



QUALIFICATION FILE

Aquaculture Worker

☒ 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: 2.5

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	Aquaculture Worker																			
2.	Sector/s	Agriculture																			
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing qualification: 2022/AGR/ASCI/06532 & Version 1.0	Qualification Name of existing/previous version: Aquaculture Worker																		
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																			
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-2.5-AG-03556-2025-V2-ASCI & Version 2.0	6. NCrf/NSQF Level: 2.5																		
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	An Aquaculture Worker is responsible for assisting in performing pre-stocking, stocking and post-stocking activities. The person also assists in performing harvesting, post-harvesting and regular repair and maintenance activities																			
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>9th grade pass</td> <td></td> </tr> <tr> <td>2</td> <td>8th grade pass</td> <td>1.5 years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>3</td> <td>5th grade pass</td> <td>6 years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>4</td> <td>Previous NSQF level 2</td> <td>0.5 year of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>5</td> <td>Previous NSQF level 1</td> <td>1.5 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	9th grade pass		2	8th grade pass	1.5 years of relevant experience in Agriculture and allied sectors	3	5th grade pass	6 years of relevant experience in Agriculture and allied sectors	4	Previous NSQF level 2	0.5 year of relevant experience in Agriculture and allied sectors	5	Previous NSQF level 1	1.5 years of relevant experience in Agriculture and allied sectors
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5	Previous NSQF level 1	1.5 years of relevant experience in Agriculture and allied sectors																			
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrf))	9	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																		

12.	Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	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 <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>130</td> <td>140</td> <td></td> <td></td> <td>270</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <i>(Refer Blended Learning Annexure for details)</i>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	130	140			270	Online					
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Online																								
14.	Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO-2015/6221																						
15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Aquaculture Worker (L2.5), Aquaculture Farm Assistant (L3)																						
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/N0101 (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 Contact No.: 0124-4670029 Website: www.asci-india.com																						
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/ NSQF 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	Assist in culture unit preparation activities	AGR/N4919 (v4.0)	Core	2.5	2	30	30			60	30	40		30	100	25
2	Assist in stocking, post stocking, harvesting and post-harvesting activities	AGR/N4920 (v4.0)	Core	2.5	3	40	50			90	30	40		30	100	30
3	Assist in maintaining the water system, waste disposal system, tools and equipment	AGR/N4964 (v3.0)	Core	2.5	2	20	40			60	30	40		30	100	25
4	Follow the hygiene and safety practices in culture operations	AGR/N4955 (v2.0)	Non-Core	4	1	10	20			30	30	40		30	100	15
5	Employability Skills (30 Hours)	DGT/VSQ/N 0101 (v1.0)	Non-Core	2.5	1	30				30	20	30			50	5
Duration (in Hours) / Total Marks					9	130	140			270	140	190		120	450	100

Assessment - Minimum Qualifying Percentage

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

Minimum Pass Percentage – Aggregate at qualification level: 50 % (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) <i>(as per NCVET guidelines)</i>	10th Class with 5 years of relevant industry experience in Inland Fishery Production and management* * Aquaculture Technician/ Aquaculture worker with 5 Years' experience of working with registered Corporates or Not for Profit Organizations / Registered Fish Farm after 10th Pass OR Diploma (Fisheries) with 3 years of relevant industry experience in Inland Fishery Production and management** **Diploma more than 15 months in fisheries OR B. Sc. (Zoology) with 3 years of relevant industry experience in Inland Fishery Production and management*** ***For the school Program minimum qualification of Trainer should be Graduate (Fisheries Science/ Industrial Fish & Fisheries/Zoology). With minimum 3 years of teaching experience (will be considered industry experience) OR Graduate (Agriculture) with 2 years of relevant industry experience in Inland Fishery Production and management OR Graduate (Fisheries Science)
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 (B. Sc. 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 B.Sc (Agriculture) 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 B.Sc (Fisheries Science)
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 / Aquaculture / Applied aquaculture or related streams and fields OR B.Sc (Fisheries and related streams) with 5 years of relevant industry experience in Fisheries / Aquaculture / Applied aquaculture or related streams and fields OR M.F.Sc with 2 years of relevant industry experience in Fisheries / Aquaculture / Applied aquaculture or related streams and fields OR Post-graduation (Fisheries / Applied Aquaculture and related streams) with 2 years of relevant industry experience in Fisheries / Aquaculture / Applied aquaculture or related streams and fields OR PhD (Fisheries / Applied Aquaculture and related streams) with 1 year of relevant industry experience in Fisheries / Aquaculture / Applied aquaculture or related streams and 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 / Aquaculture / Applied aquaculture or related streams and fields OR Post-graduation (Fisheries / Applied Aquaculture and related streams) with 10 years of relevant industry experience in Fisheries / Aquaculture / Applied aquaculture or related streams and 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): Government Initiative, part of PMKVY 4.0
4.	Number of Industry validation provided: 8
5.	Estimated nos. of persons to be trained and employed: 9000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Awaited

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>	<i>Annexure-1</i>
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Annexure-2</i>
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Annexure-5</i>
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	<i>Annexure-6</i>
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	<i>NA</i>
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	<i>NA</i>
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	<i>Annexure-7</i>
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	Aquaculture Worker (L2.5), Aquaculture Farm Assistant (L3)
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	<i>Annexure-8</i>
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	<i>Annexure-9</i>
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	• Assist in preparing the culture unit for stocking seeds • Assist in supplying water to the reservoir and pond/tank • Assist in stocking seeds • Assist in post-stocking pond culture operations • Assist in harvesting and post-harvest management of fish	An Aquaculture Worker is responsible for assisting in performing pre-stocking, stocking and post-stocking activities. The person also assists in performing harvesting, post-harvesting and regular repair and maintenance activities.	2.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Practice inclusion at work • Follow the safety protocols • Maintain the water body and its hygiene	The job holder should have the knowledge to carry out the preparation of the culture unit and performing pre-stocking, assist in treating the water with the appropriate methods such as chlorination, process of drawing water from the source to fill the reservoir, process for pumping treated water into the culture pond from the reservoir after treatment. The job holder should also be able to use appropriate fertilizers/manures for desired plankton growth, different methods of recycling and disposing waste, stocking the seeds at an appropriate density and species ratio.	2.5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Perform waste management • Optimise resource utilisation • Maintain clean and safe workplace • Maintain personal health and safety	The job holder should be able to feed seed stock with the recommended quantity of feed and supplementary feed as per the schedule prescribed by the supervisor/aquaculture technician, apply manure, fertilizer, lime and therapeutics as recommended by the supervisor, nets of appropriate mesh size to harvest the fish, repair and maintenance of the water system,	2.5

		waste disposal system, tools and equipment.	
Broad Learning Outcomes/Core Skill	• Assist in maintaining various tools and equipment • Assist in maintaining the water and waste disposal systems • Maintain the health of cultured organisms	The job holder should be able to assist in testing the aquaculture equipment for the correct functioning after repair and maintenance, assist in maintaining the record of repair and maintenance of all the equipment, carry out netting operation and periodic sampling of the soil, water and fish, adhere to the recommended guidelines for aeration and water replenishment in the culture pond. The job holder should also store the harvested fish at the recommended temperature and Relative Humidity (RH), pack the harvested fish in the appropriate container for transportation, optimise the usage of water, electricity and relevant materials in various tasks and processes.	2.5
Responsibility	• Assisting in various stocking activities • Harvesting and post-harvesting activities • Regular repair and maintenance activities	An Aquaculture Worker is responsible for assisting in performing pre-stocking, stocking and post-stocking activities. The person also assists in performing harvesting, post-harvesting and regular repair and maintenance activities.	2.5

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	Aerators	Nos	1
2	Mechanical filters	Nos	2
3	Weed Eradication Equipment	Nos	1
4	Air or Oxygen diffusers	Nos	1
5	Video Recording Equipment	Nos	1
6	Dipnet	Nos	2
7	Spout Pipe	Nos	1
8	Respiratory Masks/ Snorkel	Nos	30

9	Rubber gloves	Nos	30
10	Tubes	Nos	2
11	Scareherons	Nos	1
12	Gumboots	Nos	5
13	Profi-Feeders	Nos	1
14	Harvesting gear	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	KVK, Changlang	Dr. Devendra singh Chhonkar	Senior Scientist & Head	P.O. Jairampur, district Changlang, Arunachal Pradesh, PIN-792 121	8119976400	kvkchanglang@gmail.com	
2	ELIM CHEM PRIVATE LTD	Dr. Narasimha Murty Kinjarapu	GM-Technical & Product Development Manager	Old Bowenpally, Secunderabad, Hyderabad	9885867640	narasimhaau@gmail.com	
3	Aum Academia Private Limited,	Damodar Satapathy	Director	Aum Academia Private Limited, Plot No. K9-B/509, Kalinga Nagar, Patrapada, Bhubaneswar 751019; Odisha State	9861077340	sp1959satapathy@gmail.com	
4	SP Agrico India Pvt Ltd	Susanata Kumar Pradhan	Managing director	TOkaganda, Bhanjanagar, Odisha	7008663158	Sushant_pradhan58@rediffmail.com	
5	Kailash Fisheries and Aquatics	Akshya Kumar Sahu	Proprietor	M/s. Kailash Fisheries and Aquatics Astapura, Baisinga, Mayurbhanj, Odisha	9437147897	akshyakumarsahu1977@gmail.com	

6	KVK Tondapur, Hingoli	Dr.P.P.Shelke	Senior Scientist and Head.	Krishi Vigyan Kendra, Tondapur Ta. Kalamnuri Distt Hingoli	9765390976	kvkHINGOLI@gmail.com, ppsHELKE@gmail.com	
7	KVK kashipur- U.S Nagar	Dr. S.K.Sharma	Professor (Fisheries Science)	Krishi vigyan kendra ,kashipur distt: udham singh nagar-	9412926530	kvkkashipur@gmail.com/sk03sharma@gmail.com	
8	Shree Kailash Agrovet Pvt. Ltd.	Pratima Sahu	Managing Director	plot no-82, At-Astapura, Mahulpatna, Baisinga, Mayurbhanj, Odisha	8144261863	pratimaasahu@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	1680	200	60			
2026-27	3320	200	100			
2027-28	4000	200	100			

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	1052	396	392	0	331	110	110	0	0	0	0	0
3.0	2023-24	710	422	415	0	331	224	223	0	0	0	0	0
3.0	2022-23	258	220	213	0	127	115	111	0	0	0	0	0

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. PMKVY
2. SANKALP- ADARSH GRAM RPL
3. NFDB RPL
4. ASDM PLSD
5. HPKVN
6. NAPS

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:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
AGR/N4919: Assist in culture unit preparation activities	<i>Assist in preparing the culture unit</i>	12	16		12
	PC1. drain the culture unit and sun-dry it				
	PC2. remove the aquatic weeds and predatory/ weed fish using the recommended method				
	PC3. apply organic manure/ inorganic fertilizer in the pond/tank as per the instructions				
	PC4. apply the recommended treatment in the pond to control aquatic insects before stocking seeds				
	PC5. maintain the record of fertilizers and any treatments applied in the pond				
	<i>Assist in refilling the water body based on requirement</i>	12	16		12
	PC6. draw water from the source up to the required level in the reservoir				
	PC7. assist in treating the water with the appropriate methods such as chlorination				
	PC8. pump the treated water to the culture unit from the reservoir				
	PC9. monitor the inlet and outlet of water body				
	<i>Perform waste management</i>	6	8		6
	PC10. segregate waste into appropriate categories and deposit at identified locations				
	PC11. dispose the non-recyclable waste appropriately				
	Total Marks	30	40	-	30
AGR/N4920: Assist in stocking, post stocking, harvesting and post-harvesting activities	<i>Assist in conditioning and stocking of feed seeds</i>	6	10		6
	PC1. acclimate the seeds as per the instructions of the supervisor/ aquaculture technician				
	PC2. remove weak and dead seeds following the netting process				
	PC3. stock the seeds at an appropriate density and species ratio				
	<i>Assist in post-stocking pond culture operations including periodic sampling</i>	10	12		10
	PC 4. Carry out feed mixing as per the ration				
	PC4. feed seed stock with the recommended quantity of feed and supplementary feed as per the schedule prescribed by the supervisor/aquaculture technician				

	PC5. carry out split feeding as per the instructions of the aquaculture technician				
	PC6. carry out netting operation and periodic sampling of the soil, water and fish				
	PC7. apply manure, fertilizer, lime and therapeutics as recommended by the supervisor				
	PC8. adhere to the recommended guidelines for aeration and water replenishment in the culture pond				
	PC9. carry out regular repair and maintenance of the implements, nets and gears, pond dyke, etc.				
	<i>Assist in harvesting and post-harvest management of fish</i>	10	14		10
	PC10. use nets of appropriate mesh size to harvest the fish				
	PC11. harvest fish of the size as advised by the aquaculture technician, in case of partial harvesting				
	PC12. carry out minimum handling of the fish between harvesting and transportation				
	PC13. wash and clean the fish storage boxes and containers				
	PC14. crush and keep sufficient quantity of ice for hygienic storage of fish				
	PC15. store the harvested fish in appropriate container at the recommended temperature and Relative Humidity (RH)				
	PC16. pack the harvested fish in the appropriate container for transportation				
	<i>Optimize resource utilization</i>	4	4		4
	PC17. optimize the usage of water, electricity and relevant materials in various tasks and processes				
	PC18. plug any water leakages to prevent its wastage				
	Total Marks	30	40		30
AGR/N4964: Assist in maintaining the water system, waste disposal system, tools and equipment	<i>Assist in maintaining the water level and quality and waste disposal systems</i>	10	20		15
	PC1. Control the inlet and outlet system of ponds / tanks				
	PC1. assist in arranging for an alternative water supply before the repair and maintenance of the water system				
	PC2. remove sedimentation and any obstructions from the water pipes				
	PC3. Provide bird netting for ensuring water quality				
	PC3. carry out the cleaning of water pipes with the approved cleaning agents such as bleach				

	PC4. repair or replace the faulty or damaged water pipes and fittings as per instructions				
	PC5. assist in reconnecting the water supply system appropriately after repair and maintenance activities				
	PC6. carry out repair and maintenance of the waste disposal system as per the supervisor's instructions				
	<i>Assist in maintaining various tools and equipment</i>	20	20		15
	PC7. prepare the appropriate repair and maintenance tools, equipment and materials for use as per the supervisor's instructions				
	PC8. assist in carrying out repair and maintenance of water pump, aerator, blower, air compressor and other aquaculture equipment according to the manufacturer's instructions				
	PC9. assist in replacing any faulty equipment with the new one				
	PC10. co-ordinate with an expert for complex repair and maintenance needs				
	PC11. assist in testing the aquaculture equipment for the correct functioning after repair and maintenance				
	PC12. carry out maintenance of the repair and maintenance tools and equipment as per the supervisor's instructions and store them safely at the designated storage				
	PC13. assist in maintaining the record of repair and maintenance of all the equipment				
	Total Marks	30	40	-	30
AGR/N4955: Assist in maintaining health, hygiene and safety in culture operations	<i>Assist in maintaining the water body and its hygiene</i>	10	15	-	10
	PC1. carry out regular maintenance of dykes or fences on the culture pond as per the supervisor's instructions				
	PC2. assist in protecting the aquaculture farm from poachers, natural threats, preying birds and organisms				
	PC3. assist in identifying and removing preying organisms from the culture pond or				
	PC4. replace the water in the culture pond or tank at regular intervals as per the supervisor's instructions				
	PC5. apply an appropriate treatment in the culture pond or tank as per instructions, to prevent disease outbreak or infestation by harmful organisms				
	PC6. remove sludge, algae and uneaten feed from the culture pond or tank as instructed by the supervisor				

DGT/VSQ/N0101: Employability Skills (30 Hours)	<i>Assist in maintaining the health of cultured organisms</i>	10	15	-	10
	PC7. assist in sampling the cultured organisms regularly to identify signs of abnormal behavior, stress, disease, phenotypic disorders, spots or lesions, parasites,				
	PC8. assist the supervisor in identifying, quarantining and treating the diseased				
	PC9. assist in monitoring the quarantined organisms for signs of				
	PC10. remove and dispose the dead and moribund organisms as per instructions				
	PC11. follow the supervisor's instructions to protect the cultured organisms from air/ water/ fomite-borne contamination and diseases during and after harvesting				
	<i>Maintain personal health and safety</i>	10	10	-	10
	PC12. follow the recommended practices to maintain personal hygiene such as washing or sanitizing hands with soap or sanitizer				
	PC13. check the Personal Protective Equipment (PPE) for wear and tear or damage and coordinate with the supervisor to get them replaced				
	PC14. use the relevant Personal Protective Equipment (PPE) during any hazardous aquaculture operations, such as the application of harmful chemicals				
	PC15. store hazardous chemicals or materials safely in the designated storage				
	PC16. administer first-aid to the injured personnel and co-ordinate with the supervisor or emergency services for further medical attention				
	PC17. identify and report potential personal safety hazards to the supervisor in a timely manner				
	Total Marks	30	40	-	30
	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements				
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices				
	<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
	PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking,				

	time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.				
	<i>Basic English Skills</i>	2	3	-	-
	PC4. speak with others using some basic English phrases or sentences				
	<i>Communication Skills</i>	1	1	-	-
	PC5. follow good manners while communicating with others				
	PC6. work with others in a team				
	<i>Financial and Legal Literacy</i>	3	4	-	-
	PC7. use various financial products and services safely and securely				
	PC8. calculate income, expenses, savings etc.				
	PC9. approach the concerned authorities for any exploitation as per legal rights and laws				
	<i>Essential Digital Skills</i>	4	6	-	-
	PC10. operate digital devices and use its features and applications securely and safely				
	PC11. use internet and social media platforms securely and safely				
	<i>Entrepreneurship</i>	3	5	-	-
	PC12. identify and assess opportunities for potential business				
	PC13. identify sources for arranging money and associated financial and legal challenges				
	<i>Customer Service</i>	2	2	-	-
	PC14. identify different types of customers				
	PC15. identify customer needs and address them appropriately				
	PC16. follow appropriate hygiene and grooming standards				
	<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
	PC17. create a basic biodata				
	PC18. search for suitable jobs and apply				
	PC19. identify and register apprenticeship opportunities as per requirement				
	Total Marks	20	30	-	
	Grand Total	140	190		120

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