



QUALIFICATION FILE

Floriculturist

☒ 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	Floriculturist Elective 1: Rose Elective 2: Gerbera Elective 3: Chrysanthemum Elective 4: Orchid Elective 5: Marigold													
2.	Sector/s	Agriculture													
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing qualification: 2022/AGR/ASCI/06527 & Version 1.0	Qualification Name of existing/previous version: Floriculturist												
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	NA													
5.	National Qualification Register (NQR) Code &Version <i>(Will be issued after NSQC approval)</i>	QG-04-AG-03542-2025-V2-ASCI & Version 2.0	6. NCrF/NSQF Level: 4												
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate													
8.	Brief Description of the Qualification	A Floriculturist performs various activities in the process of cultivating flower crop such as selecting the site; preparing the field; propagating saplings in the nursery; transplanting the sapling, and maintaining the plants. The person is also responsible for carrying out harvesting, post-harvesting processing and marketing of the flower crop.													
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12th or equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>10th Class</td> <td>3 years of relevant experience in Agriculture & Allied sectors</td> </tr> <tr> <td>3</td> <td>Previous NSQF Level 3.5</td> <td>1.5 years of relevant experience in Agriculture & Allied sectors</td> </tr> </tbody> </table>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12th or equivalent		2	10th Class	3 years of relevant experience in Agriculture & Allied sectors	3	Previous NSQF Level 3.5	1.5 years of relevant experience in Agriculture & Allied sectors
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)													
1	12th or equivalent														
2	10th Class	3 years of relevant experience in Agriculture & Allied sectors													
3	Previous NSQF Level 3.5	1.5 years of relevant experience in Agriculture & Allied sectors													

		4	Previous NSQF Level 3	3 Years of relevant experience in in Agriculture & Allied sectors																			
		b. Age: NA																					
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	Min: 13 Max: 21		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 <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>180</td><td>30</td><td></td><td>390</td></tr> <tr> <td>Online</td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> (Refer Blended Learning Annexure for details)				Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	180	180	30		390	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																		
Classroom (offline)	180	180	30		390																		
Online																							
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/6113.0601																					
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Floriculturist (L4), Horticulture Supervisor (L5)																					
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																					
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																					
18.	Is the Job Role Amenable to Persons with Disability	☒ Yes ☐ No If "Yes", specify applicable type of Disability: SHI																					
19.	How Participation of Women will be Encouraged	Batches specific to women will be formed																					
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	☒ Yes ☐ No DGT/VSQ/N0102 (v1.0)																					
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☒ Yes ☐ No Colleges ☒ Yes ☐ No																					
22.	Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Ms Purnambica.K Email: standards@asci-india.com Website: www.asci-india.com Contact No.: 0124-4670029																					

23.	Final Approval Date by NSQC: 18-02-2025	24. Validity Duration: 3 Years post NSQC Approval	25. Next Review Date: 18-02-2028
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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/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 the cultivation of flower crop	AGR/N0701 (v4.0)	Core	4	1	15	15			30	30	40		30	100	10
2	Propagate flower plant saplings	AGR/N0718 (v3.0)	Core	4	1	10	20			30	30	40		30	100	10
3	Harvest, transplant and maintain saplings to grow flowers	AGR/N0702 (v3.0)	Core	4	1	10	20			30	30	40		30	100	15
4	Carry out harvesting and post-harvest management of flower crop	AGR/N0703 (v4.0)	Core	4	2	15	45			60	30	40		30	100	15
5	Undertake basic entrepreneurial activities for small Enterprise	AGR/N9908 (v3.0)	Non-Core	4	1	15	15			30	30	40		30	100	10
6	Engage in collective farming/activity	AGR/N9922 (v2.0)	Non-Core	4	1	20	10			30	30	40		30	100	5
7	Maintain health and safety at the workplace	AGR/N9903 (v4.0)	Non-Core	4	1	15	15			30	40	25		35	100	5
8	Employability Skills (60 Hours)	DGT/VSQ/N0102 (v1.0)	Non-Core	4	2	60				60	20	30			50	5
9	OJT (Mandatory)				1			30		30						
Duration (in Hours) / Total Marks					11	160	140	30		330	240	295		215	750	75

Elective NOS 1: Rose

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.	Carry out cultivation of rose flowers	AGR/N0719 (v2.0)	Core	4	2	20	40			60	30	40		30	100	25
Duration (in Hours) / Total Marks					2	20	40			60	30	40		30	100	25

Elective NOS 2: Gerbera

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.	Carry out cultivation of gerbera flowers	AGR/N0720 (v2.0)	Core	4	2	20	40			60	30	40		30	100	25
Duration (in Hours) / Total Marks					2	20	40			60	30	40		30	100	25

Elective NOS 3: Chrysanthemum

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.	Carry out cultivation of chrysanthemum flowers	AGR/N0721 (v3.0)	Core	4	2	20	40			60	30	40		30	100	25
Duration (in Hours) / Total Marks					2	20	40			60	30	40		30	100	25

Elective NOS 4: Orchid

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.	Carry out cultivation of orchid flowers	AGR/N0722 (v3.0)	Core	4	2	20	40			60	30	40		30	100	25
Duration (in Hours) / Total Marks					2	20	40			60	30	40		30	100	25

Elective NOS 5: Marigold

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.	Carry out cultivation of marigold flowers	AGR/N0723 (v2.0)	Core	4	2	20	40			60	30	40		30	100	25
Duration (in Hours) / Total Marks					2	20	40			60	30	40		30	100	25

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 NCVT guidelines)	10 th class with 5years of relevant industry experience in Floriculture farming* *Floriculturist (Open Cultivation) with 5 Years of experience with 10th Pass. Experience certificate issued by BDO/Agriculture Officer/Head of Gram Panchayat/Loan disbursing bank or financial institution on official letter Head OR 12th Class with 4 years of relevant industry experience in Floriculture farming**
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		** Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honourable Discharge/ Pension. SSC would consider a relaxation/waiver of sector-specific experience on a case-to-case basis. OR Diploma (Agriculture/ Horticulture) with 3 years of relevant industry experience in Floriculture farming, OR Graduate (any stream except Agriculture/ Horticulture/ Forestry) with 2 years of relevant industry experience in Floriculture farming*** ***For the school Program minimum qualification of the Trainer should be Graduate (Agriculture / Horticulture / Botany/ Forestry) with minimum 3 years Teaching experience (will be considered industry experience) OR Graduate (Agriculture / Horticulture/ Forestry) with 0.5 year of relevant industry experience in Floriculture farming
2.	Master Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	5 years of training experience in Floriculture Farming after Graduation (any stream except Agriculture/ Horticulture/ Forestry) and 2 years of relevant industry experience in Floriculture farming OR 5 years of training experience in Floriculture Farming after Graduation (Agriculture / Horticulture/ Forestry) and 0.5 year of relevant industry experience in Floriculture farming
3.	Tools and Equipment Required for Training	☒ Yes ☐ No <i>(If "Yes", details to be provided in Annexure)</i>
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

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

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): under PMKVY scheme
3.	Government /Industry initiatives/ requirement (Yes/No): Government Initiative, part of PMKVY 4.0
4.	Number of Industry validation provided: 10
5.	Estimated nos. of persons to be trained and employed: 40,000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes, have received concurrence from Ministry of Agriculture & Farmers Welfare, Department. of Agriculture, Coop. and 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 <i>(Mandatory)</i>	<i>Annexure-1</i>
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Annexure-2</i>
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Annexure-5</i>
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	<i>Annexure-6</i>
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is "Blended Learning")</i>	<i>NA</i>

6.	Annexure: Multiple Entry-Exit Details (<i>Mandatory, in case qualification has multiple Entry-Exit</i>)	NA
7.	Annexure: Acronym and Glossary (<i>Optional</i>)	
8.	Supporting Document: Model Curriculum (<i>Mandatory – Public view</i>)	Annexure-7
9.	Supporting Document: Career Progression (<i>Mandatory - Public view</i>)	Floriculturist (L4), Horticulture Supervisor (L5)
10.	Supporting Document: Occupational Map (<i>Mandatory</i>)	Annexure-8
11.	Supporting Document: Assessment SOP (<i>Mandatory</i>)	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	- Select the site and flower varieties to grow - Arrange the required resources	A Floriculturist performs various activities in the process of cultivating flower crop such as selecting the site; preparing the field; choosing flower varieties to grow according to season, propagating saplings in the nursery; transplanting the sapling, and maintaining the plants. The person is also responsible for carrying out harvesting, post-harvesting processing and marketing of the flower crop.	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	- Carry out harvesting and post-harvest processing - Select the rose variety and propagation method - Select the gerbera variety and propagation method - Select the chrysanthemum variety and propagation method	The job holder is expected to have knowledge to sort and grade the harvested flowers on the basis of applicable parameters, select an appropriate propagation method for growing rose saplings, select the appropriate variety of rose to grow according to the region, select an appropriate propagation method for growing gerbera saplings, select an appropriate propagation method for growing chrysanthemum saplings, select an appropriate propagation method for growing marigold saplings, optimise the usage of water	4

	• Select the marigold variety and propagation method • Optimise resource utilisation • Perform waste management • Practice inclusion at work • Administer appropriate emergency procedures • Maintain personal hygiene • Maintain appropriate emergency procedures	and other resources in various tasks and processes, optimise the usage of water and other resources in various tasks and processes, dispose the non-recyclable waste in an environment-friendly manner, adopt gender-neutral behaviour at work, empathise with Persons with Disabilities (PwD), follow procedures for dealing with accidents, fires and emergencies, use emergency equipment in accordance with manufacturer's specifications and workplace requirements, report details of first aid administered in accordance with workplace procedures.	
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Maintain the flower plants and flowers • Harvest the flower crop • Maintain clean and safe workplace • Select the site and prepare the soil • Harvest and transplant the saplings • Maintain the rose plants • Maintain the gerbera plants • Propagate orchid plants	The job holder is expected to apply the recommended organic and inorganic fertilisers in the prescribed quantity for the optimum growth of plants, apply the recommended pesticides, insecticides or fungicides to treat the infected plants and flowers, carry out weeding to remove unwanted plants growing among the flower crop, carry out pruning to remove dead and unwanted leaves and branches from plants, water the plants with the recommended quantity and as per the irrigation schedule, drain out any water accumulated in the field to prevent root rot among the flower crop plants, arrange the required tools, implements and accessories for harvesting and collecting the saplings, check the saplings in the nursery to determine their readiness, harvest the flower crop following the recommended harvesting technique, carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards, assess risks prior to performing manual handling jobs, and work accordingly, follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc, work in a manner which minimizes environmental damage, follow	4

		government / workplace advisories in case of outbreak, ensure the site selected for rose cultivation has the required temperature along with adequate exposure to sunlight, the soil is well-drained, loamy and rich in organic matters with the recommended alkalinity and pH levels, mix sand and farmyard manure in the soil in the quantity recommended, harvest the rose saplings from the nursery bed, transplant rose saplings in the field at the recommended planting density, apply the recommended fertiliser to the saplings appropriately, check the rose plants regularly for signs of pests and disease, apply the recommended pesticide or insecticide, carry out weeding regularly to remove unwanted plants growing, carry out defoliation according to the rose variety to induce flowering, install support for the gerbera plants, check the gerbera plants regularly for signs of pests and disease, carry out pruning of gerbera plants, apply the recommended organic and inorganic fertilisers in the prescribed quantity, rake the soil in the field at the recommended intervals to facilitate easy absorption of water and fertiliser, prepare the growth media using the recommended materials, plant the orchid seeds in pots at the recommended depth and density, maintain the pots at the recommended temperature and humidity to induce the germination of seeds.	
Broad Learning Outcomes/Core Skill	• Prepare the field for flower cultivation • Propagate saplings through seeds • Propagate saplings through the cutting method • Propagate saplings through the root division method	The job holder is expected to co-ordinate with an approved lab to identify the soil treatment requirements, apply the appropriate treatment to the soil as per the lab's recommendation to improve its fertility, and adjust the pH and salinity levels, level the field appropriately, remove all roots, debris, and waste material from the field, prepare ridges and furrows and apply the recommended fertiliser to them, install an	4

	• Propagate saplings through the layering and budding method • Transplant the saplings • Prepare the storage area and store the flower crop • Propagate, harvest and transplant the saplings • Carry out cultivation practices in rose • Carry out cultivation practices of gerbera flowers • Carry out cultivation practices of chrysanthemum flowers • Carry out cultivation practices of orchid flowers • Carry out cultivation practices of marigold	irrigation or fertigation system in the field, prepare sunken, level or raised nursery bed according to the requirement, sort out the poor-quality or damaged seeds and carry out their pre-sowing treatment, sow seeds in the seedbed, poly bags and containers at the recommended depth, acclimatise the saplings before transplanting, extract stems of the recommended specifications from the plant, use the stems to propagate plants maintaining the required level of moisture and sunlight exposure, create root divisions from the plant's root, use the root divisions to propagate plants maintaining the recommended environment, cover the stem/ tip/ trunk of the plant with soil according to the selected method, apply the recommended quantity of water and fertiliser, cut a bud-stick from a healthy and disease-free plant, prepare and use bud-scion to propagate plants, apply the approved pesticides and insecticides to protect the saplings from pests and diseases, transplant the saplings in the field at the recommended depth and planting density, water the sapling with the recommended quantity and apply the recommended organic or inorganic fertilisers, apply the relevant treatment in the storage area to remove any pests, insects and rodents, ensure the storage area is clean and well-ventilated, store the harvested flowers at the recommended temperature and humidity, protect the saplings from excessive heat and strong winds, transplant saplings in the field at the recommended planting density, water the saplings with the recommended quantity and apply fertilisers in an appropriate quantity immediately after transplanting.	
Responsibility	• Preparing the field	A Floriculturist performs various activities in the process of cultivating flower crop such as selecting the site;	4

	- Transplanting the sapling, and maintaining the plants - Propagating saplings in the nursery - Market the flower crop	preparing the field; propagating saplings in the nursery; transplanting the sapling, and maintaining the plants. The person is also responsible for carrying out harvesting, post-harvesting processing and marketing of the flower and prepare storage area and store the flower crops.	
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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	Kudal	Nos	1
2	Watering Can	Nos	1
3	Spray Machine	Nos	1
4	Face Masks / Face Cover	Nos	30
5	Rubber gloves	Pair	15
6	Gumboots	Nos	6
7	Khurpi	Nos	7
8	Lawn Mower	Nos	1
9	Hedge cutter	Nos	2
10	Seedling Tray	Nos	1
11	Pesticides- Any type	Litres	1
12	Video recording equipment	Nos	1
13	Favda	Nos	2

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Marker

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	CAAFE	Sumit Srivastava	General Manager	New Delhi	9889990102	info@caafe.in	
2	Centre for Microfinance	Amit Kumar	Head	Jaipur		amit.kumar@cmfraj.org	
3	Post-Graduation Department of Agriculture	Dr. Randeep Kaur and Dr. Lavleen Kaur	Associate Professor and Assistant Professor	Amritsar	9915305271	lavleenkaur@khalsacollege.edu.in	
4	Agri Joy Private Limited	Priyanshu Jain	Director	Dehradun	79064282293	priyanshu@agrijoy.in	
5	Eco Fast Agri Solution	Shivender Pratap Rathore	Founder & CEO	Bihar	9887720651	ecofastagrisolutions@gmail.com	
6	Jagtap Horticulture Pvt Ltd	Shrinkhala Mahobla	HR Manager	Pune	9011032314	hr@jagtaphorticulture.com	
7	Khatana Dragon Fruit Farm and Nursey	Mustak Gurjar	Proprietor	AMB	8679410007	mustak.kathana@yahoo.com	
8	Pathik Agrihorti Solutions pvt. Ltd	Dr Nirmal Kant Sharma	Director	Karnal	7018436769	pagrihortisolutions@gmail.com	
9	Rai Farms and Nursery	Ram Rai	Proprietor	Damtal, Kangra	9888135135		
10	Synergy Tecnofin Private Limited	Abhinav Sharma	HR	Delhi	9870568976	abhinav@synergytech.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	10,000	10	100	10		

2026-27	15,000	10	100	10		
2027-28	15,000	10	1001	10		

Data to be provided year-wise for next 3 years

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

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
3.0	2024-25	1527	791	727	0	625	297	267	0	0	0	0	0
3.0	22-25	31043	0	0	0	0	0	0	0	0	0	0	0

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

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

1. PMKVY
2. School

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/N0701: Prepare for the cultivation of flower crop	<i>Select the site and flower varieties to grow</i>	10	12		14
	PC1. select a site with the recommended temperature, atmospheric humidity, sunlight exposure and rainfall, ensuring it is free from limiting factors such as strong winds and hailstorms				
	PC2. ensure the site has the availability of required inputs such as water, electricity and labour, and accessibility to the relevant markets				
	PC3. ensure the soil is well-drained and there is no accumulation of water in the field				
	PC4. identify and select the relevant varieties of flower crop to grow in the field as per the climatic conditions, resistance to local pests, adaptability to conditions, market demand and profitability				
	<i>Arrange the required resources</i>	12	12		8
	PC5. estimate the requirement of various resources such as seeds, seedlings, pesticides, fertilisers, implements, tools and equipment etc.				
	PC 6. Analyse the crop calendar to determine optimal agro climatic conditions				
	PC 7. identify and select an appropriate vendor based on the quality and price of required resources available with them				
	PC 8. purchase the necessary resources in the required quantity and store them appropriately				
	<i>Prepare the field for flower cultivation</i>	8	16		8
	PC9. co-ordinate with an approved lab to identify the soil treatment requirements				
	PC10. apply the appropriate treatment to the soil as per the lab's recommendation to improve its fertility, and adjust the pH and salinity levels				
	PC11. remove all roots, debris, and waste material from the field				
	PC12. till the field to the required depth and mix sand in the soil in the prescribed quantity				
	PC13. level the field appropriately				
	PC14. carry out soil fumigation to prevent the growth of soil-borne pathogens				

	PC15. prepare ridges and furrows of recommended dimension and apply the recommended fertiliser to them				
	PC16. prepare sunken, level or raised nursery bed according to the requirement for raising saplings				
	PC17. install an irrigation or fertigation system in the field				
	PC18. create drains in the field for the effective drainage of water				
	PC19. erect fences around the field to protect it from animals				
	Total Marks	30	40	-	30
AGR/N0718: Propagate flower plant saplings	<i>Propagate saplings through seeds</i>	<i>8</i>	<i>12</i>		<i>6</i>
	PC1. sort out the poor-quality or damaged seeds				
	PC2. carry out their pre-sowing treatment of seeds				
	PC3. prepare the seedbed according to the local agro-climatic conditions				
	PC4. fill in the poly bags and containers with the recommended quantity of treated soil				
	PC5. sow seeds in the seedbed, poly bags and containers at the recommended depth				
	PC6. apply the recommended quantity of water and organic or inorganic fertiliser on the sown seeds				
	PC7. maintain saplings in the seedbed/ poly bags/ containers for the recommended period				
	PC8. acclimatise the saplings before transplanting				
	<i>Propagate saplings through the cutting method</i>	<i>6</i>	<i>8</i>		<i>4</i>
	PC9. select a healthy plant to take the cutting from				
	PC10. extract stems of the recommended specifications from the plant				
	PC11. use the stems to propagate plants maintaining the required level of moisture and sunlight exposure				
	PC12. use rooting mixtures and plant growth hormones in appropriate quantities				
	<i>Propagate saplings through the division method</i>	<i>4</i>	<i>6</i>		<i>4</i>
	PC13. select a healthy and grown plant for root/shoot division				
	PC14. create divisions from the plant's root/Shoot				
	PC15. use the root/shoot divisions to propagate plants maintaining the recommended environment				
	<i>Propagate saplings through the layering and budding method</i>	<i>12</i>	<i>14</i>		<i>16</i>
	PC16. select an appropriate method of layering according to the type of plant				

	PC17. cover the stem/ tip/ trunk of the plant with soil according to the selected method				
	PC18. apply the recommended quantity of water and fertiliser to support the growth of roots				
	PC 19. Prune the rootstock and make incision for grafting				
	PC20. Prepare the scion				
	PC21. Connect scion and rootstock				
	PC22. Secure and protect the graft to propagate plants				
	PC 23. prepare a rootstock for budding				
	PC24. cut a bud-stick from a healthy and disease-free plant with the required characteristics				
	PC25. prepare and use bud-scion to propagate plants				
	PC26. apply the approved pesticides and insecticides to protect the saplings from pests and diseases				
	PC 27. Prepare natural growth boosters for quick plant growth				
	PC 28 Store the seeds and cuttings properly to prevent damage				
	Total Marks	30	40		30
AGR/N0702: Harvest, transplant and maintain saplings to grow flowers	<i>Harvest the saplings</i>	<i>8</i>	<i>12</i>		<i>6</i>
	PC1. check the saplings in the nursery to determine their readiness for being harvested				
	PC2. arrange the required tools, implements and accessories for harvesting and collecting the saplings				
	PC3. harvest and collect the saplings in appropriate baskets or containers, ensuring no damage to them				
	<i>Transplant the saplings</i>	<i>8</i>	<i>8</i>		<i>8</i>
	PC4. transplant the saplings in the field at the recommended depth and planting density, protecting them from damage				
	PC5. water the sapling with the recommended quantity and apply the recommended organic or inorganic fertilisers appropriately soon after transplanting				
	PC6. install support such as bamboo sticks to train and support the sapling				
	PC7. arrange to protect the saplings from strong winds and excessive heat or cold				
	<i>Maintain the flower plants and flowers</i>	<i>8</i>	<i>10</i>		<i>10</i>

	PC8. apply the recommended organic and inorganic fertilisers in the prescribed quantity for the optimum growth of plants				
	PC9. water the plants with the recommended quantity and as per the irrigation schedule and prevailing weather conditions				
	PC10. follow the recommended measures to protect the plants and flowers from pests and disease				
	PC11. apply the recommended pesticides, insecticides or fungicides to treat the infected plants and flowers				
	PC12. carry out pruning to remove dead and unwanted leaves and branches from plants				
	PC13. apply mulch in the field to prevent weed growth				
	PC14. carry out weeding to remove unwanted plants growing among the flower crop, ensuring no damage to the crop				
	PC15. drain out any water accumulated in the field to prevent root rot among the flower crop plants				
	<i>Optimise resource utilisation</i>	2	4		2
	PC16. optimise the usage of water and other resources in various tasks and processes				
	PC17. plug water leakages to prevent its wastage				
	<i>Perform waste management</i>	4	6		4
	PC18. segregate waste into appropriate categories				
	PC19. dispose the non-recyclable waste in an environment-friendly manner and use the recyclable waste appropriately				
	Total Marks	30	40	-	30
AGR/N0703: Carry out harvesting and post-harvest management of flower crop	<i>Harvest the flower crop</i>	6	8		6
	PC1. check the flower crop to determine its readiness for being harvested				
	PC2. arrange the required tools, implements and accessories for harvesting flowers				
	PC3. harvest the flower crop following the recommended harvesting technique, ensuring no damage to flowers				
	<i>Carry out post-harvest processing</i>	4	6		8
	PC4. carry out precooling of flowers to remove field heat				
	PC5. sort and grade the harvested flowers on the basis of applicable parameters such as appearance, size, stem thickness etc.				
	<i>Prepare the storage area and store the flower crop</i>	8	8		8

	PC6. apply the relevant treatment in the storage area to remove any pests, insects and rodents				
	PC7. ensure the storage area is clean and well-ventilated before storing the harvested flowers				
	PC8. prepare and apply the preservative solution on flowers to protect their freshness				
	PC9. store the harvested flowers at the recommended temperature and humidity, ensuring no damage to them				
	<i>Market the flower crop</i>	<i>12</i>	<i>18</i>		<i>8</i>
	PC10. identify the market demand and potential buyers of the harvested flowers				
	PC11. negotiate the price with the buyer				
	PC12. select the appropriate packing material such as eco -friendly baskets or paper wraps, bamboo baskets, gunny bags, poly pouches or corrugated boxes according to the type of flowers to be packed and distance to the target market or buyer				
	PC13. condition the flowers and pack them safely				
	PC14. arrange an appropriate mode of transport to safely deliver flowers during transit				
	PC15. use the relevant e-payment method to process the payments				
	PC16. maintain the record of sales and payments				
	Total Marks	30	40	-	30
AGR/N9908: Undertake basic entrepreneurial activities for small enterprise	<i>Plan the agricultural enterprise/ business</i>	<i>10</i>	<i>14</i>		<i>10</i>
	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 post-production 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/N9922: Engage in collective farming/activity	Create PGs/ FIGs/ SHGs	6	8	-	6
	PC1. identify farmers/ groups with the common interests in the area				
	PC2. create Producer Groups (PGs)/Farmers Interest Groups (FIGs)/ Self-Help Groups (SHGs), following the applicable rules and regulations				
	Prepare for the PG/ FIG/ SHG operations	6	10	-	6
	PC3. organise fundraising activities to support the functioning of the group				
	PC4. establish links with the local government at panchayat level to obtain access to the relevant development programmes and funds				
	PC5. induct subject matter experts (SMEs) in the group				
	PC6. assist in arranging the required Information and Communication Technology (ICT) products for the group				
	PC7. plan the commodity convergence with the relevant developmental programmes				
	PC8. plan optimal production to meet the market and household food security needs				
	Conduct group meetings and training sessions	8	6	-	8

	PC9. conduct the initial group meetings to introduce the members, discuss the group objectives, group income-generating enterprises/ activities, methods of operation, etc.				
	PC10. assist in exchanging the domain and technical knowledge such as market or price information, latest technology, and resolving common issues or conflicts through the PG/ FIG/ SHG meetings				
	PC11. organise capacity building exercises such as skill development and training programmes				
	<i>Carry out collective farming/ activities</i>	10	16	-	10
	PC12. organise field trials to identify and resolve problems encountered by group members in the field operations				
	PC13. procure/hire advanced and expensive farm machineries/tools and equipment using the group fund for collective use of the group members				
	PC14. establish and manage the group-owned bank of quality seeds/ fertilisers/ pesticides/ tools and equipment, etc.				
	PC15. use the group's credit facility as per the applicable terms and conditions				
	PC16. carry out relevant duties as per own role in the PG/FIG/ SHG such as the group leader/ secretary/ book-keeper, etc.				
	PC17. co-ordinate within the group(s) in procuring inputs in bulk/large-scale farming, packing/transportation/marketing of the produce, etc.				
	PC18. assist in forming forward and backward linkages through the PGs/ FIGs/ SHGs				
	PC19. identify and follow the relevant practices to add value to the produce such as processing, packing, upgrading the quality, etc.				
	PC20. arrange for the regular repair and maintenance of the farm machineries/tools, equipment/tube/bore wells/storage/drying platforms/processing units, etc.				
	PC21. connect and partner with other groups to expand the network and address common problems at a large scale				
	Total Marks	30	40	-	30
AGR/N9903: Maintain health and safety at the workplace	<i>Maintain personal hygiene</i>	10	5	-	10
	PC1. wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals				
	PC2. wash the worn clothes with soap and sundry before use next time				
	PC3. ensure the face is covered with mask or three layers of cloth-piece				

PC4. follow the workplace sanitization norms including distancing from sick people				
<i>Maintain clean and safe workplace</i>	15	15	-	15
PC5. carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor				
PC6. wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy				
PC7. follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards				
PC8. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices				
PC9. sanitize equipment, tools and machinery before and after use				
PC10. use equipment and materials safely and correctly and return the same to designated storage after use				
PC11. dispose waste safely and correctly in the designated area				
PC12. recognize risks to bystanders and take required action to reduce the risks				
PC13. work in a manner which minimizes environmental damage, ensuring all procedures and instructions 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 incase of outbreak of any disease/disaster				
<i>Administer appropriate emergency procedures</i>	15	5	-	10
PC16. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements				
PC17. use emergency equipment in accordance with manufacturer's specifications and workplace requirements				
PC18. report provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques				
PC19. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate				

	PC20. report details of first aid administered in accordance with workplace procedures				
	Total Marks	40	25	-	35
DGT/VSQ/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)				
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				
AGR/N0719: Carry out cultivation of rose flowers	<i>Select the site and prepare the soil</i>	6	8		8
	PC1. ensure the site selected for rose cultivation has the required temperature along with adequate exposure to sunlight				
	PC2. ensure the site does not experience heavy rainfall and waterlogging				
	PC3. ensure the soil is well-drained, loamy and rich in organic matters with the recommended alkalinity and pH levels				
	PC4. mix sand and farmyard manure in the soil in the quantity recommended for rose flower crop				
	<i>Select the rose variety and propagation method</i>	6	4		6
	PC5. select the appropriate variety of rose to grow according to the region				
	PC6. select an appropriate propagation method for growing rose saplings such as seeding, budding, cutting and propagate saplings in the nursery				
	<i>Harvest and transplant the saplings</i>	4	6		46
	PC7. harvest the rose saplings from the nursery bed they when are ready for being transplanted				
	PC8. transplant rose saplings in the field at the recommended planting density, protecting them from damage				
	PC9. apply the recommended fertiliser to the rose saplings appropriately and water them with the recommended quantity immediately after transplanting				
	<i>Maintain the rose plants</i>	6	10		4
	PC10. check the rose plants regularly for signs of pests and disease				
	PC11. apply the recommended pesticide or insecticide as per the prescription				
	PC12. carry out pruning of rose plants using the appropriate implements				
	PC13. carry out weeding regularly to remove unwanted plants growing among rose plants				

	PC14. water the rose plants with the recommended quantity as per the irrigation schedule				
	PC15. apply the recommended organic and inorganic fertiliser in the prescribed quantity at appropriate intervals				
	PC16. carry out defoliation according to the rose variety to induce flowering				
	<i>Carry out harvesting and post-harvest processing</i>	8	12		10
	PC17. check the rose flowers to determine their readiness for being harvested				
	PC18. arrange the appropriate implements such as secateurs and accessories for harvesting the rose flowers				
	PC19. harvest rose flowers ensuring no damage to the flowers and plants				
	PC20. collect the harvested rose flowers in appropriate baskets or crates				
	PC21. store the harvested rose flowers at the recommended temperature				
	PC22. sort and grade rose flowers on the basis of applicable parameters				
	PC23. prepare and apply the preservative solution on the rose flowers to preserve their freshness				
	PC24. bunch the rose flowers and pack them appropriately				
	PC25. maintain the record of harvesting and processing of rose flowers				
	Total Marks	30	40		30
AGR/N0720: Carry out cultivation of gerbera flowers	<i>Select the site and prepare the soil</i>	8	10		6
	PC1. ensure the site selected for gerbera cultivation has the required temperature along with adequate shading and ventilation				
	PC2. ensure the soil is well-drained, rich in organic matters with the recommended alkalinity and pH levels				
	PC3. disinfect the soil with the recommended chemicals				
	PC4. apply plastic sheet cover on the soil and water it thoroughly after the recommended duration to wash away the disinfectants				
	PC5. mix sand and farmyard manure in the soil in the quantity recommended for gerbera flower crop				
	<i>Select the gerbera variety and propagation method</i>	2	4		2
	PC6. select the appropriate variety of gerbera to grow according to the region				

PC7. select an appropriate propagation method for growing gerbera saplings such as seeding, or cutting of side shoots and suckers				
<i>Propagate, harvest and transplant the saplings</i>	6	8		8
PC8. propagate gerbera saplings in the required quantity in the nursery				
PC9. protect the saplings from excessive heat and strong winds				
PC10. harvest the gerbera saplings from the nursery bed they when are ready for being transplanted				
PC11. transplant gerbera saplings in the field at the recommended planting density, protecting them from damage				
PC12. water the saplings with the recommended quantity and apply fertilisers in an appropriate quantity immediately after transplanting				
<i>Maintain the gerbera plants</i>	4	6		6
PC13. install support for the gerbera plants and train them as required				
PC14. water the gerbera plants with the recommended quantity as per the irrigation schedule				
PC15. carry out weeding regularly to remove unwanted plants growing among gerbera plants				
PC16. check the gerbera plants regularly for signs of pests and disease				
PC17. apply the recommended pesticide or insecticide as per the prescription				
PC18. carry out pruning of gerbera plants using the appropriate implements				
PC19. apply the recommended organic and inorganic fertilisers in the prescribed quantity at appropriate intervals				
PC20. rake the soil in the field at the recommended intervals to facilitate easy absorption of water and fertiliser, and to provide air to the roots				
<i>Carry out harvesting and post-harvest processing</i>	10	12		8
PC21. check the gerbera flowers to ensure they bloom completely before being harvested				
PC22. arrange the appropriate implements and accessories such as secateurs, crate or baskets for harvesting and collecting the gerbera flowers				
PC23. harvest and collect gerbera flowers ensuring no damage to them and plants				
PC24. maintain the harvested gerbera flowers in fresh chlorinated water and store them at the recommended temperature and humidity				

	PC25. sort and grade gerbera flowers on the basis of applicable parameters				
	PC26. soak the gerbera flower stalks in Sodium Hypochlorite solution for the recommended duration to improve their vase life				
	PC27. prepare and apply the preservative solution to the gerbera flowers to preserve their freshness				
	PC28. prepare and apply the preservative solution to the gerbera flowers to preserve their freshness				
	PC29. maintain the record of harvesting and processing of gerbera flowers				
	Total Marks	30	40		30
AGR/N0721: Carry out cultivation of chrysanthemum flowers	<i>Select the site and prepare the field</i>	8	10		8
	PC1. select a site for chrysanthemum cultivation with the required temperature, relative humidity along with adequate exposure to sunlight for the optimum growth of plants				
	PC2. ensure the site does not experience heavy rainfall and waterlogging				
	PC3. ensure the soil is well-drained, loamy and rich in organic matters with the recommended alkalinity and pH levels				
	PC4. carry out ploughing and harrowing in the field and apply farmyard manure in the recommended quantity				
	PC5. apply the recommended chemicals to the soil as per the prescription to disinfect the soil				
	PC6. apply plastic sheet cover on the soil and water it thoroughly after the recommended duration to wash away the disinfectants				
	PC7. install the appropriate irrigation or fertigation system in the field				
	PC8. create drains in the field for effective drainage of water				
	<i>Select the chrysanthemum variety and propagation method</i>	2	4		2
	PC9. select the appropriate variety of chrysanthemum to be grown according to the region and climate				
	PC10. select an appropriate propagation method for growing chrysanthemum saplings such as terminal cutting or suckers				
	<i>Propagate, harvest and transplant the saplings</i>	4	6		4
	PC11. propagate chrysanthemum saplings in the required quantity in the nursery				
	PC12. protect the saplings from strong winds, and excessive heat and cold				

PC 13. Carry out photoperiod management for year round flowering through lighting & black out				
PC14. harvest the chrysanthemum saplings from the nursery bed they when are ready for being transplanted				
PC15. transplant chrysanthemum saplings in the field at the recommended planting density, protecting them from damage				
PC16. water the saplings with the recommended quantity and apply fertilisers in an appropriate quantity immediately after transplanting				
<i>Maintain the chrysanthemum plants</i>	8	8		4
PC17. apply the recommended organic and inorganic fertilisers in the prescribed quantity at appropriate intervals				
PC18. use the recommended growth regulators as per the requirement				
PC19. check the chrysanthemum plants regularly for signs of pests and disease				
PC20. apply the recommended pesticide or insecticide as per the prescription				
PC21. water the chrysanthemum plants with the recommended quantity as per the irrigation schedule and prevailing weather conditions				
PC22. drain out any water accumulated in the field				
PC23. carry out pinching to induce the growth of lateral branches and install appropriate support to train the plants				
PC24. carry out disbudding, removing buds from the stems of the plant and leaving only terminal buds to ensure the growth of large blooms				
PC25. carry out pruning of chrysanthemum plants using the appropriate implements at regular intervals, removing the side suckers				
PC26. carry out weeding at the recommended intervals to remove unwanted plants growing among the chrysanthemum plants				
<i>Carry out harvesting and post-harvest processing</i>	8	12		12
PC27. check the chrysanthemum flowers to ensure their maturity for being harvested				
PC28. arrange the appropriate implements and accessories such as secateurs, crate or baskets for harvesting and collecting the chrysanthemum flowers				
PC29. harvest and collect chrysanthemum flowers ensuring no damage to them and plants				

	PC30. store the harvested chrysanthemum flowers at the recommended temperature and humidity				
	PC31. sort and grade chrysanthemum flowers on the basis of applicable parameters				
	PC32. prepare and apply the preservative solution on the chrysanthemum flowers to preserve their freshness				
	PC33. bunch the chrysanthemum flowers and pack them using appropriate packing material such as bamboo baskets or gunny bags				
	PC34. maintain the record of harvesting and processing of chrysanthemum flowers				
	Total Marks	30	40		30
AGR/N0722: Carry out cultivation of orchid flowers	<i>Select the site and prepare for orchid flower cultivation</i>	6	8		8
	PC1. select a site for orchid cultivation with moderate temperature and humidity along with good ventilation				
	PC2. ensure the site does not experience extended periods of sunlight exposure and strong winds				
	PC3. arrange the required materials for growing orchids such as coconut husk, charcoal, broken pieces of bricks and tiles to prepare the growing media; seeds, perforated earthen pots; foliar spray solution; growth regulators, etc.				
	PC4. select the appropriate variety of orchid to be grown according to the region and climate				
	PC5. prepare a green shade net house or polyhouse to provide sunlight to orchid flower plants through shades				
	<i>Propagate orchid plants</i>	4	6		4
	<i>PC 6.</i> Carry out vegetative propagation through division, backbulbs, offshoots				
	PC7. prepare the growth media using the recommended materials and fill in the pots with its recommended quantity				
	PC8. ensure the pots have drainage holes for draining out excess water				
	PC 9. pot the cuttings/backbulbs/offshoots as per the recommended method				
	PC10. plant the orchid seeds in pots at the recommended depth and density, and water them with the recommended quantity				
	PC11. maintain the pots at the recommended temperature and humidity to induce the germination of seeds				
	<i>Maintain the orchid plants</i>	10	12		8
	PC10. install support in the pots such as bamboo sticks to help the orchid plants grow vertically				

	PC11. protect the orchid plants from strong winds, and direct sunlight				
	PC12. apply the recommended organic and inorganic fertilisers to orchid plants in the prescribed quantity at appropriate intervals				
	PC13. use the recommended growth regulators as per the requirement				
	PC14. check the orchid plants regularly for signs of pests and disease				
	PC15. spray the recommended pesticide or insecticide on orchid plants as per the prescription				
	PC16. water the orchid plants with the recommended quantity as per the irrigation schedule and prevailing weather conditions				
	PC17. ensure no accumulation of water in the pots to prevent root rot				
	PC18. remove the dead leaves from orchid plants and weeds from the pots				
	PC19. maintain the orchid plants in moderate temperature, recommended humidity and good air circulation for their survival and optimum growth				
	<i>Carry out harvesting and post-harvest processing</i>	10	14		10
	PC20. check the orchid flowers to ensure their maturity for being harvested				
	PC21. arrange the appropriate implements and accessories such as secateurs, crate or baskets for harvesting and collecting the orchid flowers				
	PC22. harvest the orchid flowers with or without stalk as per the requirement and collect them in baskets or crates, ensuring no damage to the flowers				
	PC23. sort and grade the harvested orchid flowers on the basis of applicable parameters				
	PC24. prepare and apply the preservative solution on the orchid flowers to preserve their freshness				
	PC25. store the harvested orchid flowers at the recommended temperature and humidity				
	PC26. bunch the orchid flowers and pack them using appropriate packing material such as bamboo baskets or gunny bags				
	PC27. maintain the record of harvesting and processing of orchid flowers				
	Total Marks	30	40		30
	<i>Select the site and prepare the field</i>	8	10		8

AGR/N0723: Carry out cultivation of marigold flowers	PC1. select a site for marigold cultivation with the required temperature and exposure to the sunlight for the optimum growth of plants				
	PC2. ensure the site does not experience waterlogging				
	PC3. ensure the soil is well-drained and loamy with the recommended alkalinity, salinity, acidity and pH levels				
	PC4. carry out ploughing and harrowing in the field, and create ridges and furrows of recommended dimensions				
	PC5. apply farmyard manure in the field in the recommended quantity				
	PC6. disinfect the soil using the recommended chemicals as per the prescription				
	PC7. install the appropriate irrigation or fertigation system in the field				
	PC8. create drains in the field for effective drainage of water				
	<i>Select the marigold variety and propagation method</i>	2	4		2
	PC9. select the appropriate variety of marigold to be grown according to the region and climate				
	PC10. select an appropriate propagation method for growing marigold saplings such as terminal seeding or cuttings				
	<i>Propagate, harvest and transplant the saplings</i>	6	8		6
	PC11. treat the marigold seeds with the recommended pesticide or insecticide before sowing				
	PC12. propagate marigold saplings in the required quantity in the nursery, protecting them from strong winds, and excessive heat and cold				
	PC13. maintain the recommended level of moisture in the nursery bed for the optimum growth of saplings				
	PC14. harvest the marigold saplings from the nursery bed they when are ready for being transplanted				
	PC15. transplant marigold saplings in the field at the recommended depth and planting density, protecting them from damage				
	PC16. press soil around the root zone to avoid the formation of air pockets				
	PC17. water the saplings with the recommended quantity and apply fertilisers in an appropriate quantity immediately after transplanting				
	<i>Maintain the marigold plants</i>	8	10		6
	PC18. apply the recommended organic and inorganic fertilisers in the prescribed quantity at appropriate intervals				

PC19. check the marigold plants regularly for signs of pests and disease				
PC20. apply the recommended pesticide or insecticide as per the prescription				
PC21. water the marigold plants with the recommended quantity as per the irrigation schedule and prevailing weather conditions				
PC22. drain out any water accumulated in the field				
PC23. carry out pinching to induce the growth of lateral branches				
PC24. remove dead leaves and branches from marigold plants				
PC25. Carry out weeding at the recommended intervals to remove unwanted plants growing among the marigold plants				
<i>Carry out harvesting and post-harvest processing</i>	6	8		8
PC26. check the marigold flowers to ensure their maturity for being harvested				
PC27. arrange the appropriate implements and accessories such as secateurs, crate or baskets for harvesting and collecting the marigold flowers				
PC28. irrigate the marigold plants before harvesting				
PC29. harvest the marigold flowers with or without stalk as per the market requirements, ensuring no damage to flowers and plants				
PC30. collect the harvested flowers in appropriate baskets or containers and store them at the recommended temperature and humidity				
PC31. sort and grade marigold flowers on the basis of applicable parameters				
PC32. pack the harvested marigold flowers in gunny bags or bamboo baskets				
PC33. maintain the record of harvesting and processing of marigold flowers				
Total Marks	30	40		30

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

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-Stamped 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