QUALIFICATION FILE

Livestock Green Management Promoter

☒ **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: 5

Submitted By:

Agriculture Skill Council of India

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

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Section 1: Basic Details

1.	**Qualification Name**	Livestock Green Management Promoter
2.	**Sector/s**	Agriculture

3.	**Type of Qualification:** ☐New ☐ Revised ☐ Has Electives/Options ☐OEM	**NQR Code & version of existing/previous qualification:** *(change to previous, once approved)* NA	**Qualification Name of existing/previous version:** NA

4.	a. **OEM Name** b. **Qualification Name** *(Wherever applicable)*	NA

5.	**National Qualification Register (NQR) Code &Version** *(Will be issued after NSQC approval)*	**QG-05-AG-02427-2024-V1-ASCI**	6. **NCrF/NSQF Level:** *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 individual is responsible for disseminating livestock management practices focused on green management techniques that reduce GHG emissions. It involves analysing various resource use of livestock and planning for their efficient use for GHGs reduction. This may also include increasing soil carbon sequestration through improved grazing management and fodder cultivation practices; and by adopting energy-efficient equipment and renewable energy to reduce and displace fossil fuel use.
9.	**Eligibility Criteria for Entry for Student/Trainee/Learner/Employee**	a. **Entry Qualification & Relevant Experience:**

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1	UG Diploma or equivalent* OR Completed 2nd year of 2-year diploma* after 12th	
2	UG certificate*	1.5-year experience in Agriculture and allied sectors
3	12th Grade Pass	3-years experience in Agriculture and allied sectors

4	Previous relevant Qualification of NSQF Level 4.5	1.5-year experience in Agriculture and allied sectors
6	Previous relevant Qualification of NSQF Level 4	3-years experience in Agriculture and allied sectors
	Veterinary Sciences/Animal Husbandry/Diary Technology	

b. Age: NA

10.	**Credits Assigned to this Qualification, Subject to Assessment** *(as per National Credit Framework (NCrF))*	16		**11. Common Cost Norm Category (I/II/III)** *(wherever applicable)*: II

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

Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)
Classroom (offline)	210	150	120		480
Online					

(Refer Blended Learning Annexure for details)

14.	**Aligned to NCO/ISCO Code/s** *(if no code is available mention the same)*	NCO-2015/6116 (Agriculture information management)
15.	**Progression path after attaining the qualification** *(Please show Professional and Academic progression)*	Livestock Farm Green Management Promoter (L5), Livestock Farm Advisor (L6)
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: *LV*
19.	**How Participation of Women will be Encouraged**	**Endeavour to include women in batches**
20.	**Are Greening/ Environment Sustainability Aspects Covered** *(Specify the NOS/Module which covers it)*	☒ Yes ☐ No

		(Covered in DGT/VSQ/N0103)
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: 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

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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.	Develop sustainable agricultural practices that are readily implementable and utilise renewable energy and recycling systems	AGR/N4824 (v1.0)	Core	5	3	50	40			90	18	18		14	50	25
2.	Plan for sustainable livestock production	AGR/N4825 (v1.0)	Core	5	1	10	20			30	16	18		16	50	20
3.	Facilitate sustainable livestock production	AGR/N4826 (v1.0)	Core	5	2	20	40			60	16	18		16	50	30
4.	Advise farmers/customers on livestock products	AGR/N4827 (v1.0)	Core	5	1	10	20			30	14	26		10	50	10
5.	Assess and document carbon footprint	AGR/N4828 (v1.0)	Core	5	2	30	30			60	16	20		14	50	10
6.	Employability Skills (90 Hours)	DGT/VSQ/N 0103 (v1.0)	Non-Core	5	3	90				90	20	30			50	5
7	OJT (Mand.)				4			120		120						
Duration (in Hours) / Total Marks					16	**210**	**150**	**120**		**480**	**100**	**130**		**70**	**300**	**100**

Assessment - Minimum Qualifying Percentage

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

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

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

Section 3: Training Related

1.	**Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Diploma in Agriculture and Animal Husbandry / Animal Husbandry and Veterinary Science / Animal sciences/ Animal production and management with 5 years of relevant training or industry experience in livestock production and management OR Graduate in Animal husbandry/ and dairying / Veterinary Science/Agriculture and equivalent with 3 years of relevant training or industry experience in livestock production and management OR M.Sc. in livestock production and management with 1 year of relevant training or industry experience in livestock production and management
2.	**Master Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	5 years training experience in livestock production and management after Graduation in Animal husbandry/ and dairying / Veterinary Science/Agriculture and equivalent and 3 years of relevant industry experience in livestock production and management OR 5 years training experience in livestock production and management after M.Sc. in Animal Husbandry and Veterinary Science / Animal sciences ,livestock production and management and 1 year relevant industry experience in livestock production and management
3.	**Tools and Equipment Required for Training**	☑Yes ☐No *(If "Yes", details to be provided in Annexure)*
4.	**In Case of Revised Qualification, Details of Any Upskilling Required for Trainer**	NA

Section 4: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Graduate in Animal husbandry/ and dairying / Veterinary Science/Agriculture and equivalent with 3 years of relevant experience in livestock production and management OR M.Sc. in livestock production and management with 2 years of relevant experience in livestock production and management OR PhD in Various specializations of Animal Husbandry and Veterinary sciences
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)*	M.Sc. in livestock production and management with 10 years of relevant experience in livestock production and management
4.	**Assessment Mode** *(Specify the assessment mode)*	**Offline**
5.	**Tools and Equipment Required for Assessment**	☐ Same as for training ☑ Yes ☐ No *(details to be provided in Annexure-if it is different for Assessment)*

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:** *Yes, received concurrence from Department of Animal Husbandry & Dairying*

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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)*	*Included as Annexure 1*
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	*Included as Annexure 2*
3.	**Annexure:** Detailed Assessment Criteria *(Mandatory)*	*Included as Annexure 5*
4.	**Annexure:** Assessment Strategy *(Mandatory)*	*Included as Annexure 6*
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)*	*Included as Annexure 8*
9.	**Supporting Document:** Career Progression *(Mandatory - Public view)*	*Included as Annexure 9*
10.	**Supporting Document:** Occupational Map *(Mandatory)*	*Included as Annexure 10*
11.	**Supporting Document:** Assessment SOP *(Mandatory)*	*Included as Annexure 11*
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 the effect of greenhouse gas emissions on the environment, current and emerging approaches to improving sustainability in livestock farming, principles of sustainability associated with using of renewable energy and recycling systems.	Possesses broad and deep knowledge and skills to solve problems in specialized fields.	5
Professional and Technical Skills/ Expertise/ Professional Knowledge	The individual is able to	Range of skills along with specialized domain skills	5

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	- Develop sustainable agricultural practices that are readily implementable and utilise renewable energy and recycling systems - Plan for sustainable livestock production - Facilitate sustainable livestock production - Provide advice on livestock products - Measure and report carbon footprint		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	The individual is able to use interpersonal skills to engage with farmers/customer and identify their needs. The individual is able to write report and communicate with stakeholders. The individual is able to research and update knowledge and understanding of livestock products and related products from various sources and subsequently advice farmers on sustainable livestock practices and products.	A versatile professional with excellent communication, digital and financial literacy, self-management and may have entrepreneurial mindset.	5
Broad Learning Outcomes/Core Skill	The individual is able to provide advice to farmers and address their concerns and questions and suggest alternative solutions or additional products to meet requirements for recommended livestock products.	Possess technical expertise, adept at solving complex problems and improving output.	5
Responsibility	The individual is able to recommend strategies for reducing carbon footprint and report carbon footprint	Responsible for achieving tangible outcomes, managing change, building teams, and mentoring the workforce.	5

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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	Plastic sheets for covering silos	Nos	1
2	Silo drums or plastic bags of 20-25 kg silage capacity	Nos	1 of 20 L
3	Fermentable substrate		as required
4	Jowar or other suitable green fodder in flowering stage for silage making	kg	40
5	Compounded feed normal and organic (labelled with standards)	5 kg	1 each unit
6	Dry fodder	kg	5-10
7	Green fodder (Oats, Berseem, Jowar, Stylo, etc.)	kg	15-20 kg
8	Concentrate feed	kg	5
9	Mineral mixture	kg	0.5
10	Face masks	Nos	20-30
11	Gumboots/safety shoes	Nos	5
12	Rubber gloves	Nos	5
13	Goggles for eye safety	Nos	5
14	Strip cup	Nos	1
15	Milk strainer	Nos	1
16	Milk container	Nos	1
17	Ear Tags	Nos	5
18	Digital Thermometer	Nos	1
19	Vaccinator / needles	Nos	1
20	Vaccines	Nos	2 varieties
21	Animal Medicine Kit/first aid kit	Nos	1
22	Fresh towels	Nos	4
23	Chlorine solution	ml	500
24	Grooming brush	Nos	2
25	Casting Ropes (10-15 Meter)	Nos	4
26	Test Tubes for Milk Sampling	Nos	4
27	Permanent Markers	Nos	4
28	Digging tools (Fawada, Khurpi)	Nos	4
29	Antibacterial Soaps	Nos	2
30	Scissors (Big/Small)	Nos	2

31	Potassium Parmanganate sol	ml	200

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 (RPCAU), Pusa, Samastipur, Bihar	Dr. Mohit Sharma	Asst. Scientist & Dy. Registrar	School of Agri-Business & Rural Management (SAB&RM), RPCAU, Pusa, Samastipur, Bihar, 848125	9549034035	mohit.sharma@rpcau.ac.in	
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	

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	Assessed	Certified	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.

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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
AGR/N4824: Develop sustainable agricultural practices that are readily implementable and utilise renewable energy and recycling systems	*Examine operations for readily implementable changes to improve sustainability*	4	4		2
	PC1. Examine processes and/or procedures related to the work area or value chain to identify sustainability issues				
	PC2. Short-list sustainability issues which may be easily eliminated or improved				
	PC3. Estimate positive and negative sustainability impacts arising from readily implementable changes to address short-listed sustainability issues				
	PC4. Estimate positive and negative business impacts of readily implementable changes to address short-listed sustainability issues				
	PC5. Rank short-listed sustainability issues by estimated sustainability and business benefits and costs				
	PC6. Develop implementation and monitoring plan to deliver desired outcomes				
	Identify opportunities to use renewable energy	4	2		4

	PC7. Identify areas of enterprise where renewable energy, recycling products or improving work practices could be utilised to reduce greenhouse gas emissions				
	PC8. Identify available government subsidies for the implementation of strategies using renewable energy or recycling and potential cost savings to the business in the longer term				
	PC9. Identify the specified standards of quality, licensing, regulatory requirements, technology service providers, government legislation and safety issues for the introduction of any renewable energy resources and recycled products				
	PC10. Identify potential income generated by on selling energy excesses or recycled products				
	PC11. Measure improvement outcomes from the introduction of renewable energy sources and recycling products in relation to achieving greater sustainability				
	PC12. Conduct risk assessment for work health and safety hazards associated with renewable energy and recycling initiatives				
	Develop strategies to use renewable energy	4	4		2
	PC13. Develop strategies to reduce greenhouse gas emissions and use sustainable practices, renewable energy resources, recycled products and improved work practices				
	PC14. Estimate plant, material, labour and other associated costs in consultation with appropriate person or organisation				

	PC15.　Develop a budget for estimated plant, material, labour and other associated costs				
	PC16.　Develop work plan for the introduction of sustainable practices, renewable energy resources and recycled products				
	PC17.　Develop work health and safety risk control measures and establish procedures				
	Implement strategies to use renewable energy	4	4		2
	PC18.　Implement and monitor the plan for renewable energy and recycling products to ensure on time supply of plant and materials				
	PC19.　Monitor the progress of strategies to reduce greenhouse gas emissions and recycling against schedule, quality requirements and budget				
	PC20.　Monitor work health and safety risk control measures and procedures and implement changes				
	PC21.　Evaluate the improvement outcomes and document appropriate corrective actions				
	PC22.　Oversee and assist with implementation of improvements				
	PC23.　Facilitate processes with stakeholders and, if needed, specialists to resolve problems				
	PC24.　Provide guidance and assistance to others to champion circularity and build capacity				
	PC25.　Monitor implementation metrics and take action to adjust implementation, as required, in response to issues				
	Finalise improvements	2	4		4

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	PC26. Evaluate metrics and feedback from stakeholders to determine effectiveness of changes				
	PC27. Determine and oversee amendments needed to achieve desired outcomes				
	PC28. Oversee updates to systems, procedures and related documentation to support sustaining of successful improvements				
	PC29. Oversee development and dissemination of communications to support sustaining of successful improvements				
	TOTAL MARKS	**18**	**18**	**0**	**14**
AGR/N4825: Plan for sustainable livestock production	*Plan for production*	6	4		2
	PC1. Assess the capability of land resources for grazing and determine stock, pasture and land management strategies for each land capability class				
	PC2. Assess the suitability and sustainability of water resources				
	PC3. Establish livestock production targets for each enterprise for the short and long term according to the farms marketing and business plans				
	PC4. Establish production targets, taking into consideration enterprise short and long term livestock production goals, herd/flock breeding improvements and relevant risk control strategies				
	PC5. Select genetics and breeding programs based on the production targets and the marketing requirements for the enterprise				

	PC6. Select and design production facilities in a way that deals sensitively with identified waste products				
	PC7. Establish and specifically include environmental controls in the production plan				
	PC8. Identify work health and safety hazards, assess risks and incorporate suitable controls into the production plan				
	PC9. Prepare a plan that documents the decisions taken, the assessments made, the targets established, and any specific issues that relate to work health and safety, animal welfare, biosecurity and environmental risks				
	PC10. Ensure plan includes the type, format, frequency and detail of any reporting required by both manager(s) and operators				
	Plan for livestock needs	2	4		4
	PC11. Determine feed requirements for each age/sex category of herds and/or flocks				
	PC12. Determine most appropriate feeding plan for each livestock category based on a cost benefit analysis				
	PC13. Research and implement most appropriate health strategies to prevent and control disease in each herd and/or flock on the basis of a cost benefit analysis				
	PC14. Prepare schedules for purchasing and using the products and services used in livestock production				

	PC15. Research and implement most appropriate livestock production, harvesting, handling and transportation methods and animal welfare requirements from a cost benefit analysis				
	PC16. Prepare a livestock production plan that incorporates the calendar of operations for each enterprise production cycle, and the management of any specific animal welfare issues				
	PC17. Ensure plan includes the type, format, frequency and detail of any reporting required by both manager(s) and operators				
	Seek information on innovations for existing or potential enterprises and farm activities	2	2		2
	PC18. Identify and access sources of information on innovations relevant to the enterprise and livestock species				
	PC19. Assess information on innovations to determine whether or not such innovations could be used in the present enterprise, or in a potential future enterprise in a sustainable way				
	PC20. Amend prepared production plans to include innovations deemed suitable for use in the enterprise				
	Test and adopt relevant innovations	2	2		2
	PC21. Consult any people who may be involved in implementing the innovation or in planning for it and discuss the change with them				
	PC22. Test innovations on the farm to determine whether or not they are suitable, and whether they may be readily adapted to suit the circumstances of the business				

	PC23. Identify any work health and safety hazards, animal welfare, biosecurity or environmental risks that present during the trial phase, assess them and take responsible action				
	PC24. Make a decision about whether or not to adopt the innovation, based on its costs and benefits and any implementation issues, including work health and safety, animal welfare, biosecurity and environmental considerations				
	Implement, monitor and evaluate livestock production plans	2	4		4
	PC25. Implement and monitor production plans according to the calendar of operations				
	PC26. Site, erect or install production facilities in a way that deals sensitively with identified waste products				
	PC27. Evaluate livestock growth/maturity or production according to the planned targets and the marketing requirements				
	PC28. Monitor flock/herd health, and control and prevent parasite and disease outbreaks quickly and effectively				
	PC29. Assess feed supplies, monitor pasture or landscape condition and species composition, and vary stocking rates to maintain optimum pasture and livestock health				
	PC30. Identify, monitor and manage work health and safety hazards, animal welfare, biosecurity or environmental impacts relating to livestock production in the business to promote optimum pasture, livestock, and employee health				

	PC31. Analyse physical and financial records and extractions taken from them to assess production performance, and to provide information for business and taxation purposes				
	PC32. Evaluate the production performance of each enterprise to determine whether or not they are sustainable and profitable, and to use in reviewing and revising production plans				
	Comply with legal requirements and regulations	2	2		2
	PC33. Obtain information about the legal requirements and regulations that affect farm land ownership/possession and livestock production				
	PC34. Determine record keeping requirements, and put in place procedures to ensure compliance with the range of applicable regulations including taxation legislation				
	PC35. Obtain permits from the relevant authorities for the transport and movement of livestock and equipment				
	TOTAL MARKS	**16**	**18**		**16**
AGR/N4826: Facilitate sustainable livestock production	*Prepare to manage animal health and welfare*	4	2		2
	PC1. Investigate and consider natural behaviours, requirements and welfare of animals when planning for sustainable livestock production				
	PC2. Identify production requirements and environment of farm				
	PC3. Identify and select genetic varieties of animals best suited to production requirements and environment				
	PC4. Develop animal health management strategies for farm				

	Facilitate animal health and welfare	2	4		2
	PC5. Communicate and implement animal health management strategy to the farmers				
	PC6. Monitor livestock for health and welfare				
	PC7. Assist livestock management according to the organic standards and biosecurity procedures				
	PC8. Ensure animal husbandry and transport according to animal welfare principles				
	PC9. Maintain livestock records required for sustainable productions				
	Develop and implement supplementary feed requirements	4	4		2
	PC10. Identify feed gaps and requirements for supplementary feed, taking into account seasonal conditions and drought				
	PC11. Incorporate on-farm supplementary feed strategies, including fodder crops, agroforestry or standing hay paddocks, into the annual program for animal feed and on-farm sustainability				
	PC12. Implement good storage practices for feed inputs to ensure quality is maintained				
	PC13. Purchase and use nutritional inputs in the feed program that meet relevant standards and/or agro-ecological principles where applicable				
	Develop a sustainable grazing strategy	2	2		2
	To be competent, the user/individual on the job must be able to:				
	PC14. Determine feed requirements, carrying capacity and stocking rate for farm according to seasonal variability, livestock needs and sustainability requirements				

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	PC15. Determine indicators and benchmarks for sustainable pasture, land and soil use for farm				
	PC16. Identify grazing infrastructure required according to planned grazing outcomes				
	PC17. Incorporate infrastructure requirements into farm improvement program				
	PC18. Develop a planned grazing system according to optimal livestock health, productivity and grazing requirements				
	Implement a sustainable grazing strategy	2	2		4
	PC19. Optimise soil and plant health to provide a nutrient-dense and balanced diet for livestock				
	PC20. Implement and monitor grazing system to ensure productivity and sustainability				
	PC21. Implement strategies for controlling weeds in pastures according to Organic Standards and agro-ecological principles				
	PC22. Maintain records of grazing activity according to workplace procedures and Organic Standards				
	Supervise farm fertility for the livestock enterprise	2	4		4
	PC23. Estimate level of nutrients exported from farm				
	PC24. Implement soil fertility monitoring program				
	PC25. Manage soil nutrient levels and balance according to Organic Standards and agro-ecological principles				
	PC26. Eliminate risk of weed and chemical contamination of farm according to Organic Standards and agro-ecological principles				
	PC27. Maintain records of soil fertility according to workplace procedures and Organic Standards				

	TOTAL MARKS	**16**	**18**	**0**	**16**
AGR/N4827: Advise farmers/customers on livestock products	*Establish customer needs*	5	10		5
	PC1. Use interpersonal skills to engage with farmers/customer and identify their needs				
	PC2. Handle farmers/customer enquiries courteously and promptly according to workplace procedures and legislative requirements				
	PC3. Identify available products suitable to farmers/customer needs and ecological considerations				
	Research and provide product advice	9	16		5
	PC4. Research and update knowledge and understanding of livestock products and related products from authoritative sources				
	PC5. Research local workplace and district requirements for livestock and related products				
	PC6. Disseminate information on relevant Government schemes pertaining to livestock and their productivity enhancement				
	PC7. Provide advice to customer in a timely and professional manner according to workplace procedures and legislative requirements				
	PC8. Exhibit or demonstrate products safely to customer according to workplace procedures, workplace health and safety requirements and legislative requirements				
	PC9. Address customer concerns and questions and suggest alternative or additional products to meet requirements for recommended products				
	TOTAL MARKS	**14**	**26**	**0**	**10**
AGR/N4828: Assess and document carbon footprint	*Map carbon sources and sinks along the value chain*	4	4		2

	PC1. Select portion of value chain for analysis				
	PC2. Identify process steps along portion of value chain				
	PC3. Identify carbon-related change which occurs at each step				
	Determine nature and source for carbon emissions	4	4		2
	PC4. Determine carbon emissions from each step				
	PC5. Determine source of each emission				
	PC6. Identify measurements available for each emission and each source				
	Quantify carbon	2	4		4
	PC7. Quantify each emission				
	PC8. Determine CO2 equivalent tonnes for each emission				
	PC9. Determine total carbon embodied in process, product or service				
	Recommend strategies for reducing carbon footprint	4	4		2
	PC10. Short-list high carbon sources				
	PC11. Determine root cause of emissions				
	PC12. Identify relevant carbon sinks				
	PC13. Investigate methods for reducing emissions				
	PC14. Prepare recommendation for improvement				
	Report carbon footprint	2	4		4
	PC15. Identify purpose of report and key stakeholders				
	PC16. Compile data, implications and recommendations				
	PC17. Write report and communicate with stakeholders				
	TOTAL MARKS	**16**	**20**	**0**	**14**
	Introduction to Employability Skills	1	1		

	PC1. understand the significance of employability skills in meeting the current job market requirement and future of work				
	PC2. identify and explore learning and employability relevant portals				
	PC3. research about the different industries, job market trends, latest skills required and the available opportunities				
	Constitutional values – Citizenship	1	1		
	PC4. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.				
	PC5. follow environmentally sustainable practices	-	-		
	Becoming a Professional in the 21st Century	1	3		
	PC6. recognize the significance of 21st Century Skills for employment				
DGT/VSQ/N0103: Employability Skills (90 Hours)	**PC7.** 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				
	PC8. adopt a continuous learning mindset for personal and professional development				
	Basic English Skills	3	4		
	PC9. use basic English for everyday conversation in different contexts, in person and over the telephone				
	PC10. read and understand routine information, notes, instructions, mails, letters etc. written in English				
	PC11. write short messages, notes, letters, e-mails etc. in English				
	Career Development & Goal Setting	1	2		
	PC12. identify career goals based on the skills, interests, knowledge, and personal attributes				
	PC13. prepare a career development plan with short- and long-term goals				
	Communication Skills	2	2		
	PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings				
	PC15. use active listening techniques for effective communication				

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	PC16. communicate in writing using appropriate style and format based on formal or informal requirements				
	PC17. work collaboratively with others in a team				
	Diversity & Inclusion	1	1		
	PC18. communicate and behave appropriately with all genders and PwD				
	PC19. escalate any issues related to sexual harassment at workplace according to POSH Act				
	Financial and Legal Literacy	2	3		
	PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.				
	PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook				
	PC22. identify common components of salary and compute income, expenses, taxes, investments etc				
	PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation				
	Essential Digital Skills	3	5		
	PC24. operate digital devices and use their features and applications securely and safely				
	PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.				
	PC26. display responsible online behaviour while using various social media platforms				
	PC27. create a personal email account, send and process received messages as per requirement				
	PC28. carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications				
	PC29. utilize virtual collaboration tools to work effectively				
	Entrepreneurship	2	3		
	PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research				

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	PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion				
	PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity				
	Customer Service	1	2		
	PC33. identify different types of customers and ways to communicate with them				
	PC34. identify and respond to customer requests and needs in a professional manner				
	PC35. use appropriate tools to collect customer feedback				
	PC36. follow appropriate hygiene and grooming standards				
	Getting ready for apprenticeship & Jobs	2	3		
	PC37. create a professional Curriculum vitae (Résumé)				
	PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively				
	PC39. apply to identified job openings using offline/ /online methods as per requirement				
	PC40. answer questions politely, with clarity and confidence, during recruitment and selection				
	PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements				
	TOTAL MARKS	20	30		
	GRAND TOTAL	100	130		70

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

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.

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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***

- <u>Morning Check (Pre-Assessment)</u>: Backend team of AA calls and confirms assessor/technical spoc event status. Assessor/Technical spoc are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.
- <u>Video Calls</u>: Random video calls are made to the technical spoc/assessor so as to keep check on assessment quality and ensure assessment is carried out in fair and transparent manner
- <u>Aadhar verification</u> of candidates
- <u>Evening Check (Post Assessment)</u>: 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.
- <u>TP Calling</u>: To keep check on malpractice activity, independent audit team calls to TP on recorded line to take confirmation if there was any malpractice activity observed in assessment on part of AA/SSC team. If calls are not connected, email is send to TP Spoc for taking their confirmation
- <u>Video and Picture Evidence:</u> Backend team collects video and pictures for assessment on real time basis and highlights any issue like, Students sitting idle/trainer allowed for helping out candidates during assessment.
- <u>Surprise Visit:</u> Time to time SSC/AA Audit team can visit the assessment location and do surprise audit for assessment process carried out by ground team.
- <u>Geo Tagging:</u> On day of assessment, each technical spoc is required to login in our internal app which is Geo tagged. Any deviation with centre address needs to be highlighted to assessment team on real-time basis.

Method for assessment documentation, archiving, and Access:
- ASCI has fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks forms the basis of the results and encrypted files generated to avoid data manipulation. All responses captured and stored in System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Maker Checker concept: 1 person prepares results and other audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All soft copy of documents is received from the on-ground tech team over mail. The same are downloaded by our internal backend team and saved in Repository. The repository consists of scheme wise folders. These scheme wise folders have job role specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in storeroom.
- **Result Review & Recheck Mechanism –**
- Time stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidate shall be stored and available for review (retained for 5 years/ till conclusion of project or scheme)

Annexure 7: Acronym and Glossary

Acronym

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

Glossary

Term	Description
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