from the harvesting to the processing or market site organisms to the buyer	-	-	-	-
	PC18.	use the relevant e-payment method such as Aadhaar Enabled Payment System (AEPS), Unified Payment Interface (UPI), Unstructured Supplementary Service Data (USSD) payment, etc.	-	-	-	-
	PC19.	maintain the record of sales and payments	-	-	-	-
	PC20.	calculate the benefit-cost (B:C) ratio	-	-	-	-
		NOS Total	30	40		30
AGR/N9922: Engage in collective farming/activity	<i>Create PGs/ FIGs/ SHGs</i>		6	8		6
	PC1.	identify farmers/ groups with the common interests in the area	-	-	-	-
	PC2.	create Producer Groups (PGs)/Farmers Interest Groups (FIGs)/ Self-Help Groups (SHGs), following the applicable rules and regulations	-	-	-	-
		<i>Prepare for the PG/ FIG/ SHG operations</i>	6	10		6
	PC3.	organise fundraising activities to support the functioning of the group	-	-	-	-
	PC4.	establish links with the local government at panchayat level to obtain access to the relevant development programmes and funds	-	-	-	-
	PC5.	induct subject matter experts (SMEs) in the group	-	-	-	-
	PC6.	assist in arranging the required Information and Communication Technology (ICT) products for the group	-	-	-	-
	PC7.	plan the commodity convergence with the relevant developmental programmes	-	-	-	-
	PC8.	plan optimal production to meet the market and household food security needs	-	-	-	-

	<i>Conduct/ participate in group meetings and training sessions</i>	8	6		8
PC9.	conduct the initial group meetings to introduce the members, discuss the group objectives, group income- generating enterprises/ activities, methods of operation, etc.	-	-	-	-
PC10.	assist in exchanging the domain and technical knowledge such as market or price information, latest technology, and resolving common issues or conflicts through the PG/ FIG/ SHG meetings	-	-	-	-
PC11.	organise capacity building exercises such as skill development and training programmes	-	-	-	-
	<i>Carry out collective farming/ activities</i>	10	16		10
PC12.	organise field trials to identify and resolve problems encountered by group members in the field operations	-	-	-	-
PC13.	procure/hire advanced and expensive farm machineries/tools and equipment using the group fund for collective use of the group members	-	-	-	-
PC14.	establish and manage the group-owned bank of quality seeds/ fertilisers/ pesticides/ tools and equipment, etc	-	-	-	-
PC15.	use the group's credit facility as per the applicable terms and conditions	-	-	-	-
PC16.	carry out relevant duties as per own role in the PG/FIG/ SHG such as the group leader/ secretary/book-keeper, etc.	-	-	-	-
PC17.	co-ordinate within the group(s) in procuring inputs in bulk/large-scale farming, packing/ transportation/ marketing of the produce, etc.	-	-	-	-
PC18.	assist in forming forward and backward linkages through the PGs/ FIGs/ SHGs	-	-	-	-
PC19.	identify and follow the relevant practices to add value to the produce such as processing, packing, upgrading the quality, etc.	-	-	-	-
PC20.	arrange for the regular repair and maintenance of the farm machineries/tools, equipment/tube/bore wells/storage/drying platforms/processing units, etc.	-	-	-	-
PC21.	connect and partner with other groups to expand the network and address common problems at a large scale	-	-	-	-

	NOS Total	30	40		30
AGR/N4955: Follow the hygiene and safety practices in culture operations	<i>Maintain the water body and its hygiene</i>	10	15	-	10
	PC1. follow the recommended practices to protect the aquaculture farm from different types of threats such as storms, predatory birds, harmful organisms, poachers, etc.	-	-	-	-
	PC2. carry out regular maintenance of the dyke and fences in the culture pond	-	-	-	-
	PC3. identify and remove the preying organisms from the culture pond or tank	-	-	-	-
	PC4. remove sludge, algae, uneaten feed and any other waste materials from the culture pond or tank	-	-	-	-
	PC5. apply the necessary disinfectants or preventive treatment in the culture pond or tank to prevent disease outbreak and the growth of harmful organisms	-	-	-	-
	<i>Maintain the health of cultured organisms</i>	10	15	-	10
	PC6. follow the recommended practices to protect the cultured organisms from the air, water or fomite-borne contamination and diseases	-	-	-	-
	PC7. sample the cultured organisms regularly to identify the signs of stress/ disease/ phenotypic disorders and the presence of parasites and pathogens	-	-	-	-
	PC8. identify, quarantine and treat the unhealthy organisms following the recommended practices	-	-	-	-
	PC9. monitor the quarantined organisms for signs of improvement and restock them in the culture pond or tank on complete recovery	-	-	-	-
	PC10. remove the dead and moribund organisms and dispose them in an environment-friendly manner	-	-	-	-
	<i>Maintain personal health and safety</i>	10	10	-	10
	PC11. check the relevant Personal Protective Equipment (PPE) before use and repair or replace it, as required	-	-	-	-
	PC12. use the relevant PPE during various aquaculture operations such as the application of hazardous chemicals	-	-	-	-
	PC13. use the recommended soap or sanitiser to keep hands sanitised	-	-	-	-
	store hazardous chemicals, tools and equipment in the safe storage area to				

	PC14.	avoid personal harm or injury	-	-	-	-
	PC15.	administer first-aid to the injured personnel and co-ordinate with the emergency services for further medical attention	-	-	-	-
		NOS Total	30	40		30
AGR/N4957: Carry out crab culture (Optional)		<i>Prepare for crab culture</i>	8	6	-	8
	PC1.	select an appropriate method for crab culture i.e. grow-out culture or fattening	-	-	-	-
		according to the quantity of crabs to be cultured				
	PC2.	construct a pond of the recommended depth and size	-	-	-	-
	PC3.	carry out preparation activities for a perennial pond i.e. draining, sun-drying and applying lime	-	-	-	-
	PC4.	procure the material required for constructing the cage such as Galvanized Iron (GI), High-Density Poly Ethylene (HDPE) pipes and fittings, etc.	-	-	-	-
	PC5.	co-ordinate with a cage fabricator for the fabrication of cage of appropriate size according to the selected culture method	-	-	-	-
	PC6.	ensure that cage is installed at the recommended depth in the water to allow the crabs to draw fresh air	-	-	-	-
	PC7.	immerse the cage in the water and tie it for support	-	-	-	-
	PC8.	install fences around the pond using bamboo poles and nets	-	-	-	-
		<i>Stock the crabs</i>	6	8	-	4
	PC9.	select a species of crab to culture according to its suitability to the local climate and profitability	-	-	-	-
	PC10.	collect healthy juvenile crabs of the selected species from the sea or purchase from a vendor in the required quantity	-	-	-	-
	PC11.	acclimate the crabs before stocking to prevent thermal and salinity shock	-	-	-	-
	PC12.	stock the crabs in low-temperature water during early morning or evening	-	-	-	-

PC13.	maintain the recommended stock density for the species of crab	-	-	-	-
	<i>Carry out crab's nutrition and health management</i>	6	8	-	6
PC14.	feed the crabs with the mixed diet of brown mussels and trash fish in the recommended quantity and as per the feeding schedule	-	-	-	-
PC15.	add supplementary feed and adjust the feeding rate as per the requirement	-	-	-	-
PC16.	maintain the recommended levels of temperature, salinity, dissolved oxygen, and pH in the pond	-	-	-	-
PC17.	follow the necessary measures to prevent the cannibalism, disease and pest infestation among the crab	-	-	-	-
PC18.	sample crab, soil and water regularly to ensure healthy conditions for the growth of crabs and identify any problems	-	-	-	-
PC19.	identify and quarantine the diseased crabs	-	-	-	-
PC20.	apply the recommended treatment to cure the diseased crabs or consult a specialist	-	-	-	-
PC21.	monitor the quarantined crabs for signs of improvement	-	-	-	-
	<i>Maintain the pond and cage</i>	4	8	-	6
PC22.	clean the cages and water in the pond regularly to avoid fouling, contamination and disease outbreak	-	-	-	-
PC23.	remove the feed and sludge deposits from the pond's bottom regularly	-	-	-	-

	PC24.	carry out regular repair and maintenance of the pond and cage	-	-	-	-
		<i>Harvest the crabs</i>	4	6	-	4
	PC25.	check the crabs periodically to see if they have attained the required level of hardness for being harvested	-	-	-	-
	PC26.	harvest the crabs at low temperature in the early morning or evening	-	-	-	-
	PC27.	wash the harvested crabs to remove dirt and mud	-	-	-	-
	PC28.	sort and grade the crabs on the relevant parameters	-	-	-	-
	PC29.	record data with respect to harvesting, sorting and grading of crabs	-	-	-	-
	PC30.	tie the crabs ensuring no damage to them	-	-	-	-
	PC31.	store the harvested crabs at the recommended temperature and humidity away from sunlight	-	-	-	-
		<i>Market the crabs</i>	2	4	-	2
	PC32.	identify the buyers of harvested crabs	-	-	-	-
	PC33.	negotiate the price and accept the order	-	-	-	-
	PC34.	pack and transport the crabs protecting them from excess temperature, stress and damage	-	-	-	-
	PC35.	maintain the record of sale and payments	-	-	-	-
		NOS Total	30	40	-	30
AGR/N4958: Carry out		<i>Stock and raise fry</i>	8	6	-	6

finfish culture (Optional)	PC1.	select the finfish species to rear according to its suitability to local climate and market demand	-	-	-	-
	PC2.	collect finfish fry from the sea or an authorised vendor in the required quantity	-	-	-	-
	PC3.	prepare the pond/ tank for nursery rearing of fry to the fingerling stage	-	-	-	-
	PC4.	stock the fry in the pond/ tank maintaining the recommended stocking density for the selected finfish species	-	-	-	-
	PC5.	feed the fry with the recommended quantity of feed and add the supplementary feed as per the requirement	-	-	-	-
	PC6.	adjust the feeding rate according to the species stocked in the pond/ tank	-	-	-	-
	PC7.	change the water in the pond/ tank regularly to maintain the water quality	-	-	-	-
	PC8.	rear the fry in the pond until they attain the size of fingerlings	-	-	-	-
		Stock fingerlings in the grow-out cage	4	6	-	4
	PC9.	grade and starve the fingerlings for the recommended period before being moved to the grow-out cage	-	-	-	-
	PC10.	acclimate and move the fingerlings to the grow-out cage	-	-	-	-
	PC11.	maintain high stocking density with low volume or low stocking density with high volume according to the species and cage's capacity	-	-	-	-
		<i>Carry out nutrition management</i>	6	4	-	6
	PC12.	feed the fingerlings as per their feeding schedule ensuring to include the required nutrients in the recommended quantity according to their stage of growth	-	-	-	-

	PC13.	use mechanical feeders such as demand feeder and automatic feeder along with feeding tray/ rings to feed a large quantity of fingerlings	-	-	-	-
	PC14.	store the feed in dry and hygienic storage to prevent fungal attack	-	-	-	-
	PC15.	identify and discard unsuitable feed safely	-	-	-	-
	PC16.	apply necessary changes to the feed according to the various factors such as biological, climatic, water quality, etc.	-	-	-	-
		Carry out disease management	4	8	-	6
	PC17.	follow the recommended practices to prevent disease and unwanted organisms in the cages such as application of the recommended disinfectants	-	-	-	-
	PC18.	sample the stocked fingerlings regularly and monitor for abnormal behaviour	-	-	-	-
	PC19.	identify and remove the carnivorous fish from the pond	-	-	-	-
	PC20.	identify insect and disease infestation in the cages	-	-	-	-
	PC21.	apply the approved treatment or chemicals in the recommended quantity	-	-	-	-
		to cure disease while preventing adverse effect on the produce and environment				
	PC22.	maintain the record of fish growth, disease, mortalities along with the use of chemical treatments	-	-	-	-
		Maintain the pond and cage	4	8	-	4
	PC23.	remove the faeces and uneaten feed from the cages regularly	-	-	-	-

	PC24.	clean the nets installed in the pond/ tank regularly to prevent algae from growing	-	-	-	-
	PC25.	moor cages at the recommended depth to allow waste in the cages to flush away with the water current	-	-	-	-
	PC26.	carry out regular repair and maintenance of the cages, moorings, anchors, nets, etc.	-	-	-	-
		<i>Harvest and market the fish</i>	4	8	-	4
	PC27.	rear the fingerlings in the cage until they attain the size of marketable fish	-	-	-	-
	PC28.	harvest the fish in a single lot or batches using the appropriate harvesting method and equipment e.g. using a scoop net after lifting the cage	-	-	-	-
	PC29.	store the harvested fish at the recommended temperature and humidity	-	-	-	-
	PC30.	arrange for appropriate packing material and mode of transport to ship the produce to the market	-	-	-	-
	NOS TOTAL		30	40		30
DGT/VSQ/N0102: Employability Skills (60 Hours)	<i>Introduction to Employability Skills</i>		1	1	-	-
	PC1.	identify employability skills required for jobs in various industries	-	-	-	-
	PC2.	identify and explore learning and employability portals	-	-	-	-
		<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC3.	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.				-

			-	-	-	
	PC4.	follow environmentally sustainable practices	-	-	-	-
		<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
	PC5.	recognize the significance of 21st Century Skills for employment	-	-	-	-
	PC6.	practice the 21st Century Skills such as Self-Awareness, Behaviour 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	-	-	-	-
		<i>Basic English Skills</i>	2	3	-	-
	PC7.	use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
	PC8.	read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
	PC9.	write short messages, notes, letters, e-mails etc. in English	-	-	-	-
		<i>Career Development & Goal Setting</i>	1	2	-	-
	PC10.	understand the difference between job and career	-	-	-	-
	PC11.	prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-

		<i>Communication Skills</i>	2	2	-	-
	PC12.	follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
	PC13.	work collaboratively with others in a team	-	-	-	-
		<i>Diversity & Inclusion</i>	1	2	-	-
	PC14.	communicate and behave appropriately with all genders and PwD	-	-	-	-
	PC15.	escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
		<i>Financial and Legal Literacy</i>	2	3	-	-
	PC16.	select financial institutions, products and services as per requirement	-	-	-	-
	PC17.	carry out offline and online financial transactions, safely and securely	-	-	-	-
	PC18.	identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
	PC19.	identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
		<i>Essential Digital Skills</i>	3	4	-	-
	PC20.	operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
	PC21.	use e-mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
	PC22.	use basic features of word processor, spreadsheets, and presentations	-	-	-	-
		<i>Entrepreneurship</i>	2	3	-	-
		identify different types of Entrepreneurship and Enterprises and assess				

	PC23.	opportunities for potential business through research	-	-	-	-
	PC24.	develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
	PC25.	identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
		<i>Customer Service</i>	1	2	-	-
	PC26.	identify different types of customers	-	-	-	-
	PC27.	identify and respond to customer requests and needs in a professional manner.	-	-	-	-
	PC28.	follow appropriate hygiene and grooming standards	-	-	-	-
		<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
	PC29.	create a professional Curriculum vitae (Résumé)	-	-	-	-
	PC30.	search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
	PC31.	apply to identified job openings using offline /online methods as per requirement	-	-	-	-
	PC32.	answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
	PC33.	identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
		NOS Total	20	30	-	-

Annexure 6: 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

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 empanelled 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 ground through qualified and ToA certified assessors.

While it is important that an individual has adequate knowledge and skills to perform a specific task, weight age for different aspects for assessment are 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 assessment; ASCI will certify the learners/candidates

2. Testing Environment

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

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

- Multilingual assessments (ASCI is conducting 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 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 training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- 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 practical 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 question, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on same day. In case of more number of candidates, 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 usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling job situation

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

3. 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, behavioral traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by 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 which 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 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 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, do's and don'ts, subjective questions to check understanding of practical tasks.

Assessor has to go through orientation program organized by Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. Assessor shall be given a NOS and PC level overview of each QP as applicable. 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 which will maintain standardization of marking scheme.

4. Type of Evidence and Evidence Gathering Protocol:

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

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidences (photos and videos) to the assessor one day prior to the assessment. List is mentioned below:
 - Signed Attendance sheet
 - Assessor feedback sheet
 - Candidate feedback sheet
 - Assessment checklist for assessor
 - Candidate Aadhar/ID card verification
 - Pictures of classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
 - Pictures and videos of Assessment, training feedback and infrastructure.
- Apart from the Assessor, Technical assistant popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of assessment, regular calls and video calls are done.
- On-boarding and training of assessor and proctor is done on timely basis to ensure that quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

5. 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 check on assessment quality and ensure assessment is carried out in fair and transparent manner
- Aadhar verification of candidates
- Evening Check (Post Assessment): Calls are made to the ground team to ensure event is over by what time and the documentation is done in proper manner or not.
- TP Calling: To keep check on malpractice activity, independent audit team calls to TP on recorded line to take confirmation if there was any malpractice activity observed in assessment on part of AA/SSC team. If calls are not connected, email is send to TP Spoc for taking their confirmation
- Video and Picture Evidence: Backend team collects video and pictures for assessment on real time basis and highlights any issue like, Students sitting idle/trainer allowed for helping out candidates during assessment.
- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and do surprise audit for assessment process carried out by ground team.
- Geo Tagging: On day of assessment, each technical spoc is required to login in our internal app which is Geo tagged. Any deviation with centre address needs to be highlighted to assessment team on real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI has fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks forms the basis of the results and encrypted files generated to avoid data manipulation. All responses captured and stored in System with Time-Stamped at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Maker Checker concept: 1 person prepares results and other audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All soft copy of documents is received from the on-ground tech team over mail. The same are downloaded by our internal backend team and saved in Repository. The repository consists of scheme wise folders. These scheme wise folders have 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 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 candidate shall be stored and available for review (retained for 5 years/ till conclusion of project or scheme)

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations

NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf