



QUALIFICATION FILE

Integrated Farming Practitioner

Short Term Training (STT) Long Term Training (LT) Apprenticeship

Upskilling Dual/Flexi Qualification For ToT For ToA

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

NCrF/NSQF Level: 4

Submitted By:

Agriculture Skill Council of India

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

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Section 1: Basic Details

1.	Qualification Name	Integrated Farming Practitioner													
2.	Sector/s	Agriculture													
3.	Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing/previous qualification: <i>(change to previous, once approved)</i> NA	Qualification Name of existing/previous version: NA												
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	NA													
5.	National Qualification Register (NQR) Code & Version <i>(Will be issued after NSQC approval)</i>	QG-04-AG-02426-2024-V1-ASCI	6. NCrF/NSQF Level: 4												
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate													
8.	Brief Description of the Qualification	The individual is responsible for optimising farming practices through the development of a sustainable integrated approach. The individual maximises income, family nutrition and ecosystem services by using appropriate management tools in a mix of two or more farming components including crop production, livestock rearing, aquaculture and allied agriculture activities.													
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	<p>a. Entry Qualification & Relevant Experience:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 50%;">Academic/Skill Qualification (with Specialization - if applicable)</th> <th style="width: 40%;">Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12th or Equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>Previous relevant Qualification of NSQF Level 3.5</td> <td>1.5-year experience in Agriculture and allied sectors</td> </tr> <tr> <td>3</td> <td>Previous relevant Qualification of NSQF Level 3</td> <td>3-years experience in Agriculture and allied sectors</td> </tr> </tbody> </table> <p>b. Age: NA</p>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12 th or Equivalent		2	Previous relevant Qualification of NSQF Level 3.5	1.5-year experience in Agriculture and allied sectors	3	Previous relevant Qualification of NSQF Level 3	3-years experience in Agriculture and allied sectors
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)													
1	12 th or Equivalent														
2	Previous relevant Qualification of NSQF Level 3.5	1.5-year experience in Agriculture and allied sectors													
3	Previous relevant Qualification of NSQF Level 3	3-years experience in Agriculture and allied sectors													
10.	Credits Assigned to this Qualification, Subject to Assessment <i>(as per National Credit Framework (NCrF))</i>	13	11. Common Cost Norm Category (I/II/III) <i>(wherever applicable): II</i>												

12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																							
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Training Delivery Modes</th> <th style="text-align: center;">Theory (Hours)</th> <th style="text-align: center;">Practical (Hours)</th> <th style="text-align: center;">OJT Mandatory (Hours)</th> <th style="text-align: center;">OJT Recommended (Hours)</th> <th style="text-align: center;">Total (Hours)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Classroom (offline)</td> <td style="text-align: center;">190</td> <td style="text-align: center;">170</td> <td style="text-align: center;">30</td> <td></td> <td style="text-align: center;">390</td> </tr> <tr> <td style="text-align: center;">Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: center;">(Refer Blended Learning Annexure for details)</p>						Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	190	170	30		390	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																				
Classroom (offline)	190	170	30		390																				
Online																									
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/6130 (Mixed crop and animal workers)																							
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Integrated Farming Practitioner (L4), Agri-extension Executive (L5)																							
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	NA																							
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:																							
18.	Is the Job Role Amenable to Persons with Disability	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", specify applicable type of Disability: <i>LV, SHI</i>																							
19.	How Participation of Women will be Encouraged	Endeavour to include women in the batches																							
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Covered in DGT/VSQ/N0102)																							
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																							
22.	Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Mr Srikanth Pampana Email: standards@asci-india.com Contact No.: 0124-4670029 Website: www.asci-india.com																							
23.	Final Approval Date by NSQC: 30/04/2024	24. Validity Duration: 3 years post NSQC Approval			25. Next Review Date: 30/04/2027																				

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

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

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Identify compatible farm enterprises for integrated farming system	AGR/N1249 (v1.0)	Core	4	1	15	15			30	20	15	0	15	50	10
2.	Undertake integration of different enterprises to ensure resource use efficiency	AGR/N1250 (v1.0)	Core	4	2	30	30			60	20	20	0	10	50	20
3.	Implement biosecurity measures	AGR/N1251 (v1.0)	Core	4	1	15	15			30	15	20	0	15	50	10
4.	Manage an integrated farm production	AGR/N1252 (v1.0)	Core	4	3	30	60			90	15	20	0	15	50	25
5.	Harvest and market crops/produce in an Integrated Farming system	AGR/N1253 (v1.0)	Core	4	2	30	30			60	15	20	0	15	50	15
6.	Enhance traceability and sustainability in an Integrated Farming System	AGR/N1254 (v1.0)	Core	4	1	10	20			30	20	15	0	15	50	15
7.	Employability Skills (60 Hours)	DGT/VSQ/N 0102	Non-Core	4	2	60				60	20	30			50	5
8.	OJT (Mand.)				1			30		30						
Duration (in Hours) / Total Marks					13	190	170	30		390	125	140	0	85	350	100

Assessment - Minimum Qualifying Percentage

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

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

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

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	<p>Diploma in Agriculture/crop production/seed production/Dairy Management/Animal Husbandry / Animal Husbandry and Veterinary Science / Animal sciences/ Animal production and management with 5 years of relevant industry or training experience integrated farming systems, sustainable livestock and agriculture management practices.</p> <p>OR</p> <p>Graduate in Agriculture/Horticulture and Animal Husbandry and equivalent with 3 years of relevant industry or training experience in farming systems and sustainable farm management</p> <p>OR</p> <p>M.Sc. in agriculture and allied sciences with 1 year of relevant industry or training experience in farming systems and sustainable farm management</p>
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	<p>5 years of training experience in farming systems and sustainable farm management after Graduation in Agriculture/Horticulture and Animal Husbandry and 3 years of relevant industry experience in farming systems and sustainable farm management</p> <p>OR</p> <p>5 years of training experience in farming systems and sustainable farm management after M.Sc. in agriculture and allied sciences with 1 year of relevant industry experience in farming systems and sustainable farm management</p>
3.	Tools and Equipment Required for Training	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If "Yes", details to be provided in Annexure)
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) (as per NCVET guidelines)	B.Sc. Agriculture/Horticulture and Animal Husbandry and equivalent to Agriculture / Animal sciences with 3 years of relevant experience in farming systems and sustainable farm management OR MSc in agriculture and allied sciences/Bsc Agriculture with MSc in any discipline with 1 year of relevant experience in relevant field OR PhD in agriculture with any specialization with 1 year of relevant experience in relevant field
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	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)	MSc in agriculture and allied sciences/Bsc Agriculture with MSc in any discipline with 10 year experience in relevant field.
4.	Assessment Mode (Specify the assessment mode)	Offline
5.	Tools and Equipment Required for Assessment	<input type="checkbox"/> Same as for training <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Scoping Study done for identification of critical skills in Indian agriculture, with the support of Department of Education, Australian Government and ASCI in collaboration with Adelaide University as principal partner and a few other Australian and Indian partners.
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: 22
5.	Estimated nos. of persons to be trained and employed: 50/year
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Awaited

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrF/NSQF level justification based on NCrF level/NSQF descriptors (Mandatory)	<i>Included as Annexure 1</i>
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	<i>Included as Annexure 2</i>
3.	Annexure: Detailed Assessment Criteria (Mandatory)	<i>Included as Annexure 5</i>
4.	Annexure: Assessment Strategy (Mandatory)	<i>Included as Annexure 6</i>
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	NA
6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	NA
7.	Annexure: Acronym and Glossary (Optional)	
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	<i>Included as Annexure 8</i>
9.	Supporting Document: Career Progression (Mandatory - Public view)	<i>Included as Annexure 9</i>
10.	Supporting Document: Occupational Map (Mandatory)	<i>Included as Annexure 10</i>
11.	Supporting Document: Assessment SOP (Mandatory)	<i>Included as Annexure 11</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	The individual has knowledge of different models of Integrated farming systems and different interdependent and interacting farm enterprises for the efficient use of land, labour and other farm resources.	Possesses specialized operational knowledge and understanding of the work.	4

Professional and Technical Skills/ Expertise/ Professional Knowledge	<p>The individual is able to</p> <ul style="list-style-type: none"> • Select compatible farm enterprises for integrated farming system • Allocate and prepare land for integrated farming • Undertake integration of different enterprises to ensure resource use efficiency • Apply biosecurity measures • Manage an integrated farm production • Harvest crops/produce in an Integrated Farming system • Keep production records for an IFS • Improve sustainability through readily implementable change 	<p>Can apply the required knowledge for successfully implementing or applying techniques/processes in a specific field/ job role.</p>	4
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	<p>The individual is able to adopt appropriate sustainable practices that can be integrated for efficient farm production, viz. intercropping, crop rotation, agroforestry, fish farming, beekeeping, etc</p>	<p>Has good skills for self-employment And entrepreneurship skills/ entrepreneurial Mind-set which may potentially create job for more persons</p>	4
Broad Learning Outcomes/Core Skill	<p>The individual is able to identify potential areas across the value chain in current practices for improvement and improve sustainability of the farm through introducing readily implementable change.</p>	<p>Able to identify the problems and a wider possible range of solutions with pros and cons in production.</p>	4
Responsibility	<p>The individual is able to develop and implement plan for integrated farming systems to deliver desired outcomes.</p>	<p>Can perform all non-standard procedures and non-routine tasks with confidence.</p>	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	Yellow and Blue Sticky Traps	Nos	10
2	Pheromone traps	Nos	3
3	Light Traps	Nos	2
4	Bird Perches	Nos	4

5	FYM, compost	kg	10 kg
6	Wheel barrow	Nos	1
7	Dry fodder	kg	5-10
8	Milk container	Nos	1
9	Animal Medicine Kit/first aid kit	Nos	1
10	Casting Ropes (10-15 Meter)	Nos	4
11	Permanent Markers	Nos	4
12	Digging tools (Fawada, Khurpi)	Nos	4
13	Potassium Parmanganate sol	ml	200
14	Brooders	Nos	2
15	Chick guards	Nos	1
16	Feeders	Nos	1
17	Water drippers	Nos	1
18	Weighing scale	Nos	1
19	Sprayer	Nos	1
20	Litter raker	Nos	1
21	Plastic crates	Nos	1
22	De beaker	Nos	1
23	Temporary storage containers like jute/gunny bags, Freezers, tarpaulin sheets, cane containers, earthen pots etc	Nos	25
24	Egg trays / baskets	Nos	2

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. White board
2. Marker
3. Overhead projector
4. Laptop
5. Internet access

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, Amravati	Dr K P Singh	Sr Scientist and Head	Durgapur, Amravati	9637717818	pckvkda2015@gmail.com	
2	NAMCO (National Mother and Child Welfare Organization)	Mr C Jeevanandham	Executive Director	Thiruvarur, Tamil Nadu	7904788379/9842449409	namcoieevatvr@gmail.com	
3	IBRAD (Indian Institute of Bio Social Research and Development),	Professor S.B. Roy	Chairman	Prafulla Kanan, Kestopur, Kolkata 700101	9830037376	sbroy111@gmail.com	
4	Patanjali Organic Research Institute Pvt Ltd	Mr Pawan Kumar	Chief General Manager	Haridwar, Uttarakhand	9412075011	chiragpawan@yahoo.com	
5	Rajinder Agri Clinic	Mr Rajinder Singh	Managing Director	Amritsar, Punjab	9815008544	director@rajinderagriclinic.com	
6	Agrinext Consultancy	Ms. Madhuri Dixit Ghugari	Founder & Director	Pune	7440403736	madhuri@agrinextconsultancy.com	
7	Indian Institute of Plantation Management	Dr. K.C. Prakash	Assistant Professor	Bangalore	7619367720	kcp.iipmb@gmail.com	
8	Gramshree Agri Services Pvt Ltd	Ms Aastha Singh	Founder & CEO	Patna, Bihar	9608600960	gramshreeagri@gmail.com	
9	Indian Cardamom Research Institute, Spices Board	Dr. John Jo Varghese	Head, ICRI, RRS, Gangtok Sikkim	Gangtok, Sikkim	9495490555	johnjovarghese@nic.in	
10	Dr. Rajendra Prasad Central Agricultural University	Dr. Mohit Sharma	Asst. Scientist & Dy. Registrar	School of Agri-Business & Rural Management	9549034035	mohit.sharma@rpcau.ac.in	

	(RPCAU), Pusa, Samastipur, Bihar			(SAB&RM), RPCAU, Pusa, Samastipur, Bihar, 848125			
11	Vet Helpline India Pvt Ltd.	Dr. MI Barbaruah	Director	Guwahati, Assam	9435558835	director@vethelpline.co	
12	KVK_Nanded	Dr Madhuri Revanwar	Sr Scientist and Head	Nanded	9049388323	ssm.kvklearning@gmail.com	
13	KVK_Mahabubnagar	Dr. Khogare Dadasaheb Trimbak.	Sr Scientist and Head	Mahabubanagar, Telangana	9370006598	kvk_mahaboobnagar@yahoo.co.in	
14	KVK_Nadia	Dr Sanjay Kumar Ray	Sr Scientist and Head	Kalyani, Nadia	8729999748	kvkaddlnadia@gmail.com	
15	Assam Agriculture University	Dr. Sundar Barman	Associate Professor	Jorhat	9864253089	sundar.barman@aau.ac.in	
16	KVK Barpeta	Dr Pibnkudhar Barman	Subject Matter Specialist	Howly	8011605292	pinkukvk12@rediffmail.com	
17	KVK Golaghat	Dr Bhabesh Chandra Deka	Sr Scientist and Head	Golaghat	9435340387	kvk_golaghat@aau.ac.in	
18	ICAR NRRI	Dr Kanchan Saikia	Principal Scientist & Incharge Head	Gerua, Hajo	7662887386	kanchansaikia@yahoo.com	
19	KVK_Rewa	Dr A K Pandey	Sr Scientist and Head	Rewa	9977879360	kvk_rewa@rediffmail.com	
20	KVK_Ariyalur	Dr.G.Alagukannan	Sr Scientist and Head	Ariyalur	9629246586	kvk.ariyalur@icar.gov.in	
21	CSSSPG College	Dr Surjeet Kumar	Director	Meerut	9412519340	surjeetarun@gmail.com	

22	KVK Alwar	Dr Sushil Kumar Sharma	Principal Scientist and Head	Bansur, Rajasthan	7976966603	kvkbansur@gmail.com	
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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
2024	50	30	20	10		
2025	50	30	20	10		
2026	50	30	20	10		

Data to be provided year-wise for next 3 years

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

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessee d	Certifie d	Placed
	NA												

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. NA
- 2.

Content availability for previous versions of qualifications:

Participant Handbook Facilitator Guide Digital Content Qualification Handbook Any Other:

Languages in which Content is available:

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	Total Marks
AGR/N1249: Identify compatible farm enterprises for integrated farming system	<i>Assess the IFS system requirement</i>	10	5		5	20
	PC1. determine the implementation requirement of IFS					
	PC2. Examine the principles of IFS that are aligned with sustainable agriculture practices					
	PC3. Determine various enterprises that can be a part of a sustainable IFS					
	<i>Assess various IFS systems applicable to the local agro-climatic conditions</i>	10	10		10	30
	PC4. assess the agro-climatic conditions of the region to determine the enterprises that can be integrated into an IFS					
	PC5. Shortlist the appropriate enterprises for IFS based on the local agro-climatic conditions					
	PC6. determine the nature of enterprises considering their interactions and synergies for integration into an IFS					
	TOTAL MARKS	20	15	0	15	50
AGR/N1250: Undertake integration of different enterprises to ensure resource use efficiency in an Integrated Farming System	<i>Plan for distribution of resources across various enterprises</i>	5	5			10
	PC1. Assess the farming systems being adopted in the farm to analyse the need for integrating enterprises					
	PC2. Identify possible integration opportunities and shortlist suitable enterprises					
	PC3. Estimate the type and quantity of resources required for the shortlisted enterprises					
	PC4. identify resources which are easily available on farms/ nearby areas					

PC5. focus on utilizing the resources which are underutilized/not utilized				
PC6. strive to utilize the resources which are overutilized/not utilized in a sustainable fashion				
<i>Allocate resources for the selected enterprises</i>	5	5	5	15
PC7. select different enterprises in a way that maximizes the efficient use of resources and minimizes negative environmental impacts				
PC8. determine the size of enterprises in IFS considering various factors including the available resources				
PC9. allocate resources required for the identified enterprises as per their nature and size				
PC10. Determine combinations of plant and animal species that achieve desired IFS outcomes				
PC11. Identify and compile a list of plants and animals/birds/fish to suit IFS design parameters				
PC12. Assess availability of the identified chosen varieties and breeds				
PC13. Obtain plants, animals, fish, etc for IFS				
<i>Integrate different enterprises as per their interaction and synergies</i>	10	10	5	25
PC14. minimize the waste from various subsystems of the farm by expanding the symbiotic or synergistic systems between livestock, aquaculture, agriculture, and agroindustry, such that the waste of one process becomes the input for other operations				

	PC15. enhance ecological diversity by selecting the appropriate cropping methodology, cropping, intercropping, to reduce competition including mixed crop rotation, and for water, nutrition, and space				
	PC16. use the entire available area effectively and ensure interactions between biotic and abiotic components				
	PC17. Diversify the rural farm to improve the farm household's dietary diversity and achieve sustainable livelihoods and minimize risks				
	PC18. Ensure that the integrated system enhances the benefits of all users of the common property resource				
	PC19. Consider various economic factors to arrive at the most judicious and profitable combination of enterprises				
	PC20. Work out the economics of the proposed integrated farming system				
	TOTAL MARKS	20	20	0	10
AGR/N1251: Implement biosecurity measures	<i>Identify biosecurity threats and determine control measures for site</i>	5	5	5	15
	PC1. Access and interpret site biosecurity plan and information				
	PC2. Identify biosecurity hazards and threats for the site				
	PC3. Identify control measures to minimise the risk of identified biosecurity threats				
	<i>Apply biosecurity control measures to site activities</i>	5	5	5	15
	PC4. Apply control measures identified in site biosecurity plan for all activities according to workplace procedures				
	PC5. Incorporate the site control measures into work routines				
<i>Monitor biosecurity procedures</i>		5	10	5	20

AGR/N1252: Manage an integrated farm production	PC6. Monitor effectiveness of control measures				
	PC7. Monitor work duties of site personnel to ensure biosecurity control measures are applied appropriately				
	PC8. Report issues and concerns for biosecurity to the designated authority				
	PC9. Maintain currency in biosecurity measures applicable to workplace				
	PC10. Record inputs and outputs for traceability of activity according to workplace procedures and legislative requirements				
	TOTAL MARKS	15	20	0	15
	<i>Determine requirements for an integrated farm establishment program</i>	5	5	5	15
	PC1. Develop a crop/produce establishment program according to farm production plan post selecting plant/livestock/poultry/fish, etc varieties best suited to the local agro-climatic conditions and marketing goals				
	PC2. Determine available resources- soil moisture and water requirement for different integrated systems.				
	PC3. Assess available water reserves and develop a water management plan for various components of farm production				
	PC4. Determine crop/livestock/poultry/fish, etc nutrient requirements to achieve required yield according to environmental procedures				
	PC5. Determine appropriate sustainable practices that can be integrated for efficient farm production and continued improvement through introduction of sustainable practices, viz. <i>intercropping, crop rotation, cover crops, agroforestry, fish farming, beekeeping, etc</i>				
	PC6. Assess technology to ensure most efficient performance of operations				
	PC7. Identify and maintain budgetary requirements				
	<i>Implement crop/livestock/poultry/fish, etc maintenance</i>	5	10	5	20
	PC8. Identify health and safety hazards, assess risk and develop and implement controls procedures				

<p>AGR/N1253 – Harvest and market crops/produce in an Integrated Farming system</p>	PC9. Implement strategies to reduce or eradicate pest/weed infestation				
	PC10. Apply nutrients/diets at rates specified in nutrient program				
	PC11. Monitor water requirement and implement water management plan to maintain crop/livestock/poultry/fish, etc				
	PC12. Determine and implement processes to minimise waste and soil degradation according to environmental management policies				
	<i>Monitor crop/livestock/poultry/fish, etc through to harvest/marketing</i>	5	5	5	15
	To be competent, the user/individual on the job must be able to:				
	PC13. Determine trends in weed, pest and disease incidence, on crop and other components and implement control measures				
	PC14. Monitor soil structure and erosion and implement changes to production practices according to production plan				
	PC15. Check and maintain water and drainage systems				
	PC16. Monitor crop/component maturity and undertake harvesting to meet marketing and production targets				
	TOTAL MARKS	15	20	0	15
	<i>Assess crops/produce for harvest</i>	2	2	2	6
	PC1. Identify crops/produce to be harvested according to the harvesting plan				
	PC2. Determine crop/produce maturity				
	PC3. Schedule crop/produce harvesting as per the maturity and the market needs				
	PC4. Ensure conditions are conducive for harvesting operations				
	<i>Prepare equipment for harvesting</i>	2	2	1	5
	PC5. Select tools, equipment and machinery for harvesting operations				

PC6. Carry out pre-operational and safety checks on tools, equipment and machinery according to manufacturer specifications					
PC7. Select, use and maintain personal protective equipment (PPE)					
<i>Harvest and process the crop/produce</i>	4	8		4	16
PC8. Harvest crop/produce safely according to workplace safety procedures					
PC9. Harvest and handle crop/produce to prevent damage and maintain quality					
PC10. Sort and grade crop/produce into containers according to harvesting plan					
PC11. Clean and maintain harvesting tools, equipment and machinery					
PC12. Employ safe manual handling techniques throughout harvesting operations					
PC13. Move and stack containers to minimise damage to crop/produce					
PC14. Maintain temperature of crop/produce according to harvesting plan					
PC15. Transport crop/produce from field to processing or storage area					
PC16. Maintain containers in good working order					
<i>Sell the produce</i>	2	2		2	6
PC17. Identify various types of markets including e-marketing platforms					
PC18. Identify and document potential customer base					
PC19. Evaluate and document selling options					
PC20. Sell the produce to the buyers at a profitable price					
PC21. Identify and comply with market requirements					
<i>Develop and maintain relationship with customers</i>	1	2		2	5
PC22. Investigate characteristics of customers					
PC23. Develop connections with potential customers					
<i>Organise transport of produce to the buyers</i>	2	2		2	6

AGR/N1254: Ensure traceability and sustainability in an integrated farming system	PC24. Identify transport requirements and engage carrier for produce distribution				
	PC25. Schedule transport and delivery of product with the buyer				
	PC26. Identify and comply with buyer's delivery requirements				
	<i>Maintain records</i>	2	2	2	6
	PC27. evaluate actual yield against production targets and determine possible reasons for variance				
	PC28. complete the pre-sale and post-sale documentation				
	PC29. record transactions according to traceability and workplace procedures				
	PC30. Document customer feedback and identify and record potential improvements				
	TOTAL MARKS	15	20	0	15
AGR/N1254: Ensure traceability and sustainability in an integrated farming system	<i>Determine systems for collection and storage of production records</i>	4	2	4	10
	PC1. Determine physical records and inventories required for proper management of the farm				
	PC2. Identify methods for collecting and storing information that allow effective access and analysis				
	PC3. Identify the most appropriate information collection and storage methods according to farm requirements				
	PC4. Identify the most appropriate system for record keeping				
	<i>Collect and maintain production records to ensure traceability</i>	2	2	2	6
	PC5. Collect records as per the farm requirement				
	PC6. Collate and sort records for analysis and decision-making purposes				
	PC7. Save records in a range of formats for future retrieval				
	<i>Examine operations for readily implementable changes to improve sustainability</i>	5	4	3	12
	PC8. Review current practices and identify potential areas across the value chain for improvement				

PC9. Examine processes and/or procedures related to work area or value chain to identify sustainability issues					
PC10. Short-list sustainability issues which may be easily eliminated or improved					
PC11. Estimate positive and negative sustainability impacts arising from readily implementable changes to address short-listed sustainability issues					
PC12. Estimate positive and negative business impacts of readily implementable changes to address short-listed sustainability issues					
PC13. Rank short-listed sustainability issues by estimated sustainability and business benefits and costs					
<i>Implement change</i>	5	3		4	12
PC14. Seek feedback from stakeholders to improve the management of the environment and resource efficiency					
PC15. Develop implementation plan to deliver desired outcomes					
PC16. Use appropriate techniques and tools to achieve efficiencies and sustainability targets					
PC17. Negotiate required resources with stakeholders					
PC18. Bring Innovations in introducing crops, livestock species, and other systems					
PC19. Apply strategies to minimise wastage					
PC20. Apply strategies to minimise environmental risks and impacts					
PC21. discuss measures and indicators of success with the experts					
PC22. Acquire and deploy resources required to achieve agreed outcome					
PC23. Monitor implementation and make required adjustments					
<i>Review change for continuous improvement</i>	4	4		2	10
PC24. Measure immediate impact of change					

DGT/VSQ/N0102: Employability Skills (60 Hours)	PC25. Identify any non-compliances with planned improvements				
	PC26. analyse further actions to achieve desired outcomes, as needed				
	PC27. Record progress against resource efficiency and environmental targets				
	PC28. Discuss the newly introduced changes and related issues with the co-workers and other stakeholders for finding solutions				
	PC29. Stay informed about new biosecurity threats, technologies, and advancements in agricultural practices				
	PC30. Continuously seek and implement improvements in integration efficiency and sustainability				
	TOTAL MARKS	20	15	0	15
	<i>Introduction to Employability Skills</i>	1	1		
	PC1. identify employability skills required for jobs in various industries				
	PC2. identify and explore learning and employability portals				
	<i>Constitutional values – Citizenship</i>	1	1		
	PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.				
	PC4. follow environmentally sustainable practices				
	<i>Becoming a Professional in the 21st Century</i>	2	4		
	PC5. recognize the significance of 21st Century Skills for employment				
	PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life				

<i>Basic English Skills</i>	2	3			
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone					
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English					
PC9. write short messages, notes, letters, e-mails etc. in English					
<i>Career Development & Goal Setting</i>	1	2			
PC10. understand the difference between job and career					
PC11. prepare a career development plan with short- and long-term goals, based on aptitude					
<i>Communication Skills</i>	2	2			
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings					
PC13. work collaboratively with others in a team					
<i>Diversity & Inclusion</i>	1	2			
PC14. communicate and behave appropriately with all genders and PwD					
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act					
<i>Financial and Legal Literacy</i>	2	3			
PC16. select financial institutions, products and services as per requirement					
PC17. carry out offline and online financial transactions, safely and securely					
PC18. identify common components of salary and compute income, expenses, taxes, investments etc.					
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation					
<i>Essential Digital Skills</i>	3	4			
PC20. operate digital devices and carry out basic internet operations securely and safely					

PC21. use e-mail and social media platforms and virtual collaboration tools to work effectively					
PC22. use basic features of word processor, spreadsheets, and presentations					
<i>Entrepreneurship</i>	2	3			
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research					
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion					
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity					
<i>Customer Service</i>	1	2			
PC26. identify different types of customers					
PC27. identify and respond to customer requests and needs in a professional manner.					
PC28. follow appropriate hygiene and grooming standards					
<i>Getting ready for apprenticeship & Jobs</i>	2	3			
PC29. create a professional Curriculum vitae (Résumé)					
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively					
PC31. apply to identified job openings using offline/online methods as per requirement					
PC32. answer questions politely, with clarity and confidence, during recruitment and selection					

	PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements					
	NOS Total	20	30			
	GRAND TOTAL	125	140	0	85	300

Annexure 6: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empanelled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. Multiple Choice Questions : To assess basic knowledge (Objective/Subjective)
2. Viva : To assess awareness on processes (Oral and/or written questioning)
3. Practical : To evaluate skills and identify competencies.(Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real time' internet based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on ground through qualified and ToA certified assessors.

While it is important that an individual has adequate knowledge and skills to perform a specific task, weight age for different aspects for assessment are given as follows:

Multiple Choice Questions: 20%-30%, depending on the specific QP

Viva: 20%

Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)

Assessment will be carried out by certified assessors through empanelled assessment partners. Based on the results of assessment; ASCI will certify the learners/candidates

0. 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.

0. 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.

0. 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

0. *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-Stamp at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Marker Checker concept: 1 person prepares results and other audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All soft copy of documents is received from the on-ground tech team over mail. The same are downloaded by our internal backend team and saved in Repository. The repository consists of scheme wise folders. These scheme wise folders have job role specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in storeroom.
- Result Review & Recheck Mechanism –**
- Time stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidate shall be stored and available for review (retained for 5 years/ till conclusion of project or scheme)

Annexure 7: Acronym and Glossary**Acronym**

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

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