





# **QUALIFICATION FILE**

# **Fish Seed Grower**

$oxtimes$ Short Term Training (STT) $\Box$ Long Term Training (LTT) $\Box$ Apprenticeship	
$oxtimes$ Upskilling $oxtimes$ Dual/Flexi Qualification $oxtimes$ For ToT $\oxtimes$ For ToA	
⊠General □ Multi-skill (MS) □ Cross Sectoral (CS) □ Future Skills □ OEM  NCrF/NSQF Level: 4	
Submitted By:	
Agriculture Skill Council of India	

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### **Table of Contents**

Section 1: Basic Details	3
Section 2: Module Summary	5
NOS/s of Qualifications	5
Mandatory NOS/s:	5
Assessment - Minimum Qualifying Percentage	5
Section 3: Training Related	
Section 4: Assessment Related	6
Section 5: Evidence of the need for the Qualification	6
Section 6: Annexure & Supporting Documents Check List	6
Annexure: Evidence of Level	7
Annexure: Trainer's Qualification	<u>c</u>
Annexure: Assessor's Qualification	
Annexure: Tools and Equipment (Lab Set-Up)	12
Annexure: Industry Validations Summary	
Annexure: Training & Employment Details	
Annexure: Blended Learning	
Annexure: Detailed Assessment Criteria	
Annexure: Assessment Strategy	
Annexure: Acronym and Glossary	

# Section 1: Basic Details

1.	Qualification Name	Fish Seed	Grower				
2.	Sector/s	Agricultu	ire				
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has  Electives/Options ☐ OEM	NQR Code & version of existing qualification: 2022/AGR/ASCI/06540 & Version 3.0		Qualification Name of existing/previous version: Fish Seed Grower			
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA					
5.	National Qualification Register (NQR) Code & Version (Will be issued after NSQC approval)	QG-04-	AG-03236-2024-V2-ASCI	6. NCrF/NSQF Level: 4			
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate					
8.	Brief Description of the Qualification			eeds of varieties of fish species. The person ove cluding the harvesting and post-harvest manage			
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entr	y Qualification & Relevant Experience:				
		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)			
		1	12th or equivalent				
		2	10th or equivalent	3 years of relevant experience in Fisheries and related sector			
		3	Previous NSQF Level 3.5	1.5 years of relevant experience in Fisheries and related sector			
		4	Previous NSQF Level 3.0	3 years of relevant experience in Fisheries and related sector			
		b. Age:	18				
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	15		11. Common Cost Norm Category (I/II/III) (what applicable): I	erever		

12.	Any Licensing requirements for Undertaking Training on This	NA							
	Qualification (wherever applicable)								
13.	Training Duration by Modes of Training Delivery (Specify Total	⊠Offline □Online □Blended							
	<b>Duration</b> as per selected training delivery modes and as per requirement of	Training Delivery	Theory	Practical	OJT	OJT	Total		
	the qualification)	Modes	(Hours)	(Hours)	Mandatory (Hours)	Recommended (Hours)	(Hours)		
		Classroom (offline)	210	210	30		450		
		Online							
		(Refer Blended Learning Ann	exure for details	<u>;)                                    </u>					
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/6221							
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Fish Seed Grower (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	☐ 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: sमा							
19.	How Participation of Women will be Encouraged	Batches specific to wome	en will be form	ed					
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify	⊠ Yes □ No							
	the NOS/Module which covers it)	DGT/VSQ/N0102 (v1.0)							
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ⊠ Yes □ No	Colleges ⊠ Y	es 🗆 No					
22.	Name and Contact Details of Submitting / Awarding Body SPOC	Name: Mr Srikanth Pamp	ana						
	(In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Email: standards@asci-india.com Contact No.: 0124-4670029							
		Website: www.asci-india	.com						
23.	Final Approval Date by NSQC: 22/10/2024	24. Validity Duration: 3 years post NSQC 25. Next Review Date: 22/10/2027							
		Approval							

# 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/Modul	Core/	NCrF/NS	Credits		Trainin	g Duratio	on (Hours)				Assess	ment M	arks	
		e Code & Version (if applicable)	Non- Core	QF Level	as per NCrF	Th.	Pr.	OJT- Man.	OJT- Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Ensure the soil and water quality in the culture pond	AGR/N4966 (v2.0)	Core	4	4	50	70			120	30	40		30	100	30
2	Feeding and monitoring the Fish seed	AGR/N4968 (v1.0)	Core	4	1	10	20			30	30	40		30	100	20
3	Supervise the culture, harvest and post-harvest activities	AGR/N4931 (v3.0)	Core	4	5	60	90			150	30	40		30	100	30
4	Ensure health, hygiene and safety during culture operations	AGR/N4918 (v3.0)	Core	4	1	15	15			30	30	40		30	100	10
5	Manage and lead a team effectively	AGR/N9923 (v2.0)	Non- Core	6	1	15	15			30	30	40		30	100	5
6	Employability Skills (60 Hours)	DGT/VSQ/N 0102 (v1.0)	Non- Core	4	2	60				60	20	30			50	5
7	OJT			4	1			30		30						
Duration	n (in Hours) / Total Marks				15	210	210	30		450	170	230		150	550	100

### Assessment - Minimum Qualifying Percentage

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

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

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

# Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Graduate (B.F. Sc.) with 4 years of relevant industry or training experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields  OR  B.Sc (Graduate (Fisheries and related streams) ) with 5 years of relevant industry or training experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields  OR  Post Graduate (M.F. Sc/ Fisheries/ Applied Aquaculture and related streams ) with 2 years of relevant industry or training experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	5 years of training experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields after Graduation (B.F. Sc) and 4 years of relevant industry experience OR 5 years of training experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields after B.Sc. (Graduate (Fisheries and related streams) ) and 5 years of relevant industry experience OR 5 years of training experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields after Post Graduation in (M.F. Sc/ Fisheries/ Applied Aquaculture and related streams) with 2 years of relevant industry experience
3.	Tools and Equipment Required for Training	⊠Yes □No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA NA

# Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant	B.F. Sc with 4 years of relevant experience in Fisheries Science / Aquaculture / Applied aquaculture or
	sector (in years) (as per NCVET guidelines)	related EXPERIENCE and fields
		OR
		Graduation (Fisheries and related streams) with 5 years of relevant experience in Fisheries Science /
		Aquaculture / Applied aquaculture or related EXPERIENCE and fields; Remarks: Practical skills and
		knowledge required in seed production of aquatic organisms

2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	OR M.F. Sc with 2 years of relevant experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields OR Post-Graduation (Fisheries/ Applied Aquaculture and related streams) with 2 years of relevant experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fieldsPhD (Fisheries/ Applied Aquaculture and related streams) with 1 year of relevant experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields 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) (as per NCVET guidelines)	M.F. Sc with 10 years of relevant experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields  OR  Post-Graduation (Fisheries/ Applied Aquaculture and related streams) with 10 years of relevant experience in Fisheries Science / Aquaculture / Applied aquaculture or related EXPERIENCE and fields
4.	Assessment Mode (Specify the assessment mode)	Offline
5.	Tools and Equipment Required for Assessment	☑ Same as for training ☑ Yes ☐ No (details to be provided in Annexure-if it is different for Assessment)

**QUALIFICATION FILE - STT** 

# 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): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Government Initiative, part of PMKVY 4.0
4.	Number of Industry validation provided: 9
5.	Estimated nos. of persons to be trained and employed: 2000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes

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

### Annexure 1: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	Carry out soil conditioning	A Fish Seed Grower is responsible for raising the seeds of varieties of fish species. The person oversees the	4

	Purchase and stock the seeds	preparation of pond and the culture activities including the harvesting and post-harvest management of seeds.	
Professional and Technical Skills/ Expertise/ Professional Knowledge	<ul> <li>Promote inclusion at work</li> <li>Maintain the health of cultured organisms</li> <li>Maintain a fair and professional work environment</li> </ul>	The job holder is expected to have knowledge of facts, principles, processes and general concepts, seed rearing protocol, water quality management in seed rearing ponds, feed and feed management in seed rearing pond, disease diagnosis and management, seed packing and transport, staff roster management, leave and attendance management, basic mathematics, prevention of infections, personal hygiene requirement, method of maintaining safety checklists, routine physio-chemical testing of water. The job holder is required to have knowledge of facts, principles, processes and general concepts, in a field of work or study, for example, ensure pond preparation as per requirement of the respective stages of seed to be grown, i.e., spawn to fry, fry-fingerling (post larvae to juvenile in freshwater prawn) or fingerling to stunted juveniles, decide on types and dosages of basal manuring, liming and soil treatment in case of new pond, choose method of application of the inputs, determine appropriate methods of eradication of aquatic weed and advise the workers on the safety measures while applying the chemicals, apply appropriate method of eradicating predatory and weed fishes	4
Employment Readiness & Entrepreneurship Skills & Mind- set/Professional Skill	<ul> <li>Optimise resource utilisation</li> <li>Perform waste management</li> <li>Ensure the upkeep of water body, tools and equipment</li> <li>Maintain personal hygiene and safety</li> </ul>	The job holder is expected to have skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information. The job holder has to use appropriate methods for seed harvesting, carry out periodic sampling to check occurrence of pathogens, abnormalities and infections in the seed, use	4

		appropriate feed, in right quantity and with appropriate feeding schedule, assess the need for manpower requirement for a single culture period, coordinate work hours including scheduling, approving time off requests, tracking absences, timekeeping etc.  The job holder should ensure the basic safety checks to be undertaken before operating any tools and equipment and practising the good hygienic practices as per recommendation	
Broad Learning Outcomes/Core Skill	<ul> <li>Manage the water quality</li> <li>Ensure pond preparation for the selected seed species</li> <li>Supervise maintenance of the stocked seeds in the pond</li> <li>Supervise harvesting and packing of seeds</li> </ul>	The job holder is expected to possess desired mathematical skills, understanding of social, political and some skill of collecting and organizing information, communication. For example, the job holder is expected to determine manpower demand based on parameters such as transportation, stocking, survival and growth monitoring, prepare backup plan for manpower allocation in case of unforeseen circumstances, determine different types of liming material and its method of application in pond to be used at various stage of culture operation, find out the source of quality seed of the desired organisms, ensure availability of suitable environment for the rearing of specific species or group of species	4
Responsibility	<ul> <li>Resolve problems promptly and communicate effectively</li> <li>Raising of variety of fish species</li> <li>Ensure that subordinates are carrying out their works responsibly</li> <li>leadership qualities and management skills</li> <li>Harvesting and Post-Harvesting</li> </ul>	A Fish Seed Grower is responsible for raising the seeds of varieties of fish species. The person oversees the preparation of pond and the culture activities including the harvesting and post-harvest management of seeds.	4

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

List of Tools and Equipment **Batch Size:** 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Fry net/ Breeding Net	Nos	1
2	Chemical fertilizer	Kgs	1
3	Rice bran	kgs	1
4	Breeding hapa	Nos	1
5	Syringes	Nos	1
6	Oxygen cylinders	Nos	1
7	Dissolved Oxygen Analyser	Nos	1
8	Needles	Nos	1
9	Cotton	Nos(Rolls)	1
10	Bamboos for support	Nos	1
11	Weighing balance	Nos	1
12	groundnut oil cake	kgs	1
13	Hand nets/ Fishing Net	Nos	1
14	Synthetic hormones	Nos	1
15	Distilled water	liters	1
16	Canvas bags	Nos	1
17	Hatching hapa	Nos	1
18	Hand gloves	Nos	30
19	Video Recording Equipment	Nos	1
20	Gumboots	Nos	5

#### 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	College of Fisheries, CAU	Prof. Arun Bhai Patel	Dean	Lembucherra, Tripura- 799210,	6033158155	cofcdu.agt-tr@gov.in	
2	Associated Tea & Agro Management Services Pvt Ltd	Angello S Ahmed	Sr Project Coordinator	Guwahati, Assam	8486205400	angello.ahmed@atmsagro.org	
3	Centre for Aquatic Livelihood Jaljeevika	Subodh Kumar	Lead- Knowledge Management and Partnerships	Wanowarie, Pune, 411040	9156695505	Subodh.kumar@jaljeevika.org	
4	Kailash Fisheries and Aquatics	Akshya Kumar Sahu	MD	Baisinga, Mayurbhanj, Odisha	9437147897	akshyakumarsahu1977@gmail.co m	
5	Kailash Education & Empowerment Trust	Mr. Sanjay Kumar Sahu	Secretary	Mayurbhanha, Odisha	9437191841	akshyakumarsahu1977@gmail.co m	
6	Aum Academia Private Limited	Dr (Prof). Damodar Satapathy	Director	Bhubaneswar	9861077340	dsp1959satapathy@gmail.com	
7	Ashirwad Mercantile PVT LTD	Ranjan Kumar Mohanty	Managing Director	Odisha	7978924324	mohantyr786@gmail.com	
8	KVK Namthang	Indra Prasad Shivaroti	Senior Scientist and Head	Namthang, Namchi	7430832200	kvknamthang@gmail.com	
9	Department of Extension Education, Jorhat	Dr. Sundar Barman	Associate professor	Jorhat, Assam			

Annexure 4: Training & Employment Details

**Training and Employment Projections:** 

Year	To	otal Candidates		Women	People with Disability		
	Estimated	Estimated Employment	Estimated	<b>Estimated Employment</b>	Estimated	Estimated Employment	
	Training #	Opportunities	Training #	Opportunities	Training #	Opportunities	
2024-25	600						
2025-26	600						
2026-27	800						

Data to be provided year-wise for next 3 years

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

Qualificatio	Year Total Candidates					Wo	men		People with Disability				
n Version		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assesse d	Certifie d	Placed
3.0	2021-24	1260											

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:

PMKVY

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/N4966: Ensure the soil	Supervise the soil conditioning process	12	16		12
and water quality in the	PC1. instruct the aquaculture worker to check the pH level of the soil				
culture pond	using a pH meter and apply lime or gypsum to it in the recommended	_	_	_	_
	quantity to adjust the pH				
	PC2. determine the need of applying fertilisers to the culture pond soil				
	through soil testing by an approved lab	_	_	1 -	_
	PC3. arrange for the recommended fertilisers such as basal manure or				
	any other necessary soil treatment to be applied to the soil in an	_	_	_	_
	appropriate quantity				
	PC4. ensure the soil in the culture pond is capable of holding water				

		-	-	-	_
	Ensure required water quality in the culture pond	12	16	-	12
	PC5. ensure the culture pond has the optimum temperature level				
	required for the fish/ crustacean species to be cultured	_	_	_	_
	PC6. ensure the pond has the recommended level of dissolved oxygen, salinity and alkalinity required for the fish/ crustacean species to be cultured	-	-	-	-
	PC7. ensure the culture pond has the optimum depth appropriate for the fish/ crustacean species to be cultured	-	-	-	-
	PC8. arrange for the pond water to be replaced for the removal of any waste in the pond	-	-	-	-
	Optimise resource utilisation	6	8	-	6
	PC9. use water and other resources optimally in various tasks and				
	processes and ensure the aquaculture workers also do the same	_	_	_	-
	PC10. arrange for any water leakages to be plugged to prevent its				
	wastage	-	-	-	-
	Total Marks	30	40		30
AGR/N4968: Feeding and	Feed Quality				
monitoring the Fish seed	PC1. Ensure adherence to a strict feed quality control program,				
	including regular inspections and testing				
	PC2. use high-quality, nutritionally balanced feed that meets the				
	specific needs of the fish species and growth stages				
	PC3. Ensure proper storage and handling of feed to maintain its nutritional value and prevent spoilage.				
	Feeding Frequency and Quantity				
	PC4. ensure accurate calculation and distribution of feed amounts				
	based on fish size, water temperature, and growth rates				
	PC5. Ensure consistent feeding schedules to avoid overfeeding or underfeeding				
	PC6. Use automated feeding systems or manual feeding methods that ensure even distribution of feed throughout the tanks				
	Feed Conversion Ratio (FCR)				
	PC7. Monitor and optimization of FCR to minimize feed wastage and maximize fish growth				

	PC8. implement strategies to improve FCR, such as adjusting feeding				
	rates, improving water quality, and preventing disease outbreaks				
	Growth Rates				
	PC12. track and monitor fish growth rates to assess the effectiveness of				
	feeding and management practices				
	PC13. use standardized growth measurement methods to ensure				
	accurate data collection				
	PC14. Comparison of growth rates to industry benchmarks and setting				
	performance targets				
	Mortality Rates				
	PC15. record and analyze mortality rates to identify potential causes				
	such as excessive feed, disease, poor water quality, or other factors and				
	implement corrective measures				
	Total Marks	30	40	-	30
	Ensure pond preparation for the selected seed species				
		8	12	-	8
	PC1. identify the species to be grown for seeds				
	such as carps, catfish, murrel, freshwater prawn, etc.				
	PC2. ensure the pond is prepared according to the stages of growth of				
	the seed to be grown, such as spawn to fry, fry to fingerling, post-larvae				
	to juvenile, etc.				
	PC3. arrange for de-mudding to be carried out in the pond				
	PC4. instruct the workers to drain out and sun-dry the perennial pond				
	PC5. ensure the aquatic weeds, predatory and weed fish are removed				
	from the pond				
AGR/N4931: Supervise the culture, harvest and post-	PC6. arrange for the appropriate treatment to be applied for controlling				
harvest activities	aquatic insects before seed stocking				
	Purchase the seeds and supervise their stocking	6	8	_	6
	PC7. identify the vendors of the seeds of the selected species to be				
	cultured				
	PC8. select a vendor based on the quality of seeds				
	PC9. arrange for an appropriate mode of transport for stress-free				
	transportation of seeds to the pond				
	PC10. arrange for the seeds to be acclimatized before being stocked				
	PC11. maintain the record of purchase				
	PC12. ensure that seeds are stocked at the species ratio and density				
	recommended for the selected species				
	recommended for the selected species				

Supervise maintenance of the stocked seeds in the pond		0		
DC12 are use the management and suptominated and Balatica Homeidity (DH)	4	8	-	6
PC13. ensure the recommended water level and Relative Humidity (RH)				
are maintained in the pond for the selected species				
PC14. instruct the workers to carry out the relevant culture activities				
for the stocked species				
PC15. ensure the seeds are given feed with the required nutrients in				
the recommended quantity and as per the feeding schedule				
PC16. arrange for periodic sampling of water, soil and seeds to check				
the occurrence of pathogens, abnormalities and infections				
PC17. ensure optimum salinity, pH, oxygen and temperature levels are				
maintained in the pond during culture operations				
PC18. instruct the workers to monitor the stocked seeds for signs of				
harmful organisms and disease				
PC19. arrange for the necessary treatment to be applied in the pond				
free remove harmful organisms and disease				
Supervise harvesting and packing of seeds	8	6	-	6
PC20. identify the maturity of seeds to ensure their readiness for being				
harvested				
PC21. ensure nets with appropriate mesh size are selected for				
harvesting the seeds				
PC22. instruct the workers to harvest the seeds using an appropriate				
method, ensuring no damage to them				
PC23. ensure conditioning of the seeds before transportation				
PC24. instruct the workers to pack the harvested fish seeds in				
appropriate containers at the optimum density				
PC25. ensure an appropriate mode of transport is used to transport the				
harvested seeds to the buyer or target market in hygienic conditions				
with the minimum stress				
Perform waste management	4	6	-	4
PC26. segregate waste into appropriate categories				
PC27. arrange for safe disposal of non- recyclable waste				
PC28. use lime or the approved disinfectant(s) to recycle the				
wastewater and ensure the workers also do the same				
PC29. ensure the quality parameters of the treated water are checked				
to determine its suitability for re-use				

	PC30. arrange for the recycled water to be utilised in appropriate				
	culture operations				
	Total Marks	30	40	-	30
AGR/N4918: Ensure health, hygiene and safety during	Ensure the upkeep of water body, tools and equipment	10	12	-	8
culture operations	PC1. ensure the necessary practices are followed to protect the				
	aquaculture farm and dykes from erosion and natural calamities such as flood and storms				
	PC2. ensure protection of the cultured organisms from water/ air/				
	fomite borne diseases and contamination from handling				
	PC3. identify and eliminate common predators and preying organisms from the water body				
	PC4. ensure fences are erected to protect the water body from external threats				
	PC5. restrict the entry of unauthorised persons into the aquaculture area				
	PC6. follow the recommended practices to prevent the escape of cultured organisms from the culture pond/ tank				
	PC7. conduct regular tests to ensure the appropriate soil and water quality parameters are maintained in the water body				
	PC8. ensure all the nets, vessels, tools and equipment are cleaned and de-contaminated regularly				
	Maintain personal hygiene and safety	10	12	-	12
	PC9. ensure basic safety checks are undertaken before the operation of any tools and equipment				
	PC10. ensure the use of relevant Personal Protective Equipment (PPE) during various aquaculture operations				
	PC11. use the recommended soap/ sanitiser to sanitise the hands and ensure the other personnel also use it				
	PC12. follow the standard procedures to deal with accidents and emergencies				
	PC13. use the first-aid kit to provide appropriate treatment in case of any injuries				
	PC14. co-ordinate with the emergency services for further medical attention				
	Maintain the health of cultured organisms	10	16	-	10

	PC15. follow the recommended prophylactic measures and ensure				
	hygienic conditions during all the stages of growth of the cultured				
	organisms				
	PC16. examine the cultured organisms regularly to detect the				
	symptoms of parasites, pathogenic infections, phenotypic disorders,				
	etc.				
	PC17. ensure the necessary medicines/ chemicals are applied as per				
	prescription, maintaining the toxicity levels within the				
	prescribed limits				
	PC18. use the recommended therapeutic practices in combination with				
	the prescribed treatment for the speedy recovery of the diseased				
	organisms				
	PC19. identify a quarantine area and arrange for the diseased				
	organisms to be quarantined and treated				
	PC20. co-ordinate with an expert to deal with unexpected disease				
	outbreak among the cultured organisms				
	PC21. ensure timely removal of the dead and moribund organisms from				
	the water body				
	PC22. arrange for safe disposal of the dead and diseased organisms				
	Total Marks	30	40	-	30
AGR/N9923: Manage and	Manage the team performance	30	40 18	-	30
AGR/N9923: Manage and lead a team effectively	Manage the team performance PC1. prepare a work plan according to the tasks and the number of			-	
	Manage the team performance PC1. prepare a work plan according to the tasks and the number of available team members			-	
	Manage the team performance PC1. prepare a work plan according to the tasks and the number of available team members PC2. allocate tasks to the team members according to their skills and			-	
	Manage the team performance PC1. prepare a work plan according to the tasks and the number of available team members PC2. allocate tasks to the team members according to their skills and roles			-	
	Manage the team performance  PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team			-	
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform			-	
	Manage the team performance  PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties			-	
	Manage the team performance  PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with			-	
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with the team members regarding their work objectives, projects, work			-	
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with the team members regarding their work objectives, projects, work progress, etc.			-	
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with the team members regarding their work objectives, projects, work progress, etc.  PC5. monitor the performance of each team member and progress of			-	
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with the team members regarding their work objectives, projects, work progress, etc.  PC5. monitor the performance of each team member and progress of the tasks assigned to them			-	
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with the team members regarding their work objectives, projects, work progress, etc.  PC5. monitor the performance of each team member and progress of the tasks assigned to them  PC6. collect the team performance data and prepare the necessary			-	
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with the team members regarding their work objectives, projects, work progress, etc.  PC5. monitor the performance of each team member and progress of the tasks assigned to them  PC6. collect the team performance data and prepare the necessary reports				
	PC1. prepare a work plan according to the tasks and the number of available team members  PC2. allocate tasks to the team members according to their skills and roles  PC3. arrange the necessary support and resources to help the team members perform their duties  PC4. conduct regular team meetings/ briefings to communicate with the team members regarding their work objectives, projects, work progress, etc.  PC5. monitor the performance of each team member and progress of the tasks assigned to them  PC6. collect the team performance data and prepare the necessary				

	performance in improving their performance				
	PC9. arrange for reward and recognition for the team members with good performance				
	PC10. arrange for relevant training and upskilling of the team members				
	for their professional development	10	10		0
	Maintain a fair and professional work environment	10	16	-	8
	PC11. maintain professional relationships with the team members				
	PC12. conduct counselling sessions to resolve conflicts among the team				
	members				
	and guide them regarding their professional development				
	PC13. communicate with the team members to understand their				
	concerns and find appropriate solutions				
	PC14. ensure equal and fair career progression opportunities for all the team members				
	Promote inclusion at work	8	6	-	10
	PC15. ensure a conducive environment for all the genders at the				
	workplace				
	PC16. encourage appropriate behaviour and conduct with people				
	across genders				
	PC17. ensure appropriate verbal and non- verbal communication while				
	interacting with Persons with Disabilities (PwD)				
	PC18. ensure equal participation of PwD and people across genders in				
	workplace discussions				
	Total Marks	30	40	-	30
DGT/VSQ/N0103:	Introduction to Employability Skills	1	1	-	-
Employability Skills (60	PC1. understand the significance of employability skills in meeting the				
Hours)	current job market requirement and future of work				
	PC2. identify and explore learning and employability relevant portals				
	PC3. research about the different industries, job market trends, latest				
	skills required and the available opportunities				
	Constitutional values – Citizenship	1	1	-	-
	PC4. 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.				
	PC5. follow environmentally sustainable practices				
	Becoming a Professional in the 21st Century	1	3	-	-
	,	1	-		

PC6. recognize the significance of 21st Century Skills for employment				
PC7. practice the 21st Century Skills such as Self- Awareness, Behavious	r			
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				
PC8. adopt a continuous learning mindset for personal and professional	al			
development				
Basic English Skills	3	4	-	-
PC9. use basic English for everyday conversation in different contexts,				
in person and over the telephone				
PC10. read and understand routine information, notes, instructions,				
mails, letters etc. written in English				
PC11. write short messages, notes, letters, e-mails etc. in English				
Career Development & Goal Setting	1	2	-	-
PC12. identify career goals based on the skills, interests, knowledge,				
and personal attributes				
PC13. prepare a career development plan with short- and long-term				
goals				
Communication Skills	2	2	-	-
PC14. follow verbal and non-verbal communication etiquette while				
communicating in professional and public settings				
PC15. use active listening techniques for effective communication				
PC16. communicate in writing using appropriate style and format based	d			
on formal or informal requirements				
PC17. work collaboratively with others in a team				
Diversity & Inclusion	1	1	-	-
PC18. communicate and behave appropriately with all genders and				
PwD				
PC19. escalate any issues related to sexual harassment at workplace				
according to POSH Act				
Financial and Legal Literacy	2	3	-	-
PC20. identify and select reliable institutions for various financial				
products and services such as bank account, debit and credit cards,				
loans, insurance etc.				
PC21. carry out offline and online financial transactions, safely and				
securely, using various methods and check the entries in the passbook				
,,				

PC22. identify common components of salary and compute income,				
expenses, taxes, investments etc				
PC23. identify relevant rights and laws and use legal aids to fight				
against legal exploitation				
Essential Digital Skills	3	5		
PC24. operate digital devices and use their features and applications				
securely and safely				
PC25. carry out basic internet operations by connecting to the internet				
safely and securely, using the mobile data or other available networks				
through Bluetooth, Wi-Fi, etc.				
PC26. display responsible online behaviour while using various social				
media platforms				
PC27. create a personal email account, send and process received				
messages as per requirement				
PC28. carry out basic procedures in documents, spreadsheets and				
presentations using respective and appropriate applications				
PC29. utilize virtual collaboration tools to work effectively				
Entrepreneurship	2	3	-	-
PC30. identify different types of Entrepreneurship and Enterprises and				
assess opportunities for potential business through research				
PC31. develop a business plan and a work model, considering the 4Ps of				
Marketing Product, Price, Place and Promotion				
PC32. identify sources of funding, anticipate, and mitigate any financial/				
legal hurdles for the potential business opportunity				
Customer Service	1	2	-	-
PC33. identify different types of customers and ways to communicate				
with them				
PC34. identify and respond to customer requests and needs in a				
professional manner				
PC35. use appropriate tools to collect customer feedback				
PC36. follow appropriate hygiene and grooming standards				
Getting ready for apprenticeship & Jobs	2	3	-	-
PC37. create a professional Curriculum vitae (Résumé)				
PC38. search for suitable jobs using reliable offline and online sources				
such as Employment exchange, recruitment agencies, newspapers etc.				
and job portals, respectively				

	PC39. apply to identified job openings using offline /online methods as				
	per requirement				
	PC40. answer questions politely, with clarity and confidence, during				
	recruitment and selection				
	PC41. identify apprenticeship opportunities and register for it as per				
	guidelines and requirements				
	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. <u>Practical</u>: To evaluate skills and identify competencies.(Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real time' internet based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on 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
  - o Assessor feedback sheet
  - Candidate feedback sheet
  - Assessment checklist for assessor
  - Candidate Aadhar/ID card verification
  - o Pictures of classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
  - o 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.
- <u>Video Calls</u>: 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
- <u>Video and Picture Evidence:</u> 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.
- <u>Geo Tagging:</u> 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: 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

diobbary	
Term	Description
National Occupational	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual
Standards (NOS)	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. <a href="https://ncvet.gov.in/sites/default/files/NCVET.pdf">https://ncvet.gov.in/sites/default/files/NCVET.pdf</a>