



QUALIFICATION FILE

Quality Seed Grower

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

Upskilling Dual/Flexi Qualification For ToT For ToA

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

NCrF/NSQF Level: 4

Submitted By:

Agriculture Skill Council of India

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

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Section 1: Basic Details

1.	Qualification Name	Quality Seed Grower																
2.	Sector/s	Agriculture																
3.	Type of Qualification: <input type="checkbox"/> New <input checked="" type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing qualification: QG-04-AG-00284-2023-V1.1-ASCI & Version 1.1	Qualification Name of existing/previous version: Quality Seed Grower															
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-04-AG-03564-2025-V2-ASCI & Version 2.0	6. NCrf/NSQF Level: 4															
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																
8.	Brief Description of the Qualification	A Quality Seed Grower produces a variety of high-quality seed crops under the supervision of a field supervisor from the seed production company. The person is responsible for preparing the field, sowing, maintaining, harvesting and performing post-harvest processing of the foundation and certified seeds as per the instructions of the seed production company.																
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12th or equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>10th Class Pass</td> <td>3 years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>3</td> <td>Previous NSQF Level 3.5</td> <td>1.5 years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>4</td> <td>Previous NSQF Level 3.0</td> <td>3 years of relevant experience in Agriculture and allied sectors</td> </tr> </tbody> </table> b. Age: NA		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12th or equivalent		2	10 th Class Pass	3 years of relevant experience in Agriculture and allied sectors	3	Previous NSQF Level 3.5	1.5 years of relevant experience in Agriculture and allied sectors	4	Previous NSQF Level 3.0	3 years of relevant experience in Agriculture and allied sectors
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4	Previous NSQF Level 3.0	3 years of relevant experience in Agriculture and allied sectors																
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	13	11. Common Cost Norm Category (I/II/III) (wherever applicable): II															

12.	Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	NA																						
13.	Training Duration by Modes of Training Delivery <i>(Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</i>	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>180</td> <td>150</td> <td>60</td> <td></td> <td>390</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><i>(Refer Blended Learning Annexure for details)</i></p>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	180	150	60		390	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	180	150	60		390																			
Online																								
14.	Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO-2015/6130.0201																						
15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Quality Seed Grower (L4), Seed Analysis-In charge (L5)																						
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																						
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:																						
18.	Is the Job Role Amenable to Persons with Disability	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", specify applicable type of Disability: SHI																						
19.	How Participation of Women will be Encouraged	Batches specific to women will be formed																						
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No DGT/VSQ/N0102 (v1.0)																						
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																						
22.	Name and Contact Details of Submitting / Awarding Body SPOC <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Ms Purnambica.K Email: standards@asci-india.com Website: www.asci-india.com Contact No.: 0124-4670029																						
23.	Final Approval Date by NSQC: 18-02-2025	24. Validity Duration: 3 years post NSQC Approval			25. Next Review Date: 18-02-2028																			

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

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

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Prepare for growing the seeds	AGR/N7102 (v3.0)	Core	4	2	30	30			60	30	40		30	100	30
2	Sow the seeds and maintain the seed crop	AGR/N7103 (v3.0)	Core	4	2	30	30			60	30	40		30	100	25
3	Perform harvesting and post-harvest processing of the seed crop	AGR/N7104 (v3.0)	Core	4	3	30	60			90	30	40		30	100	25
4	Undertake basic entrepreneurial activities for small Enterprise	AGR/N9908 (v3.0)	Non-Core	4	1	15	15			30	30	40		30	100	5
5	Maintain health and safety at the workplace	AGR/N9903 (v4.0)	Non-Core	4	1	15	15			30	40	25		35	100	10
6	Employability Skills (60 Hours)	DGT/VSQ/N0102 (v1.0)	Non-Core	4	2	60				60	20	30		0	50	5
7	OJT				2			60		60						
Duration (in Hours) / Total Marks						13	180	150	60	390	180	215		155	550	100

Assessment - Minimum Qualifying Percentage

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

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

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

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma (Agriculture/ Seed Technology) with 5 years of relevant industry experience in Seed Production and Processing OR Graduate with 3 years of relevant industry experience in Seed Production and Processing* * For the school Program minimum qualification of the Trainer should be Graduate. Their Teaching experience will be considered industry experience OR Graduate (Agriculture/ Horticulture/ Botany/ Biotechnology/ Seed Technology) with 2 years of relevant industry experience in Seed Production and Processing OR Post Graduate (Agriculture/ Seed technology/ Genetics and Plant breeding/ Plant Biotechnology)
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	5 years of training experience in Seed Production and Processing after Graduation with 3 years of relevant industry experience in Seed Production and Processing OR 5 years of training experience in Seed Production and Processing after Graduation (Agriculture/ Horticulture/ Botany/ Biotechnology/ Seed Technology) with 2 years of relevant industry experience in Seed Production and Processing OR 5 years of training experience in Seed Production and Processing after Post Graduation (Agriculture/ Seed technology/ Genetics and Plant breeding/ Plant Biotechnology)
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)	Graduation (Agriculture/ Agronomy/ Horticulture and related streams) with 5 years of relevant industry experience in Quality Seed production and related experience OR Post- graduation (Agriculture/ Agronomy/ Seed Science & Technology/ Horticulture and related streams) with 2 years of relevant industry experience in Quality Seed production and related experience OR PhD (Agriculture/ Agronomy/ Seed Science & Technology/ Horticulture and related streams) with 1 years of relevant industry experience in Quality Seed production and related experience
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)	Post- graduation (Agriculture/ Agronomy/ Seed Science & Technology/ Horticulture and related streams) with 10 years of relevant industry experience in Quality Seed production and related experience
4.	Assessment Mode (Specify the assessment mode)	Offline
5.	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): No
3.	Government /Industry initiatives/ requirement (Yes/No): NA
4.	Number of Industry validation provided: 10
5.	Estimated nos. of persons to be trained and employed: 2000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Awaited from Department of Agriculture and Farmers Welfare, Ministry of Agriculture & Farmers Welfare

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)	Annexure-1
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Annexure-2
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Annexure-5
4.	Annexure: Assessment Strategy (Mandatory)	Annexure-6
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery 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)	Annexure-7
9.	Supporting Document: Career Progression (Mandatory - Public view)	Quality Seed Grower (L4), Seed Analysis incharge (L5)
10.	Supporting Document: Occupational Map (Mandatory)	Annexure-8
11.	Supporting Document: Assessment SOP (Mandatory)	Annexure-9
12.	Any other document you wish to submit:	

Annexure 1: Evidence of Level

NCrf/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrf/NSQF level descriptor	NCrf/NSQF Level
Professional Theoretical Knowledge/Process	<ul style="list-style-type: none"> Select a field for growing seeds Prepare the field for growing seeds Procure, test and store the seeds 	A Quality Seed Grower produces a variety of high-quality seed crops under the supervision of a field supervisor from the seed production company. The person is responsible for preparing the field, sowing, maintaining, harvesting and	4

	<ul style="list-style-type: none"> • Sow the seeds • Harvest the crop • Pack and store the seeds 	performing post-harvest processing of the breeder, foundation and certified seeds as per the instructions of the seed production company.	
Professional and Technical Skills/ Expertise/ Professional Knowledge	<ul style="list-style-type: none"> • Plan the seed sowing • Effective communication at the workplace • Mentor apprentice • Administer appropriate emergency procedures • Practice inclusion at the workplace 	The job holder is expected to have knowledge of types of raw seeds and their purity level, types of machineries used for producing seeds, selecting a field for seed production as per the instructions provided, knowledge about applying necessary treatment to enhance and maintain the soil fertility, knowledge of necessary use of fertilizers/ weedicides/ pesticides/ insecticides as per the instructions.	4
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	<ul style="list-style-type: none"> • Optimise resource utilisation • Perform waste management • Maintain personal hygiene • Maintain clean and safe workplace • Effective communication at the workplace 	The job holder is expected to possess skills required to check production of seeds, quantities, specifications of seeds, carrying out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor, optimising the usage of resources provided to the utmost, method application to select manual or mechanical harvesting method according to the type and quantity of seed crop and field, co-ordinating with the field supervisor to identify and remove the crop plants with undesirable characteristics to maintain the genetic purity.	4
Broad Learning Outcomes/Core Skill	<ul style="list-style-type: none"> • Maintain healthy growth of the seed crop • Identify and remove the weeds • Control pests and disease • Transport the seeds to the seed processing plant 	The job holder is expected to possess needs to grow seed crop and includes activities such as selecting and preparing the field, arranging the required resources and planning seed sowing, harvesting the seed crop and performing postharvest processing before sending the seeds to the seed processing plant	4
Responsibility	<ul style="list-style-type: none"> • The user/individual must know and understand how to identify the different types of seed preparing the field, sowing, maintaining, harvesting and performing post-harvest processing of the breeder 	A Quality Seed Grower is responsible for producing a variety of high-quality seed crops under the supervision of a field supervisor from the seed production company. The person is responsible for preparing the field, sowing, maintaining, harvesting and performing postharvest processing of the	4

	<ul style="list-style-type: none"> • Prepare the field for growing seeds • Plan the seed sowing 	breeder, foundation and certified seeds as per the instructions of the seed production company.	
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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	Pesticide- Any	Litres	1
2	Fertilizers	Bag	1
3	Biofertilizers	Kg	2
4	NPK	Kg	10
5	Fawda	Nos	1
6	Khurpi	Nos	6
7	Soil Testing Kit	Nos	1
8	Irrigation Equipments (Any Sprinkler or Drip)	Nos	1
9	Video Recording Equipment	Nos	1
10	Compost/Organic Manure	Kg	10
11	Zinc	Kg	1
12	Land Leveller	Nos	1
13	Knapsack Sprayer	Nos	1
14	Face Masks	Nos	30
15	Cotton Bags	Nos	2
16	Seeds of different Crops	kg	1
17	Rubber gloves	Nos	30
18	Gumboots	Nos	5

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Markers

Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1.	KVK Changlang	Dr. D S Chhonkar	Head				
2.	KVK Amravati II	Dr. K P Singh	Head				
3	KVK Kendrapara	Dr Aurobind Das	Head	Kendrapara, Odisha	8899517939	kvk.kendrapara@ouat.nic.in	
4	KVK Mayurbhanj1	Dr Sanghamitra Pattnaik	Head	Baripada, Mayurbhanj, Odisha	9437147934		
5	TRCSC	Sri Manas Das	Secretary	Jamshedpur, JH	9523248178	trcsc_jsr@yahoo.com	
6	ICARDA	Dr Kishor Behera	State Incharge-Odisha	Bhuabneswar	9937086658	kishor.behera3372@gmail.com	
7	RRTTS(OUAT)- Koraput	Dr Srimant Sahoo	Offcier incharge-AICCP	Koraput	9437960870	srim.ouat@gmail.com	
8	KVK Kupwara	Kaiser M Malik	Head	KVK Kupwara, Kashmir	9906491753	pc.kvk.kupwara@gmail.com	
9	Ananya Seeds	Dr. Laksmikant Pandey	CEO	Ananya Seeds Pvt Ltd, New Delhi	9811159584	lkpande@gmail.com	
10	KVK BALOD	Dr. K.R Shu	Senior Scientist and Head	Balod	9424281253	kvk.balod@igkv.ac.in	

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025-26	500	50	100	10		
2026-27	500	50	100	10		
2027-28	1000	100	200	20		

Data to be provided year-wise for next 3 years

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

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
3.0	2022-23	259	180	180	80	173	109	109	54	0	0	0	0
3.0	2023-24	70	66	65	0	33	32	31	0	0	0	0	0
3.0	2024-25	240	212	212	0	112	102	102	0	0	0	0	0

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

1. PMKVY
2. BSDM
3. PMKUVA
4. Rastriya Krishi Vikas Yojana (RKVY)

Content availability for previous versions of qualifications:

Participant Handbook Facilitator Guide Digital Content Qualification Handbook Any Other:

Languages in which Content is available: Hindi and English

Annexure 5: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
AGR/N7102: Prepare for growing the seeds	<i>Plan and conduct the site-visit</i>	4	8		4
	PC1. select a field for seed production as per the seed production company's instructions, ensuring it has adequate sunlight exposure and water for irrigation	-	-	-	-
	PC2. ensure the field doesn't have high weed incidence and is free of unwanted plants from the previous season's crop	-	-	-	-
	PC3. check the field has effective drainage and aeration for effective control of pest and diseases	-	-	-	-
	<i>Prepare the field for growing seeds</i>	8	10		6
	PC4. collect soil samples from different parts of the field for the purpose of testing	-	-	-	-
	PC5. co-ordinate with the seed production company's lab to get the soil samples tested	-	-	-	-
	PC6. apply the necessary treatment such as farmyard manure, compost and vermicompost as per the lab's recommendations to enhance the soil fertility	-	-	-	-
	PC7. plough and prepare the field as per the instructions of the seed production company's field supervisor	-	-	-	-
	PC8. maintain the record of soil testing and field preparation as per the documentation requirements of the seed production company	-	-	-	-
	<i>Procure, test and store the seeds</i>	12	12		10
	PC9. select foundation/ certified seed varieties to grow in the field as per the company's instructions	-	-	-	-
	PC10. procure healthy seeds of the selected varieties from the seed production company or a vendor approved by them	-	-	-	-
	PC11. ensure the seeds are genetically pure, contamination-free and uniform in size	-	-	-	-
	PC12. conduct a seed test under supervision of the field supervisor to ensure the seeds have a high germination percentage and vigour.	-	-	-	-
	PC13. use an appropriate method to sort out the chaffy seeds				
PC14. wash the seeds with clean water to remove any unwanted materials					

	PC15. store the seeds under the recommended temperature and humidity as per the field supervisor's instructions				
	PC16. apply the necessary treatment in the storage as per instructions to protect the seeds from pests and disease				
	PC17. maintain the record of the treatment applied in the storage				
	<i>Arrange the tools, equipment and PPE</i>	4	8		8
	PC18. identify the relevant tools, equipment and Personal Protective Equipment (PPE) for sowing the seeds and maintaining the seedlings				
	PC19. arrange the tools, equipment and PPE as per the requirement				
	PC20. ensure the tools and equipment are in working condition				
	<i>Plan the seed sowing</i>	2	2		2
	PC21. plan the sowing of seeds in a way to ensure that there are no heavy rains at the flowering stage of the seed crop and it matures in the summer season to achieve the best quality of seeds				
	Total Marks	30	40	-	30
	<i>Sow the seeds</i>	12	14		6
	PC1. sow the seeds as per the field supervisor's instructions, maintaining the recommended planting depth and density for the selected seed varieties	-	-	-	-
	PC 2 Maintain appropriate distances from other varieties to prevent cross-pollination				
	PC3. apply the recommended quantity of farmyard manure on the seeds as per the instructions	-	-	-	-
	PC4. water the planted seeds with the recommended quantity of water				
	PC5. maintain the recommended temperature and soil moisture as per instructions to help the seeds germinate				
	<i>Maintain healthy growth of the seed crop</i>	8	16		6
	PC6. apply water and recommended fertilizers uniformly in the appropriate quantity to maintain healthy growth of the seed crop	-	-	-	-
	PC7. use the isolation distance method under supervision of the field supervisor to maintain the purity of the seed accessions at the pollination stage	-	-	-	-
	PC8. implement controlled pollination practices like bagging, hand-pollinating, or using dedicated pollinator species (such as bees), where required				
AGR/N7103: Sow the seeds and maintain the seed crop					

	PC9. mount the soil near the root region of the seed crop plants to enhance their water and nutrient absorption capacity and help the plants to stand upright	-	-	-	-
	PC10. apply a cover of mosquito net/ paper bags/ nylon stockings on the floral portion of the crop plants as per the bagging technique	-	-	-	-
	PC11. co-ordinate with the field supervisor to identify and remove the crop plants with undesirable characteristics to maintain the genetic purity of the seeds as per the roughing method	-	-	-	-
	<i>Identify and remove the weeds</i>	6	4		10
	PC12. identify varieties of weeds growing among the seed crop during various stages of their growth	-	-	-	-
	PC13. remove the weeds manually or mechanically as per the field supervisor's instructions	-	-	-	-
	PC14. apply the recommended weedicides in an appropriate quantity as per the manufacturer/ field supervisor's instructions	-	-	-	-
	<i>Control pests and disease</i>	4	6		8
	PC15. monitor the seed crop regularly for signs of pest/ disease infestation	-	-	-	-
	PC16. apply the recommended pesticides/ insecticides as per the manufacturer/ field supervisor's instructions to remove and control pests/ insects	-	-	-	-
	PC17. drain out excess water from the field to prevent the growth of pathogens				
	PC18. maintain the record of use of fertilizers/ weedicides/ pesticides/ insecticides as per the seed production company's documentation requirements	-	-	-	-
	Total Marks	30	40		30
AGR/N7104: Perform harvesting and post-harvest processing of the seed crop	<i>Harvest the crop</i>	8	10		4
	PC1. co-ordinate with the field supervisor to check if the seed crop plants have attained complete physiological maturity for being harvested	-	-	-	-
	PC2. select manual or mechanical harvesting method according to the type and quantity of seed crop and field supervisor's instructions	-	-	-	-
	PC3. harvest the seed crop ensuring minimum loss and damage to the seeds	-	-	-	-

PC4. thresh the harvested seed crop manually or mechanically as per the field supervisor's instructions to separate the seeds from the seed crop plants	-	-	-	-
PC5. ensure the seed crop is sufficiently dry before threshing is carried out	-	-	-	-
PC6. collect seeds in appropriate bags/ baskets during harvesting				
PC7. protect the seeds from contamination during harvesting and avoid mixture with other types of seeds				
<i>Perform post-harvest processing</i>	5	10		8
PC8. clean the seeds using the wet or drycleaning method according to the type of seed crop and field supervisor's instructions	-	-	-	-
PC9. carry out winnowing to remove stem bits, petals, husks and other flower parts and debris mixed with the seeds	-	-	-	-
PC10. carry out sieving using sieves of different gauge sizes according to the need	-	-	-	-
PC11. dry the seeds under the sun according to the quantity of seeds and conducive weather conditions	-	-	-	-
PC12. ensure to shade dry the seeds with high moisture content before exposing them to sun	-	-	-	-
PC13. protect the seeds from pests and exposure to moist air during sun drying	-	-	-	-
PC14. dry a high quantity of seeds mechanically using air blowers under supervision in a well-ventilated space	-	-	-	-
PC 15. Sort seeds by size, weight, and quality to ensure uniformity in the final product				
PC16. co-ordinate with the field supervisor to check the moisture content in the seeds and ensure that they have been dried to the required level	-	-	-	-
PC 17. Test a sample batch to check germination rates and check for diseases, pathogens, and pests that could affect future crops				
<i>Pack and store the seeds</i>	8	10		9
PC18. select appropriate bags as per the seed production company's standards to pack the seeds to be sent to the seed processing plant	-	-	-	-
PC19. pack the seeds in the bags ensuring no damage to them	-	-	-	-
PC20. arrange the seeds in lots according to the variety and label them appropriately	-	-	-	-

	PC21. store the packed seeds in a storage area with the required temperature and humidity before being transported				
	PC22. Keep detailed records of seed batches, storage duration, and conditions				
	PC23. stack the seed bags in the storage ensuring the seeds in the bags at the bottom don't suffer damage				
	PC24. store the same variety of seeds together and in the correct position				
	<i>Transport the seeds to the seed processing plant</i>	3	6		3
	PC25. arrange an appropriate mode of transport as per the company standards to ensure the protection of seeds during transit				
	PC26. load the seed bags safely in the transport vehicle				
	PC27. maintain the record of seeds bags loaded and transported to the seed processing plant				
	<i>Follow certification protocols</i>	6	4		6
	PC 28 Adhere to certification requirements set by seed regulatory bodies to maintain quality standards				
	PC 29. Maintain accurate records of planting, inputs, harvest, and storage to trace any quality issues and comply with regulations				
	Total Marks	30	40	-	30
AGR/N9908: Undertake basic entrepreneurial activities for small enterprise	<i>Plan the agricultural enterprise/ business</i>	10	14		10
	PC1. analyse the demand and supply of the relevant agricultural produce in the market	-	-	-	-
	PC2. identify the target customers and assess their needs and expectations with respect to the quality and price of the produce	-	-	-	-
	PC3. identify various types of agricultural entrepreneurship/ business opportunities	-	-	-	-
	PC4. plan agricultural production with the use of relevant and efficient technologies for availing funds	-	-	-	-
	PC5. identify appropriate and authentic advisory services/Government authority for skill upgradation to successfully plan and implement business activities	-	-	-	-
	PC6. prepare a basic business plan for the agricultural entrepreneurship/business activities	-	-	-	-
	PC7. identify appropriate sources of funding for the agricultural entrepreneurship/ business	-	-	-	-

PC8. coordinate with the relevant government authorities to subscribe to the relevant government schemes and programs to benefit from them	-	-	-	-
PC9. ensure compliance with the government structural reforms and framework along with the applicable rules and regulations while setting up the agricultural enterprise/ business	-	-	-	-
<i>Manage the agricultural production process</i>	8	10		8
PC10. select and arrange the necessary resources for the business operations	-	-	-	-
PC11. ensure the use of relevant and efficient production technologies as per planning and availability of funds	-	-	-	-
PC12. follow the recommended practices for efficient input resource management				
PC13. optimise the production processes and output through the amalgamation of existing practices with smart technologies				
PC14. follow the recommended sustainability practices during agricultural production to prevent adverse impacts on the environment and produce viz. deforestation, loss of biodiversity, soil degradation, etc.				
<i>Manage the post-production and marketing processes</i>	12	16		12
PC15. ensure the availability of proper storage infrastructures and facilities postproduction of the produce as per the industry quality standards				
PC16. collect information related to the wholesale and retail price of produce				
PC17. calculate the costs incurred and determine the price of the produce for profitability				
PC18. ensure that the cost of production, transportation, and marketing are considered while calculating the cost and setting the price for the produce				
PC19. collect information related to various subsidies/funds offered by the government, authorised state units and other financial institutions involved with the promotion of the produce				
PC20. select appropriate marketing channels for the produce, considering the relevant requirements and constraints				
PC21. identify various risks to production and post- production processes and manage them appropriately				

	PC22. undertake outreach programs to promote agricultural products and services, and expand agri- business				
	PC23. prepare and execute a marketing plan considering the 4Ps i.e., product, price, promotion, and place and 4As i.e., acceptability, affordability, accessibility, and awareness				
	PC24. use the relevant digital services such as e- commerce, e- payments, electronic record-keeping, etc.				
	PC25. use efficient post-production logistics means to improve the supply quantity, reduce the cost to the consumer, and increase demand consequently				
	PC26. ensure all the relevant information such as quality and quantity of produce, date of manufacture, batch number, and sale is recorded electronically and/ or manually				
	PC27. coordinate with the various stakeholders for efficient and sustainable agri-business growth and development				
	Total Marks	30	40	-	30
AGR/N9903: Maintain health and safety at the workplace	<i>Maintain personal hygiene</i>	<i>10</i>	<i>5</i>	-	<i>10</i>
	PC1. wash hands, legs and face with soap/alcohol-based sanitizer at reasonable intervals	-	-	-	-
	PC2. wash the worn clothes with soap and sun- dry before use next time	-	-	-	-
	PC3. ensure the face is covered with mask or three layers of cloth-piece	-	-	-	-
	PC4. follow the workplace sanitisation norms including distancing from sick people	-	-	-	-
	<i>Maintain clean and safe workplace</i>	<i>15</i>	<i>15</i>	-	<i>15</i>
	PC5. carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor	-	-	-	-
	PC6. wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy	-	-	-	-
	PC7. follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc. to avoid hazards	-	-	-	-
	PC8. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices	-	-	-	-
	PC9. sanitize equipment, tools and machinery before and after use	-	-	-	-
PC10. use equipment and materials safely and correctly and return the same to designated storage after use	-	-	-	-	

	PC11. dispose waste safely and correctly in the designated area	-	-	-	-
	PC12. recognize risks to bystanders and take required action to reduce the risks	-	-	-	-
	PC13. work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed	-	-	-	-
	PC14. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger	-	-	-	-
	PC15. follow government / workplace advisories in case of outbreak of any disease/disaster	-	-	-	-
	<i>Administer appropriate emergency procedures</i>	15	5		10
	PC16. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements				
	PC17. use emergency equipment in accordance with manufacturer's specifications and workplace requirements				
	PC18. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques				
	PC19. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate				
	PC20. report details of first aid administered in accordance with workplace procedures				
	Total Marks	40	25	-	35
DGT/VSQ/N0102: Employability Skills (60 Hours)	<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)	5	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline/online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
Total Marks	20	30	-	-
Grand Total				

Annexure 6: Assessment Strategy

as involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

ism Overview

ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake assessment Criteria, SSC in association with empanelled AAs, define the test structure for the given job roles to cover the required skills and strategy consists of the following:

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

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

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

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

Viva: 20%

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

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

2. Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of Internet.

- Multilingual assessments (ASCI is conducting assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback stored digitally on cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle-screen/copy-paste disabled, etc.
- Android based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention
- Assessment will normally be fixed for a day after the end date of training / within 7 days of completion of training.
- Assessment will be conducted at the training venue

- Room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities
- Question bank of theory and practical will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on same day. In case of more number of candidates, number of assessors and venue facilitation be increased and facilitated

Assessment			
Assessment Type	Formative or Summative	Strategies	Examples
Theory	Summative	MCQ/Written exam	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks/Demonstration	Practical application /Demonstration /Application tasks
Viva	Summative	Questioning and Probing	Mock interviews on usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling job situation

The question paper pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

3. Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi- dimensional evaluation of candidates covering language, cognitive skills, behavioral traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by theoretical understanding of the testing objectives and published research about the item-types and constructs that have shown statistical validity towards measuring the construct. Test item types which have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, do's and don'ts, subjective questions to check understanding of practical tasks.

Assessor has to go through orientation program organized by Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. Assessor shall be given a NOS and PC level overview of each QP as applicable. Overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework which will maintain standardization of marking scheme.

4. Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidences collected by AAs and ASCI are:

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidences (photos and videos) to the assessor one day prior to the assessment. List is mentioned below:
 - Signed Attendance sheet
 - Assessor feedback sheet
 - Candidate feedback sheet
 - Assessment checklist for assessor
 - Candidate Aadhar/ID card verification
 - Pictures of classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
 - Pictures and videos of Assessment, training feedback and infrastructure.
- Apart from the Assessor, Technical assistant popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of assessment, regular calls and video calls are done.
- On-boarding and training of assessor and proctor is done on timely basis to ensure that quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

5. Methods of Validation

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical spoc event status. Assessor/Technical spoc are instructed to reach

the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.

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

Method for assessment documentation, archiving, and Access:

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

Annexure: 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