



## **QUALIFICATION FILE**

### **Freshwater 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.	<b>Qualification Name</b>	<b>Freshwater Aquaculture Farmer</b>																
2.	<b>Sector/s</b>	<b>Agriculture</b>																
3.	<b>Type of Qualification:</b> <input type="checkbox"/> New <input checked="" type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	<b>NQR Code &amp; version of existing qualification:</b> QG-04-AG-00275-2023-V1.1-ASCI & Version 1.1	<b>Qualification Name of existing/previous version:</b> Freshwater Aquaculture Farmer															
4.	<b>a. OEM Name</b> <b>b. Qualification Name</b> <i>(Wherever applicable)</i>	<b>NA</b>																
5.	<b>National Qualification Register (NQR) Code &amp;Version</b> <i>(Will be issued after NSQC approval)</i>	QG-04-AG-03559-2025-V2-ASCI & Version 2.0	<b>6. NCrf/NSQF Level:</b> 4															
7.	<b>Award (Certificate/Diploma/Advance Diploma/ Any Other)</b> <i>(Wherever applicable specify multiple entry/exits also &amp; provide details in annexure)</i>	Certificate																
8.	<b>Brief Description of the Qualification</b>	A Freshwater Aquaculture Farmer is responsible for the purchase of quality seeds, managing pre-stocking and post-stocking practices, including rearing, sampling and harvesting for the production of healthy commercially important freshwater fish and other aquatic organisms and marketing them.																
9.	<b>Eligibility Criteria for Entry for Student/Trainee/Learner/Employee</b>	<b>a. Entry Qualification &amp; Relevant Experience:</b> <table border="1" style="margin-left: 20px;"> <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<sup>th</sup> or equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>10<sup>th</sup> 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</td> <td>3 years of relevant experience in agriculture and allied sectors</td> </tr> </tbody> </table> <b>b. Min Age:</b> NA		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12 <sup>th</sup> or equivalent		2	10 <sup>th</sup> 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	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 <sup>th</sup> or equivalent																	
2	10 <sup>th</sup> 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	3 years of relevant experience in agriculture and allied sectors																
10.	<b>Credits Assigned to this Qualification, Subject to Assessment</b> <i>(as per National Credit Framework (NCrf))</i>	13	<b>11. Common Cost Norm Category (I/II/III)</b> <i>(wherever applicable):</i> I															

12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																					
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> 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>150</td> <td>180</td> <td>60</td> <td></td> <td>390</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>(Refer Blended Learning Annexure for details)</p>				Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	150	180	60		390	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																		
Classroom (offline)	150	180	60		390																		
Online																							
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/2132.0900																					
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Freshwater Aquaculture Farmer (L4), Aquaculture Technical 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:																					
18.	Is the Job Role Amenable to Persons with Disability	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No DGT/VSQ/N0102 (v1.0)																					
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																					
22.	Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	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	Perform pre-stocking and stocking activities	AGR/N4921 (V3.0)	Core	4	2	25	35			60	30	40		30	100	25
2	Perform post stocking culture activities	AGR/N4922 (V3.0)	Core	4	3	20	70			90	30	40		30	100	30
3	Harvest, process and market the aquaculture organisms	AGR/N4923 (V4.0)	Core	4	2	20	40			60	30	40		30	100	25
4	Engage in collective farming/activity	AGR/N9922 (V2.0)	Non-Core	4	1	15	15			30	30	40		30	100	5
5	Follow the hygiene and safety practices in culture operations	AGR/N4955 (V2.0)	Non-Core	4	1	10	20			30	30	40		30	100	10
6	Employability Skills	DGT/VSQ/N0102 (V1.0)	Non-Core	4	2	60				60	20	30			50	5
7	OJT				2			60		60						
Duration (in Hours) / Total Marks					13	150	180	60		390	170	230		150	550	100

## 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.	<b>Trainer's Qualification and experience in the relevant sector (in years)</b> (as per NCVET guidelines)	<p>10<sup>th</sup> class with 5 years of relevant industry experience in Inland Fishery Production and management*</p> <p>* Fresh water Aquaculture Farmer with 5 Years of experience after 10th pass. Experience certificate issued by registered fisheries society / Government Department of Fisheries/ on official letter Head</p> <p>OR</p> <p>Diploma (Regular Diploma more than 15 months in fisheries) with 3 years of relevant industry experience in Inland Fishery Production and management</p> <p>OR</p> <p>Graduate (Agriculture / Fisheries / Zoology) with 2 years of relevant industry experience in Inland Fishery Production and management**</p> <p>** For the school Program minimum qualification of the Trainer should be Graduate (Fisheries Science/Industrial Fish &amp; Fisheries/Zoology). Their Teaching experience will be considered industry experience</p> <p>OR</p> <p>Graduate (Fisheries Science/ Industrial Fish &amp; Fisheries)</p>
2.	<b>Master Trainer's Qualification and experience in the relevant sector (in years)</b> (as per NCVET guidelines)	<p>5 years of training experience in Inland Fishery Production and management after Graduation (Agriculture / Fisheries / Zoology) with 2 years of relevant industry experience in Inland Fishery Production and management</p> <p>OR</p> <p>5 years of training experience in Inland Fishery Production and management after Graduation (Fisheries Science/ Industrial Fish &amp; Fisheries)</p>
3.	<b>Tools and Equipment Required for Training</b>	<p><input checked="" type="checkbox"/>Yes <input type="checkbox"/>No (If "Yes", details to be provided in Annexure)</p>

4.	<b>In Case of Revised Qualification, Details of Any Upskilling Required for Trainer</b>	NA
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## Section 4: Assessment Related

1.	<b>Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	Graduation (B.F.Sc) with 5 years of relevant industry experience in In Fisheries Science/ Aquaculture/ Applied aquaculture/ Freshwater Biology or related experience and fields OR Graduation (B.Sc in Fisheries and related streams) with 5 years of relevant industry experience in In Fisheries Science/ Aquaculture/ Applied aquaculture/ Freshwater Biology or related experience and fields OR Post-Graduation (M.F.Sc) with 2 years of relevant industry experience in In Fisheries Science/ Aquaculture/ Applied aquaculture/ Freshwater Biology or related experience and fields OR Post-Graduation (M.Sc in Fisheries/Applied Aquaculture and related streams) with 2 years of relevant industry experience in In Fisheries Science/ Aquaculture/ Applied aquaculture/ Freshwater Biology or related experience and fields OR PhD (Fisheries Science/Aquaculture and related streams) with 1 year of relevant industry experience in In Fisheries Science/ Aquaculture/ Applied aquaculture/ Freshwater Biology or related experience and fields
2.	<b>Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	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.	<b>Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	Post-Graduation (M.F.Sc) with 10 years of relevant industry experience in In Fisheries Science/ Aquaculture/ Applied aquaculture/ Freshwater Biology or related experience and fields OR Post-Graduation (M.Sc in Fisheries/Applied Aquaculture and related streams) with 10 years of relevant industry experience in In Fisheries Science/ Aquaculture/ Applied aquaculture/ Freshwater Biology or related experience and fields
4.	<b>Assessment Mode (Specify the assessment mode)</b>	<b>Offline</b>
5.	<b>Tools and Equipment Required for Assessment</b>	<input checked="" type="checkbox"/> Same as for training <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)

## Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	<b>Latest Skill Gap Study (not older than 2 years) (Yes/No):</b> Yes
2.	<b>Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):</b> No
3.	<b>Government /Industry initiatives/ requirement (Yes/No):</b> This job role is under PMKVY 4.0
4.	<b>Number of Industry validation provided:</b> 8
5.	<b>Estimated nos. of persons to be trained and employed:</b> 10,000
6.	<b>Evidence of Concurrence/Consultation with Line Ministry/State Departments:</b> obtained from Ministry of Fisheries Animal Husbandry and Dairying, Dep of Fisheries

## Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	<b>Annexure:</b> NCrF/NSQF level justification based on NCrF level/NSQF descriptors <i>(Mandatory)</i>	<i>Annexure-1</i>
2.	<b>Annexure:</b> List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Annexure-2</i>
3.	<b>Annexure:</b> Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Annexure-5</i>
4.	<b>Annexure:</b> Assessment Strategy <i>(Mandatory)</i>	<i>Annexure-6</i>
5.	<b>Annexure:</b> Blended Learning <i>(Mandatory, in case selected Mode of delivery is "Blended Learning")</i>	<i>NA</i>
6.	<b>Annexure:</b> Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	<i>NA</i>
7.	<b>Annexure:</b> Acronym and Glossary <i>(Optional)</i>	<i>25</i>
8.	<b>Supporting Document:</b> Model Curriculum <i>(Mandatory – Public view)</i>	<i>Annexure-7</i>
9.	<b>Supporting Document:</b> Career Progression <i>(Mandatory - Public view)</i>	Aquaculture Technical Supervisor (L5)
10.	<b>Supporting Document:</b> Occupational Map <i>(Mandatory)</i>	<i>Annexure-8</i>
11.	<b>Supporting Document:</b> Assessment SOP <i>(Mandatory)</i>	<i>Annexure-9</i>
12.	<b>Any other document you wish to submit:</b>	

## 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
<b>Professional Theoretical Knowledge/Process</b>	<ul style="list-style-type: none"> <li>• Prepare the pond</li> <li>• Set up the tank</li> <li>• Procure the ingredients for feed and culturing live feed</li> <li>• Culture live feed</li> <li>• Carry out fish breeding</li> <li>• Stock and feed the fish</li> </ul>	An Ornamental Farmer is responsible for breeding, seed production and rearing of seeds of different types of ornamental fish of domestic and export value. The individual may also set up and maintain marine and freshwater aquariums.	4
<b>Professional and Technical Skills/ Expertise/ Professional Knowledge</b>	<ul style="list-style-type: none"> <li>• Manage the water quality</li> <li>• Follow the safety protocols</li> <li>• the process of preparing a pond for fish culture</li> <li>• the process of fabrication and installation of a tank in a pond</li> <li>• Carry out health and disease management</li> </ul>	The job holder is expected to have knowledge of methods of setting up tanks and preparation of ponds, how to fill the tanks with required water after proper filtration, methods of fixing, air pumps, aerators, filters and aquatic ornamental plants, methods of pond preparation and culturing live feed, selection of appropriate species for breeding, overall functioning of the facility, type of ornamental fishes and feed requirements, selection of ingredients for feed, preparation of feed, process of live feed culture, feeding techniques, breeding technology for ornamental fish, methods of setting up substrates for breeding of fish, use of aerators to provide required level of aeration, methods of maintaining water quality, prevention of disease occurrence, methods of maintaining safety checks etc.	4
<b>Employment Readiness &amp; Entrepreneurship Skills &amp; Mind-set/Professional Skill</b>	<ul style="list-style-type: none"> <li>• Optimise resource utilisation</li> <li>• Practice inclusion at work</li> <li>• Maintain the water body and its hygiene</li> </ul>	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 fill	4

	<ul style="list-style-type: none"> <li>• Maintain personal health and safety</li> <li>• Maintain the aquarium and water quality</li> </ul>	the tanks/ponds with aged freshwater, or sea water depending on the species to be reared, provide tanks/ponds with appropriate lifesaving equipments (air pumps, aerators, filters) and aquatic ornamental plants, install re circulatory systems, monitor the water quality on a regular basis, identify potential diseases and their prophylaxis, undertake quarantine protocols, provide required aeration and maintain optimum water quality parameters, observe and monitor the breeding process, rear the juvenile fish to the marketable size, undertake necessary biosecurity protocols for disease prevention, use appropriate packing material for transport based on the number and size of the fish ensure adherence to safety, hygiene and sanitation practices.	
<b>Broad Learning Outcomes/Core Skill</b>	<ul style="list-style-type: none"> <li>• Assess the feed requirement of fish</li> <li>• Procure and stock the ornamental fish seed</li> <li>• the process of installing equipment in tanks/ponds, such as air pumps, aerators, filters, etc.</li> <li>• Carry out feed and health management</li> <li>• use of e-payment methods and computer to process payments and maintain records</li> <li>• respectively</li> <li>• Harvest, condition and pack the fish</li> <li>• Market the harvested fish</li> </ul>	<p>The job holder is expected to communicate with required clarity, read internal information documents sent by internal teams, read equipment manuals and process documents to understand the equipments operation and process requirement, record and maintain information related to the process of carrying out ornamental fish culture, effectively communicate with co-workers.</p> <p>The Job holder is required to calculate ration requirement for different stages and species, identify feeding cycles and routine, carry out nutritional prophylactics before harvesting, use appropriate tools and equipment for harvesting, determine the correct dose of medicines / disinfectants to cure diseases, separate the diseased fish from the healthy fish and put them in a hospital tank.</p>	4
<b>Responsibility</b>	<ul style="list-style-type: none"> <li>• Breeding, seed production and rearing of seeds</li> </ul>	An Ornamental Farmer is responsible for breeding, seed production and rearing of seeds of different types of ornamental fish of domestic	4

- |  |   |  |  |
|--|---|--|--|
|  | <ul style="list-style-type: none"> <li>Maintaining marine and freshwater aquariums</li> </ul> | and export value. The individual may also set up and maintain marine and freshwater aquariums. |  |
|--|---|--|--|

### 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	Weed eradication equipment	Nos	2
2	Profi feeders	Nos	1
3	Secchi disc	Nos	1
4	Refractometer	Nos	1
5	Hand gloves	Nos	30
6	Scissors	Nos	1
7	Weed cutter	Nos	3
8	Goggles	Nos	3
9	Water testing kit	Nos	1
10	Oxygen tablets	box	1
11	Vitamin B12 tablets	box	1
12	Erythromycin capsules	box	1
13	Aeration pipes	Nos	1
14	Ph meter	Nos	1
15	Polypropelene tanks	Nos	2
16	Oxygen cylinders	Nos	1
17	Video Recording Equipment	Nos	1
18	Face Masks	Nos	30
19	Siphoning pipes	Nos	2
20	Air or Oxygen diffusers	Nos	1
21	Tubers	Nos	1
22	Water pump	Nos	1
23	Aerators	Nos	3
24	Pelletiser	Nos	1

25	Gumboots	Nos	5
26	Dip net or any other harvesting gear	Nos	1
27	Head gear	Nos	3
28	Mechanical filters	Nos	2

## 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	2500	100	60	20		
2026-27	2500	100	60	20		
2027-28	5000	100	60	20		

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	3085	2601	2439	0	1264	922	891	0	0	0	0	0
3.0	2023-24	2629	2152	1910	0	1400	1129	988	0	0	0	0	0
3.0	2022-23	0	0	0	0	0	0	0	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. NFDB RPL
3. FEE BASED RPL
4. FEE BASED
5. MPAE

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/N4921: Perform pre-stocking and stocking activities	<i>Carry out soil conditioning</i>	6	8	-	6
	PC1. Arrange for soil testing				
	PC2. check the pH level of the soil using a pH meter				
	PC3. perform soil conditioning by applying lime, gypsum, etc.				
	<i>Collect/ procure and stock seeds for culture activities</i>	8	8		6
	PC4. select diversified carp species and other cultivable fish species for the freshwater aquaculture system				
	PC5. collect/ procure quality seed for rearing and transport them with minimum stress				
	<i>Remove predatory fishes in the culture system if any</i>	2	5		2
PC6. Use drag net to ascertain the availability of predatory fishes.					

	PC7. Remove all predatory fishes before stocking seeds.				
	<i>Maintain the water quality parameters in the water body</i>	6	10	-	8
	PC8 equip the water body with proper inlets and outlets and slopes				
	PC9. maintain optimum water temperature, dissolved oxygen, salinity and pH levels in the pond/ tank for the cultured fish including shell fishes.				
	PC10. replace the pond water to remove chemical waste and maintain the quality of water				
	PC11. maintain the recommended water depth and stocking density for the cultured species				
	<i>Acclimatize the fish seeds before stocking</i>	3	5		2
	PC 12. segregate the seeds size wise and species wise				
	PC 13. Condition the seeds before releasing in the water body				
	<i>Optimise resource utilisation</i>	4	2		3
	PC14. optimise the usage of water, electricity and relevant materials in various tasks and processes				
	PC15. plug any water leakages to prevent its wastage				
	<i>Perform waste treatment and management</i>	4	2		3
	PC16. segregate waste into appropriate categories and deposit the recyclable waste at the identified location				
	PC17. dispose the non-recyclable waste appropriately				
	PC18. treat the waste water for recycling by using lime or permitted disinfectant				
	PC19. check the water quality parameters after treatment to ensure suitability for re-use				
	PC20. use the treated water in appropriate aquaculture operations				
	<b>Total Marks</b>	<b>30</b>	<b>40</b>	<b>-</b>	<b>30</b>
	<i>Maintain the physicochemical and biological parameters in the pond</i>	8	12		10
	PC1. perform periodic soil, water, and fish sampling and netting operation				
	PC2. apply appropriate dosages of lime, manure and fertilizers to maintain the soil and water quality				
	PC3. maintain optimum levels of dissolved oxygen by using aerators				
	PC4. apply the recommended herbicides and other chemicals to control the growth of aquatic weeds, algal bloom in the pond				
	PC5. remove the aquatic weeds and algal bloom from the pond				
<b>AGR/N4922: Perform post-stocking culture activities</b>	<i>Perform feed management</i>	12	16		12

	PC6. sample the cultured organisms regularly to calculate their biomass and determine their growth				
	PC7. feed the freshwater organisms with the recommended quantity and quality of feed as per the feeding schedule				
	PC8. monitor the feed consumption and modify the feed ration according to the environmental conditions and season				
	<i>Perform health management</i>	10	12	-	8
	PC9. follow the recommended practices to prevent outbreak of disease and harmful organisms in the pond				
	PC10. diagnose any problem/ disease with the help of an expert or a fish disease diagnostic laboratory				
	PC11. quarantine the unhealthy fish in the quarantine tank				
	PC12. treat the unhealthy fish with the recommended dose of prescribed treatment				
	PC13. monitor the fish in the quarantine tank for signs of improvement and restock it in the culture pond on complete recovery				
	<b>Total Marks</b>	<b>30</b>	<b>40</b>		<b>30</b>
<b>AGR/N4923: Harvest, process and market the aquaculture organisms</b>	<i>Harvest the aquaculture organisms</i>	12	14	-	10
	PC1. check the aquaculture organisms to ensure they have attained the 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. use 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 the basis of 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				
	PC11. 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. negotiate the price with the buyer(s)				
	PC14. pack the aquaculture 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 PaymentInterface (UPI), Unstructured Supplementary Service Data (USSD) payment, etc				
	PC19. maintain the record of sales and payments				
	PC20. calculate the benefit-cost (B:C) ratio				
	Total Marks	30	40	-	30
<b>AGR/N9922: Engage in collective farming/activity</b>	<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. organize 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 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				
<b>Grand Total</b>	<b>30</b>	<b>40</b>		<b>32</b>
<i>Maintain the water body and its hygiene</i>				

AGR/N4955: Follow the hygiene and safety practices in culture operations	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 dykes 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				
	Maintain the health of cultured organisms	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				
	Maintain personal health and safety	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 handssanitised				
PC14. store hazardous chemicals, tools and equipment in the safe storage area to avoid personal harm or injury					
PC15. administer first-aid to the injured personnel and co-ordinate with the emergency services for further medicalattention					
<b>Total Marks</b>	<b>30</b>	<b>40</b>		<b>30</b>	
Introduction to Employability Skills	1	1	-	-	

DGT/VSQ/N0102: Employability Skills (60 Hours)	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 &amp; 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 &amp; 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	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess 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 &amp; Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	5	-	-	-
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	-	-	-	-
Total Marks	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-Stamps 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 7: 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
<b>National Occupational Standards (NOS)</b>	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.
<b>Qualification</b>	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
<b>Qualification File</b>	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.
<b>Sector</b>	A grouping of professional activities on the basis of their main economic function, product, service or technology.
<b>Long Term Training</b>	Long-term skilling means any vocational training program undertaken for a year and above. <a href="https://ncvet.gov.in/sites/default/files/NCVET.pdf">https://ncvet.gov.in/sites/default/files/NCVET.pdf</a>