



QUALIFICATION FILE

Fishery Hatchery Production Worker

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

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

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

NCrF/NSQF Level: 2.5

Submitted By:

Agriculture Skill Council of India

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

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Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.	5
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Section 1: Basic Details

1.	Qualification Name	Fishery Hatchery Production Worker																			
2.	Sector/s	Agriculture																			
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing qualification: QG-03-AG-00330-2023-V1.1-ASCI & Version 1.1	Qualification Name of existing/previous version: Hatchery Production Worker																		
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																			
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-2.5-AG-03557-2025-V2-ASCI & Version 2.0	6. NCrf/NSQF Level: 2.5																		
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																			
8.	Brief Description of the Qualification	The fishery hatchery production worker assists in pre-spawning, spawning and post-spawning activities and performs general maintenance of the hatchery.																			
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>9th or equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>8th class pass</td> <td>1.5 years of relevant experience in agriculture and allied sectors</td> </tr> <tr> <td>3</td> <td>5th class pass</td> <td>6 years of relevant experience in agriculture and allied sectors</td> </tr> <tr> <td>4</td> <td>Previous NSQF Level 2</td> <td>0.5 years of relevant experience in agriculture and allied sectors</td> </tr> <tr> <td>5</td> <td>Previous NSQF Level 1</td> <td>1.5 years of relevant experience in agriculture and allied sectors</td> </tr> </tbody> </table>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	9 th or equivalent		2	8 th class pass	1.5 years of relevant experience in agriculture and allied sectors	3	5 th class pass	6 years of relevant experience in agriculture and allied sectors	4	Previous NSQF Level 2	0.5 years of relevant experience in agriculture and allied sectors	5	Previous NSQF Level 1	1.5 years of relevant experience in agriculture and allied sectors
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5	Previous NSQF Level 1	1.5 years of relevant experience in agriculture and allied sectors																			
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrf))	8	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																		

12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																						
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	☒ Offline ☐ Online ☐ Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>110</td> <td>130</td> <td></td> <td></td> <td>240</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> (Refer Blended Learning Annexure for details)					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	110	130			240	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	110	130			240																			
Online																								
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/6221.0102																						
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Fishery Hatchery Production Worker (L2.5), Fishery Hatchery Assistant (L3)																						
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																						
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																						
18.	Is the Job Role Amenable to Persons with Disability	☒ Yes ☐ No If "Yes", specify applicable type of Disability: SHI																						
19.	How Participation of Women will be Encouraged	Batches specific to women will be formed																						
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	☒ Yes ☐ No DGT/VSQ/N0101 (v1.0)																						
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☒ Yes ☐ No Colleges ☒ Yes ☐ No																						
22.	Name and Contact Details of Submitting / Awarding Body SPOC (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/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Assist in setting up the hatchery and carrying out pre-spawning activities	AGR/N4902 (v3.0)	Core	2.5	2	15	45			60	30	40		30	100	20
2	Assist in carrying out larvae production	AGR/N4903 (v3.0)	Core	2.5	2	15	45			60	30	40		30	100	20
3	Assist in carrying out the post-spawning process	AGR/N4904 (v4.0)	Core	2.5	1	15	15			30	30	40		30	100	25
4	Maintain the hatchery	AGR/N4905 (v3.0)	Core	2.5	1	15	15			30	30	40		30	100	20
5	Maintain health and safety at the workplace	AGR/N9903 (v4.0)	Non-Core	4	1	20	10			30	30	25		35	100	10
8	Employability Skills (30 Hours)	DGT/VSQ/N 0101 (V1.0)	Non-Core	2.5	1	30				30	20	30			50	5
Duration (in Hours) / Total Marks					8	110	130			240	180	215		155	550	100

Assessment - Minimum Qualifying Percentage

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

Minimum Pass Percentage – Aggregate at qualification level: 50 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

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

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	Diploma (Fisheries) with 3 years of relevant industry experience in Fishery Production and management* * Regular Diploma of more than 15 months in fisheries OR B.Sc (Zoology) with 3 years of relevant industry experience in Fishery Production and management** **For the school Program minimum qualification of the Trainer should be Graduate in (Fisheries Science/Industrial Fish & Fisheries/Zoology). Their Teaching experience will be considered industry experience OR Graduate (Agriculture) with 2 years of relevant industry experience in Fishery Production and management OR Certificate-NSQF (Hatchery Manager) with 5 years of relevant industry experience in Fishery Production and management*** ***5 Years of experience with corporates/ NGO/ Fisheries Entrepreneur OR Graduate (Fisheries Science)
2.	Master Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	5 years of training experience in Fishery Production and management after Graduation (Agriculture) with 2 years of relevant industry experience in Fishery Production and management OR 5 years of training experience in Fishery Production and management after Graduation (Fisheries Science)
3.	Tools and Equipment Required for Training	☒ Yes ☐ No <i>(If "Yes", details to be provided in Annexure)</i>
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

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

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): No
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 8
5.	Estimated nos. of persons to be trained and employed: 2000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes, concurrence received from Dep of Fisheries, Ministry of fisheries animal husbandry and dairying

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	<i>Annexure-1</i>
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Annexure-2</i>
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Annexure-5</i>
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	<i>Annexure-6</i>
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	<i>NA</i>
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	<i>NA</i>
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	<i>Annexure-7</i>
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	<i>Fishery Hatchery Production Worker (L2.5), Fishery Hatchery Assistant (L3)</i>
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	<i>Annexure-8</i>
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	<i>Annexure-9</i>
12.	Any other document you wish to submit:	

Annexure 1: Evidence of Level

NCrf/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrf/NSQF level descriptor	NCrf/NSQF Level
Professional Theoretical Knowledge/Process	- Assist in setting up the hatchery - Assist in selecting healthy broodstock - Assist in acclimatising the broodstock - Assist in spawning - Assist in feeding	The hatchery production worker assists in prespawning, spawning and post-spawning activities and performs general maintenance of the hatchery.	2.5

Professional and Technical Skills/ Expertise/ Professional Knowledge	• Administer appropriate emergency procedures • Maintain clean and safe workplace • Assist in maintaining the temperature • Perform waste management	The job holder should have the knowledge of processing of setting up a hatchery, importance of checking the origin of the broodstock to ensure their quality, process of treating and recycling wastewater and other types of waste, process for acclimatising the broodstock. The job holder should assist in selecting healthy broodstock of the selected species through careful examination, check the origin of the broodstock and their weight to ensure compliance with the established quality standards, maintain separate treatment and disinfection areas, keeping them free of infectious organisms, follow the appropriate measures/ supervisor's instructions to prevent contamination and growth of harmful organisms in the maturation facility	2.5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Prepare the fry for being transported • Optimise resource utilisation • Practice inclusion at work • Perform waste management • Assist in optimising resource utilization	The job holder should possess the skill to dispose the infected/ unfit broodstock and wastewater following the supervisor's instructions/ recommended practices, assist in acclimatising the broodstock to the environment in the maturation facility, regulating the temperature as per the supervisor's instructions, maintaining the recommended water, salinity, pH and oxygen levels in the maturation facility, monitoring the spawning rate and process, maintaining the harvested larvae in optimal conditions. The job holder should also feed the larvae ensuring an appropriate quantity of nutrients, maintain the water quality parameters as per the instructions to ensure optimum growth of Larvae, carry out the stress test under supervision, identify the signs of disease and infection in the larvae with the supervisor's help.	2.5
Broad Learning Outcomes/Core Skill	• Follow the broodstock quarantine procedure • Assist in maintaining the maturation room and broodstock	The job holder should follow the recommended practices to protect the fry from contamination while being handled and transported, maintain an adequate number of containers in the quarantine room for effective routine in and out	2.5

	- Assist in performing larvae feed management - Assist in performing larvae health management	movement of broodstock, feed the broodstock with a balanced diet containing the recommended quantity of vitamins, minerals, and fatty acids, wash and disinfect the harvested larvae through an immersion bath to prevent Contamination, maintain the record of health checks, larvae growth, water quality parameters, etc. The holder should optimise the usage of water/ electricity/materials in various tasks/ activities/ processes, connect the electrical tools and equipment safely and turn them off when not in use, practice of stocking larvae in groups in separate units according to the stages of their Growth.	
Responsibility	- General maintenance of hatchery - Assisting in pre-spawning, spawning and post-spawning - Render appropriate emergency procedures. - Perform pre start checks, maintain a clean and efficient workplace	The hatchery production worker is responsible for assisting in and performing activities of monitoring the hatchery farm, proper hygiene, feeding mechanism. pre-spawning, spawning and post spawning activities	2.5

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

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Thermometer	Nos	1
2	Gloves	Nos	30
3	Chlorine	ml	50
4	Breeding Hapa	Nos	1
5	Ovaprim (or any other inducing hormone)	ml	25
6	Weighing machine	Nos	1
7	Syring	Nos	10

8	Tray	Nos	30
9	Spawn collection jar (50 ml)	Nos	1
10	Water pump	Nos	1
11	Boots	Nos	5
12	Face Masks	Nos	30
13	Rubber gloves	Nos	30
14	Plastic tanks (broodstock rearing tank, spawning tank, spawn rearing tank etc)	Nos	1
15	Video Recording Equipment	Nos	1
16	Feed (soyabean + rice bran)	kg	5
17	Aerators	Nos	1
18	Hypochlorite solution	ml	50
19	Surgical knife	Nos	2
20	pelletizer	Nos	1
21	Fish harvesting gears/nets	Nos	2
22	Filters (sand filter, carbon filter, bio filter etc)	Nos	5
23	Brood stock	Nos	25

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, ppschelke@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-Astupura, 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	500	100	60	20		
2026-27	500	100	60	20		

2027-28	1000	100	60	20		
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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	261	239	234	0	127	121	119	0	0			
3.0	2023-24	242	220	209	0	127	122	111	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

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/N4902: Assist in setting up the hatchery and carrying out pre-spawning activities	<i>Assist in setting up the hatchery</i>	6	10		6
	PC1. assist in setting up the required facility and infrastructure for the hatchery including the preand post-spawning tanks, etc				
	PC2. assist in setting up and checking the operation of pumps, filters and other equipment				
	<i>Assist in selecting healthy broodstock</i>	4	6		4
	PC3. assist in selecting healthy broodstock of the selected species through careful examination				
	PC4. check the origin of the broodstock and their weight to ensure compliance with the established quality standards				
	<i>Follow the broodstock quarantine procedure</i>	8	10		10
	PC5. quarantine the broodstock as per instructions until their disease/ infection status is ascertained				
	PC6. maintain an adequate number of containers in the quarantine room for effective routine in and out movement of broodstock				
	PC7. maintain separate treatment and disinfection areas, following the recommended practices to prevent the spread of infectious organisms				
	PC8. dispose the infected/ unfit broodstock and wastewater following the supervisor's instructions/ recommended practices				
	PC9. disinfect the tools and equipment used in the quarantine area regularly				
	<i>Assist in acclimatising the broodstock</i>	12	14		10
	PC10. assist in acclimatising the broodstock to the environment in the maturation facility, regulating the temperature as per the supervisor's instructions				
	PC11. maintain the recommended water, salinity, pH and oxygen levels in the maturation facility				
	PC12. follow the appropriate measures/ supervisor's instructions to prevent contamination and growth of harmful organisms in the maturation facility				
Total Marks		30	40		30
	<i>Assist in maintaining the maturation room and broodstock</i>	8	6		10

AGR/N4903: Assist in carrying out larvae production	PC1. maintain light in the maturation room as per the supervisor's instructions to support thematuration of broodstock				
	PC2. drain the maturation tanks and clean themperiodically as per instructions				
	PC3. maintain minimum noise and movement inthe maturation room				
	PC4. maintain the broodstock in the maturationroom until their maturation				
	<i>Assist in spawning</i>	6	12		8
	PC5. maintain the required water quality parameters for spawning as per the supervisor's instructions				
	PC6. disinfect the spawning tank for stocking the gravid female				
	PC7. identify the gravid female brood stock and place it in a container				
	PC8. transfer the gravid female broodstock with spermatophore to the spawning tank				
	PC9. feed the broodstock with a balanced diet containing the recommended quantity of vitamins, minerals, and fatty acids				
	PC10. monitor the spawning rate and process				
	PC11. count the eggs to determine the quantity of egg production and fertilization				
	PC12. collect the eggs to be transferred to the hatching tank				
	<i>Assist in hatching</i>	4	6		8
	PC13. prepare the isolation room and hatching tank				
	PC14. stock the eggs in the hatching tank, maintaining the same temperature as that of spawning tank				
	PC15. aerate the tanks as per instructions to keep the eggs moving				
	PC16. carry out aeration until the appearance ofnauplii				
	PC17. harvest the larvae as per instructions				
	PC18. wash and disinfect the harvested larvae through an immersion bath to prevent contamination				
	PC19. discard the weaker larvae and unhatchedeggs				
	<i>Assist in screening the larvae</i>	12	16		4
	PC21. assist in screening the larvae on the relevant parameters				
	PC22. maintain the harvested larvae in optimal conditions				
	Total Marks	30	40		30
	<i>Assist in performing larvae's feed management</i>	8	12		6

AGR/N4904: Assist in carrying out the post-spawning process	PC1. prepare larvae feed as per the supervisor's instructions				
	PC2. follow the recommended practices to protect the feed from contamination during its storage and handling				
	PC3. store the feed in cool, dry and well-ventilated condition				
	PC4. feed the larvae ensuring an appropriate quantity of nutrients				
	PC5. apply changes to the feed according to the stages of larvae's growth				
	<i>Assist in performing larvae's health management</i>	6	8		8
	PC6. maintain the water quality parameters as per the instructions to ensure optimum growth of larvae				
	PC7. stock larvae in groups in separate units according to the stages of their growth, maintaining the recommended stocking density				
	PC8. check the health of larvae regularly as per the supervisor's instructions				
	PC9. maintain the record of health checks, larvae growth, water quality parameters, etc.				
	PC10. carry out the stress test under supervision				
	PC11. identify the signs of disease and infection in the larvae with the supervisor's help				
	PC12. assist in taking infected/moribund larvae samples if any to be examined in a laboratory to determine the type of infection and disease infecting them				
	PC13. maintain the larvae until they grow to the size of fry				
	<i>Prepare the fry for being transported</i>	8	8		8
	PC14. stock the larvae/post-larvae in appropriate containers/ tanks for being transported				
	PC15. follow the recommended practices to protect the larvae/post-larvae from contamination while being handled and transported				
	PC16. check that the transport vehicle has the appropriate temperature and hygienic conditions for transporting larvae/post-larvae				
	<i>Optimise resource utilisation</i>	4	6		4
	PC17. optimise the usage of water/ electricity/materials in various tasks/ activities/processes				
	PC18. connect the electrical tools and equipment safely and turn them off when not in use				
	PC19. plug/arrest any water leakages to prevent its wastage				

	<i>Practice inclusion at work</i>	4	6		4
	PC20. practice appropriate behaviour with all genders at work				
	PC21. follow the recommended inclusive practices for People with Disabilities (PwD)				
	Total Marks	30	40		30
AGR/N4905: Maintain the hatchery	<i>Assist in maintaining hygiene and safety in the hatchery</i>	8	12		10
	PC1. maintain hygiene and dry the floor in the hatchery to prevent disease/ infections and any accidents				
	PC2. clean and disinfect the tanks, tool and equipment regularly				
	PC3. follow the recommended safety measures while handling different types of chemicals				
	PC4. treat the water with chlorine, dechlorinate and filter it before it is used in the hatchery				
	<i>Carry out repair and maintenance work</i>	14	18		12
	PC5. check the hatchery regularly to identify any infrastructural repair and maintenance needs				
	PC6. check the water supply and disposal system to identify repair and maintenance needs				
	PC7. arrange an alternative water supply with the supervisor's help before carrying out any repair and maintenance of the water supply system				
	PC8. carry out all repair and maintenance activities as per the Standard Operating Procedure (SOP) and report complex repair needs to the supervisor				
	PC9. assist the supervisor in maintaining the record of repair and maintenance activities				
	<i>Perform waste management</i>	8	10		8
	PC10. segregate waste into appropriate categories				
	PC11. collect wastewater to be treated and recycled				
	PC12. assist in the treatment and recycling of wastewater and other types of waste				
	PC13. dispose the non-recyclable waste appropriately				
	Total Marks	30	40		30
AGR/N9903: Maintain health and safety at the workplace	<i>Maintain personal hygiene</i>	10	5	-	10
	PC1. wash hands, legs and face with soap/alcohol-based sanitizer at reasonable intervals				

PC2. wash the worn clothes with soap and sun-dry before use next time				
PC3. ensure the face is covered with mask or three layers of cloth-piece				
PC4. follow the workplace sanitisation norms including distancing from sick people				
<i>Maintain clean and safe workplace</i>	15	15	-	15
PC5. carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor				
PC6. wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy				
PC7. follow the instructions mentioned on the labels of chemicals/pesticides/ fumigants etc. to avoid hazards				
PC8. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices				
PC9. sanitize equipment, tools and machinery before and after use				
PC10. use equipment and materials safely and correctly and return the same to designated storage after use				
PC11. dispose waste safely and correctly in the designated area				
PC12. recognize risks to bystanders and take required action to reduce the risks				
PC13. work in a manner which minimizes environmental damage, ensuring all procedures and instructions				
PC14. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger				
PC15. follow government / workplace advisories in case of outbreak of any disease/disaster				
<i>Administer appropriate emergency procedures</i>	15	5	-	10
PC16. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements				
PC17. use emergency equipment in accordance with manufacturer's specifications and workplace requirements				
PC18. report provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques				

	PC19. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate				
	PC20. report details of first aid administered in accordance with workplace procedures				
	Total Marks	40	25		35
DGT/VSQ/N0101: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements				
	<i>Constitutional values – Citizenship</i>	1	1		
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices			-	-
	<i>Becoming a Professional in the 21st Century</i>	2	4		
	PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.				
	<i>Basic English Skills</i>	2	3	-	-
	PC4. speak with others using some basic English phrases or sentences				
	<i>Communication Skills</i>	1	1		
	PC5. follow good manners while communicating with others			-	-
	PC6. work with others in a team				
	<i>Financial and Legal Literacy</i>	3	4		
	PC7. use various financial products and services safely and securely				
	PC8. calculate income, expenses, savings etc.			-	-
	PC9. approach the concerned authorities for any exploitation as per legal rights and laws				
	<i>Essential Digital Skills</i>	4	6		
	PC10. operate digital devices and use its features and applications securely and safely			-	-
	PC11. use internet and social media platforms securely and safely				
	<i>Entrepreneurship</i>	3	5		
	PC12. identify and assess opportunities for potential business			-	-
	PC13. identify sources for arranging money and associated financial and				

	legal challenges				
	<i>Customer Service</i>	2	2		
	PC14. identify different types of customers			-	-
	PC15. identify customer needs and address them appropriately				
	PC16. follow appropriate hygiene and grooming standards				
	<i>Getting ready for apprenticeship & Jobs</i>	1	3		
	PC17. create a basic biodata				
	PC18. search for suitable jobs and apply			-	-
	PC19. identify and register apprenticeship opportunities as per requirement				
	Total Marks	20	30	-	

Annexure 6: Assessment Strategy

This section is for identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. Assessment

In Agriculture, it is essential to ensure that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the analysis of the job roles, SSC in association with empanelled AAs, define the test structure for the given job roles to cover the required skills and competencies 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
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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: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

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