



QUALIFICATION FILE

Polyhouse Installation, Monitoring and Service Supervisor

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


NCrF / NSQF Level: 5

Submitted By:
Centurion University of Technology and Management

HIG - 4, Floor 1 & 2, Jaydev Vihar, Opp Pal Heights,
Bhubaneswar, Dist. Khurda, Odisha, India - 751013
Office: (0674) 2492496

Section1: Basic Details

1.	Qualification Name	Polyhouse Installation, Monitoring and Service Supervisor		
2.	Sector/s	Agriculture and Allied		
3.	Type of Qualification <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options	NQR Code & version of the existing /previous qualification: <i>(change to previous, once approved)</i> NA	Qualification Name of the existing version: <i>(previous, once approved)</i> NA	
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA		
5.	National Qualification Register (NQR) Code & Version <i>(Will be issued after NSQC approval)</i>	QG-05-AG-01264-2023-V1-CUTM	6. NCrF/NSQF Level: 5	
7.	Award (Certificate/Diploma/ Advanced Diploma/Any Other) <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate - Polyhouse Installation, Monitoring and Service Supervisor		
8.	Brief Description of the Qualification	A Polyhouse Installation, Monitoring and Service Supervisor will design the structure and assist in installing the polyhouse. He shall monitor operation and maintenance of the polyhouse structure. He may use and control the instruments installed inside the structure. The person may also assist in cultivation practices such as maintaining nursery, transplanting, inter cultivation, irrigation, micro climate control, harvesting and post harvesting of vegetable and flower crops.		
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience:		
		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Relevant Experience (with Specialization - if applicable)
		1.	Completed or Pursing 2 nd year of degree in Agriculture / Botany / Biology / Bio Technology	NA

		2.	Completed or pursuing 2 nd year of Diploma after 12 th in Agriculture	NA			
		3	12th standard passed	2 years of relevant experience			
		4	NSQF level 4 Certified person	3 years of relevant experience			
		5	NSQF level 4.5 Certified person	1.5 years of relevant experience			
		b. Age: 18 Years					
10.	Credits Assigned to this Qualification (as per National Credit Framework (NCrF))	18		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)	<input checked="" type="checkbox"/> Offline Only <input type="checkbox"/> Online Only <input type="checkbox"/> Blended					
		Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)
		Classroom (offline)	184	266	90	-	540
		Online	-	-	-	-	-
		(Refer Blended Learning Annexure for details)					
14.	Aligned to NCO/ISCO Code/s (if code is not available, then mention the same)	NCO: 2015/6113.0501					
15.	Progression Path After Attaining the Qualification (Please show Professional and Academic progression) (wherever applicable)	Polyhouse Specialist  Polyhouse Installation, Monitoring and Service Supervisor					
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:					

Polyhouse Installation, Monitoring and Service Supervisor

18.	Is the Job Role Amenable to Persons with Disability	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If "Yes", specify applicable type of Disability:</i>	
19.	How participation of women will be encouraged?	An increasing population of educated and working women needs inclusion, by formulating policy measures on skilling, job creation, and support services. Women comprises of >65% of the laborers among micro, small and medium enterprises. Opportunities for work that is proximate, child care facilities, safe transportation, gender acceleration plan and return to work (women to join back the workforce after motherhood) go a long way in increasing the proportion of women in the workforce. Higher attrition among women employment drive for the continuous training support for the industry. There is a need of incentive-based approach to encourage more women to join the agriculture industry in the clusters (Stipend / Job guarantee / Free training / Safety kit etc.).	
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it), wherever applicable	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input 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 (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: A. Balamurugan Email: agp@cutm.ac.in Contact No.: 9940111227 Website: https://cutm.ac.in	
23.	Final Approval Date by NSQC: 1 st Nov,2023	24. Validity Duration: 3 years	25. Next Review Date: 31 st Oct,2026

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

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

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

S.No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non- Core	NCrF/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT - Man	OJT - Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Plan and set up the polyhouse	CUTM/AGI/N1701 ,V.1.0	Core	5	2	10	20	30	0	60	30	50	-	20	100	15%
2	Preparation of land and installation of irrigation inside polyhouse	CUTM/ AGI/N1702, V.1.0	Core	5	2	10	20	30	0	60	30	50	-	20	100	15%
3	Monitor and maintain polyhouse	CUTM/ AGI/N1703, V.1.0	Core	5	3	40	50	0	0	90	30	50	-	20	100	20%
4	Suggest suitable Crop production and nursery management in polyhouse	CUTM/ AGI/1704, V.1.0	Core	5	3	40	50	0	0	90	40	50	-	10	100	20%
5	Post- harvest and marketing of polyhouse produce	CUTM/ AGI/N1705, V.1.0	Core	5	3	30	30	30	0	90	30	40	-	30	100	10%
6	Maintain Health and Safety at Work Place	CUTM/ AGI/N7805, V.1.0	Non-Core	5	3	30	60	0	0	90	30	70	-	0	100	10%
7	Employability Skills	DGT/VSQ/N0101, V.1.0	Non- Core	5	2	24	36	0	0	60	54	46	-	0	100	10%

Duration (in Hours) / Total Marks		5	18	184	266	90	0	540	244	356		100	700	100%
-----------------------------------	--	---	----	-----	-----	----	---	-----	-----	-----	--	-----	-----	------

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/N SQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks				
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total
1.	NA														
2.															
Duration (in Hours) / Total Marks															

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/N SQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks				
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total
1.	NA														
2.															
Duration (in Hours) / Total Marks															

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: 70% (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3 : Training related

1	Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	Degree in Agriculture or Botany or Biology with 3 years of industry-relevant experience and 1 year of Training experience
2	Master Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	Degree in Agriculture or Botany or Biology with 10 years of industry-relevant experience and 1 year of Training experience
3	Tools and Equipment Required for the Training	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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>	Degree in Agriculture or Botany or Biology with 3 years of industry-relevant experience and 1 year of assessment experience
2.	Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines) wherever applicable</i>	Graduate with 1 years of online Assessment experience
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines) wherever applicable</i>	Degree in Agriculture or Botany or Biology with 10 years of industry-relevant experience and 1 year of assessment experience
4.	Assessment Mode <i>(Specify the assessment mode)</i>	Offline/Online
5.	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(details to be provided in Annexure-if it is different for Assessment)</i>

Section 5: Evidence of Need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes, NSDC Skill gap report for Agriculture
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes, India Commercial Greenhouse Market Share _ Analysis_ 2022 – 2027, India Greenhouse Horticulture Market
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 42 Industry Validations
5.	Estimated nos. of persons to be trained and employed: 1000 in 3 years
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes, Line Minisrry approval _1759

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>	Mentioned in Annexure: Evidence of Level
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Mentioned in Annexure: Tools and Equipment
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Mentioned in Annexure: Detailed Assessment Criteria
4.	Annexure: Assessment Strategy <i>(Not Mandatory)</i>	Yes
5.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	Yes
6.	Annexure: Acronym and Glossary <i>(Optional)</i>	Mentioned in Annexure: Acronym and Glossary
7.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	Yes
8.	Supporting Document: Career Progression <i>(Optional - Public view)</i>	Yes
9.	Any other document you wish to submit:	NO

Annexure: 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	<p>Work in familiar, predictable, routine, situation of clear choice.</p> <ul style="list-style-type: none"> ● design, layout, survey of land and procurement of polyhouse materials ● Land preparation ● Irrigation system installation ● Fertigation system installation ● Polyhouse operation and maintenance ● Regular checking of the structure ● Replacing damaged/ non-working members of the structure ● Raising Seedling ● Plant transplanting ● Staking and trellising plants ● Nutrient management ● Pest management ● Harvesting 	<p>The Polyhouse Installation, Monitoring and Service Supervisor is aware of the land preparation activities, and harvesting and controlling of weeds.</p> <p>Hence it falls under Level 5.</p>	5

Professional and Technical Skills/ Expertise/ Professional Knowledge	Factual knowledge of field of knowledge or study. <ul style="list-style-type: none"> ● Designing the greenhouse with the consultation of experts ● Selection of suitable lands for constructing polyhouse ● Surveying and levelling the land ● Arranging construction materials ● Arrangement of skilled and unskilled labours ● Assist in installation of various structure materials of polyhouse ● Levelling the land ● Ploughing and harrowing the land ● Soil solarisation for pathogen free soil ● Raised bed preparation ● Calculation of drip materials requirement for polyhouse ● Procurement of drip irrigation requirement ● Installation of drip irrigation system ● Calculation of nutrients required ● Selection and installation of fertigation system ● Operation and maintenance of fertigation system ● Understanding micro climate changes in polyhouse ● Raising curtains, cover shade nets whenever required ● Operation of polyhouse instruments ● Periodically checking of structure to identify the damages 	<p>The Polyhouse Installation, Monitoring and Service Supervisor should have knowledge of the various processes and general concepts involved in Nutrient management and processing of various crops.</p> <p>Refer to evidence provided in adjacent column. Hence it falls under Level 5.</p>	5
---	---	---	---

	<ul style="list-style-type: none"> ● Regular monitoring the instruments workability ● Bed preparation for raising nursery ● Sowing the seeds of vegetables and flowers ● Watering the seedlings ● Selecting the healthy seedling for transplantation ● Transplanting the plants maintaining the crop geometry ● Water the polyhouse crops as per the crop need ● Application of water soluble fertilizers in the recommended quantity to promote the healthy growth of seedlings, vegetables and plants ● Application of micro nutrients ● Monitor the plants to identify the symptoms of pests and disease ● Application of proper pesticides and insecticides to control pest and disease infestation ● Check the maturity of flowers and vegetables grown in the polyhouse for harvest ● Harvest the flowers and vegetables using the appropriate tools and collect them in appropriate baskets and/ or containers 		
<p>Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill</p>	<p>Recall and demonstrate practical skill, routine and repetitive in narrow range of application</p> <ul style="list-style-type: none"> ● Receive instructions and seek advice from supervisors and managers ● Provide direction and instructions to coworkers / 	<p>The Polyhouse Installation, Monitoring and Service Supervisor should possess practical skill, routine and repetitive tasks involved in Land preparation, planting, weed control and plant protection using</p>	<p>5</p>

Polyhouse Installation, Monitoring and Service Supervisor

	<p>labourers</p> <ul style="list-style-type: none"> ● Customize a given technology of MIS or variants of technologies to farmer’s needs and priorities. ● Read and Understand Bill of Materials (Product Code & Description) ● Read Operational and Maintenance Manual ● Receive instructions and seek advice from supervisors and managers ● Listen carefully ● Make friendly and cordial communication with farmers at and off the fields ● Recall and demonstrate practical skills, routine and repetitive in a range of applications, using appropriate rule and tool. ● Troubleshooting: Determine what is causing an operating error and deciding what to do about it 	<p>appropriate tools while adhering to the operating procedure.</p> <p>Refer to evidence provided in adjacent column. Hence it falls under Level 5.</p>	
<p>Broad Learning Outcomes/Core Skill</p>	<p>Language to communicate written or oral, with required clarity, skill of basic arithmetic and algebraic principles, personal banking, basic understanding, understanding of social and natural environment</p> <ul style="list-style-type: none"> ● mention the data which are required for record keeping purpose and maintain the crop calendar ● report problems to the appropriate personnel in a timely manner ● get updated about the latest technologies used in precision 	<p>The Polyhouse Installation, Monitoring and Service Supervisor should be able to communicate effectively, must have knowledge of simple arithmetic operations with basic understanding of organisation procedures and policies and the healthy working environment.</p> <p>Refer to evidence provided in adjacent column. Hence it falls under Level 5.</p>	<p>5</p>

	<p>farming by reading the newspaper and magazines</p> <ul style="list-style-type: none"> ● keep abreast with the latest knowledge by reading brochures, pamphlets, and product information sheets ● maintain effective working relationships ● communicate clearly and effectively with others like customers, co-workers, company representatives, seniors and various other stakeholders ● understand information and grasp its meaning ● seek advice from seniors ● Make decisions pertaining to the concerned area of work ● Identify problems that may arise in carrying out tasks and take preventative action following workplace procedures ● Plan and design a poly house ● Monitor and maintain the condition of tools and equipment for set up, maintaining and running the poly house ● Monitor the environment inside the poly house ● Apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action 		
--	--	--	--

<p>Responsibility</p>	<p>Responsibility for own work and learning</p> <ul style="list-style-type: none"> ● Assist to set up the polyhouse ● Preparation of land and installation of irrigation inside polyhouse ● Operate and maintenance of polyhouse ● Crop production and nursery management in polyhouse 	<p>The Polyhouse Installation, Monitoring and Service Supervisor should have the responsibility for own work and learning.</p> <p>Refer to evidence provided in adjacent column. Hence it falls under Level 5.</p>	<p>5</p>
------------------------------	---	--	----------

Annexure: 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	drawing/installation plan		
2	materials for construction		
3	polyethene		
4	fertilizers		
5	cladding materials		
6	soil analysis report		
7	Herbicides		
8	weedicides		
9	inorganic and organic fertilizers		
10	documentation		
11	Drip materials requirement		
12	sample Crop calendar		
13	Pumps		
14	Micro Irrigation Products		
15	Piping Networks and other related equipment		
16	PVC & GI Fittings		
17	chemicals		
18	tools for installation of MIS		
19	curtains		
20	shade nets		
21	polyhouse instruments		
22	poly film		
23	cleaning material and tools		
24	Sample seeds of vegetables and flowers		

Polyhouse Installation, Monitoring and Service Supervisor

25	pesticides		
26	tools for staking		
27	Storage pest		
28	sample crop calendar		
29	packaging and parceling material		

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard, Marker, Duster, Projector, Laptop, PowerPoint Presentation
2. Training kit (Trainer guide, Presentations), Participant Handbook

Annexure: Industry Validations Summary

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	UCCI, Odisha	Brahma Mishra	President	No. 16, IRC Village, Nayapalli, Bhubaneswar, Odisha 751015	9437094999	brahmamishra@yahoo.co.in	NA
2	Global Agro Chem Pvt Ltd. Odisha	Sunshine Anand Swain	Director	Address- Paniora, Palaspur, Khurda, Odisha, Bhubaneswar-751001, India. Office at-Expo tower, Flat 4A/B, Nandakanan Road Bhubaneswar- 751024	7381050097	sunshine.aswain@gmail.com	NA
3	Grow Green Consortium Pvt Ltd, Odisha	Mr. Samarth Satya	Director	At – Plot No-5, Surya Vihar, Near – Union Bank, Nandankan Road, Bhubaneswar – 24, Odisha	8984810995	ggcpl.india@gmail.com	NA
4	Mahanadi Aqua Fresh, Odisha	Sri. A K Sharda	Director	At – Plot No-5, Surya Vihar, Near – Union Bank, Nandankan Road, Bhubaneswar – 24, Odisha	9437000635	aksharda@gmail.com	NA
5	S3 Agro Vision Pvt Ltd, Odisha	Ms. Shiree Sampanna	Director	At – Plot No-5, Surya Vihar, Near – Union Bank, Nandankan Road, Bhubaneswar – 24, Odisha	9437000635	contactus@s3agrovision.in	NA
6	Samlai Modern Farms Pvt Ltd, Odisha	Mr. Samarth Satya	Director	At – Plot No-5, Surya Vihar, Near – Union Bank, Nandankan Road, Bhubaneswar – 24, Odisha	9861244644	contactus@samlaihitechfarms.in	NA
7	Lubsam Consultancy Services PVT.LTD, Odisha	Mr. Pabitra Kumar Ojha	Manager	At-Kalinga Vihar, Bhubaneswar, Odisha	9938189166	Pabitra.ojha1990@gmail.com	NA
8	Orifood & Beverage Private Limited, Odisha	Manas Sree Kumar	General Manager	PLOT NO-980 TANGI,NH-16,CUTTACK-754022	9337235822		NA
9	Usman Agriculture Market Analysis, Odisha	Mr.Ajit Kumar Swain	Manager		760889445	Ajitswain087@gmail.com	NA
10	M/s. Aerotech Eng.	Mr. Habibullah	Director	Chaltaberiya, PO & PS: Duttapukur, Dist: North	9231397754	accounts@aerotechgree	NA

Polyhouse Installation, Monitoring and Service Supervisor

	Works Pvt Ltd, West Bengal			24 Parganas, West Bengal – 743248		nhouse.com	
11	BASIX Krishi Samuddhi Limited(BKSL),Odisha	Pravat K. Nayak	Assistant Vice President	IBL House, T-1,Third floor, Plot No-1494/1524 Tankapani Road,Near Sai Mandir,Badagada,Bhubaneswar,Odisha - 751018	7008102657	Pravatpoorbi78@gmail.com	NA
12	Bapuji Rural Enlightenment and Development Society	A. Ramakrishna Raju	CEO BREDS	Adress: MIG-33, Door No. 39-33-33, Vuda colony, Phase-1, Madhavadhara, Visakhapatnam, Andhra Pradesh- 530018	Phone: 8917967513 Cell: 9347346900	bredsorg@yahoo.co.in, Web: www.bredsindia.org	NA
13	Choudhury Agro INDUSTRIES	AT- Choudhury Agro industries Gundadwar, Badamba, Odisha	NA	NA	NA	NA	NA
14	ESSE Natural And Nutritions Private Limited.	Dr.Durga Prasad Padhi	Managing Director	Plot No.1,IDCO Industrial Estate,Village:Ramaswamipur Paralakhemundi,Dist.Gajapati Odisha -761200	9437618075	md@gramtarangfoods.in	NA
15	Ganapati Agro	NA	NA	Bhagabanpur, Patrapada, Bhubaneswar	0674-2490392	NA	NA
16	Gram Tarang Insurance Broking Pvt.limited	NA	Kalyan Chakrabarti	Flat no.501,AKRUTHI VIJAYALAKSHMI RESIDENCY, GURUDWARA,VISAKHAPATNAM-530013	NA	NA	NA
17	Gram Tarang Foods Testing Lab Pvt.Ltd	Dr. Preetha Bhadra	Managing Director	Plot No.1, IDCO Industrial Estate, Main Road, Paralakhemundi, Odisha 761200	9073388391	prreetha.bhadra@cutm.ac.in	NA
18	Gram Tarang Inclusive Development Services Pvt.Ltd	NA	NA	Door No: 39-33-33, 1st Floor, B-107, Vuda Colony, Madhavadhara, Visakhapatnam - 530018	7382092355	Venkat@gramtarang.org	NA
19	Gram Tarang Technologies Private Limited	Babu Sankar	Managing Director	B 107 ,KSR Pleasant Valley Madhavadhara , Vishakapatnam. India 5300 018	9840015963	info@thegttech.com	NA
20	Jagannath Agro Industries	NA	NA	Address- Jagatpur Industries Area, Cuttack, Odisha, 753009, India	NA	NA	NA
21	KATHYA AGRO-INDUSTRIES PRIVATE LIMITED	NA	NA	98/A BADADHANAPUR, DURGAPURPATNA PO-BANKUAL, TANKAPANI ROAD, PS-SAHIDNAGAR BHUBANESWAR Khordha OR 751002 IN	NA	NA	NA

Polyhouse Installation, Monitoring and Service Supervisor

22	Kulamani Agro	NA	NA	AT- Ramachandrapur, near Malia Chaka, Asureswar, Odisha 754209	NA	NA	NA
23	Mahalaxmi AGRO Industries	NA	NA	Malipada near sum hospital Bhubaneswar Odisha , Aul, India, Odisha	NA	NA	NA
24	Mahindra Agri Solution Ltd.	Ashok Singamsetti	Associate Breeder-Corn	Hyderabad, Telangana, India	9000630620	ashok.singamsetti@mahindra.com	NA
25	MARSCO Nutreceptual Pvt.Limited	Mahidhar Bolem	Managing Director	#1-11-238/401,Flat no.401,Sri Ganesh Nivas,Begumpet,Hydrabad - 500016	8099778888	Mahidhar.boleam@marsco.in	NA
26	MAA BYAGHRADEVI AGRO INDUSTRY	NA	NA	AT- Main road, Dadarlunda, Gunduribadi, Odisha 761132	NA	NA	NA
27	Megam Foundation	NA	NA	1 st floor,6 th street ,Sri Aiyappa Nagar ,3 rd Main,Semhil Nagar,Chennai	NA	NA	NA
28	Paiditalamma Farmer Producer Company Limited	Mr.Narendra Verma	CEO	D.NO.2-13,KRISHNA VILLAGE,PUSAPATIREGA MANDAL,VIZIANAGARAM,ANADRA PRADESH	8917689768	paidithallamafpc@gmail.com	NA
29	Ram's Assorted Cold Storage Ltd.	Aditya Dash	Director	A-54/1 & A55/1, Baramunda, Bhubaneswar-751003	9937000186	NA	NA
30	Rameswar AGRO Industries Pvt. Ltd	NA	NA	AT- Kalinga Vihar, Patrapada, Bhubaneswar, Odisha 751019	0674 -2491662	info@ramagro.org.in	NA
31	S S foods Pvt Ltd.	Amit Sahoo	Director	At / Po – Anguru, Via – JK Pur, Rayagada - 765017	9437000635	ssfoods@gmail.com	NA
32	Shreejew Agro Industries Corporation Ltd.	NA	NA	7V22+W7Q,Badagada Village,Pandav Nagar ,Bhubaneswar,Odisha	NA	NA	NA
32	Sri Akulamma Thalli FPCL	NA	NA	00-11, Praharajapalem, Pathapatnam, Srikakulam Dist- 532215	NA	NA	NA
33	Udyam Vikas Farmer Producer Company Limited	Ayub Naeka	NA	Parlakhemundi,Gajapati ,Odisha ,India-	8144356823	udyamvikasfpc@gmail.com	NA
34	UNISEM AGRITECH PW LTD	Shivakumar.S H	Sr.Manager HR &	Unit shed No. C-6, Industrial Area, Nekara Colony. P B Road, Ranebennur- 581 1 15. Dist:	9741077783	Shivakumarsh.unisemagritech@gmail.com	NA

Polyhouse Installation, Monitoring and Service Supervisor

			Admit	Haveri, State:Karnataka.			
35	Unitriveni Overseas	Mr. Pravat Kumar Dash	General/Manager	22/22, Prince Gulam Mohammed Sheh Road, Kolkata- 700 095	9338229557	Prabhat.imsindia@gmail.com	NA
36	YKLIBA – YAWAN KISSAN LIBRARY FOR INFORMATION & BROADCASTING RESOURCE AUTHORITY (YK-LIBRA)	Rashmi Ranjan Biswal	Project Head	EB-313,Badagada Colony,Bhubaneswar,Dist:Khordha,Odisha ,Pin-751018 Brit	9937173848	Yklibra2007@gmail.com	NA
37	M/s Sreeragam Exports Pvt. Lmt.	Aparajita Brahma	Asst.Plant Manager	Bent,Champagarh,Chandpur,Dist:Nayagarh-752024,Odisha,India	7008526617	aparajita@sreeragamexports.com	NA
38	Dhenkanal Fruits And Vegetables Marketing Company Limited	Sanjeev Kumar Chadha	Deputy Director	Horticulture Dhenkanal, Odisha, 759001 India	9938883393	dfvmc@gmail.com	NA
39	KRISHNA MARINE EXPORT PRIVATE LIMITED	Anjan Kumar Samanta	Manager	Paradip, Odisha,India	9861254760	krishnamarine@gmail.com	NA
40	SAARAS BREEDING FARM PRIVATE LIMITED	Sarat Chandra Meher	NA	JAIL LINE PADA,PATNAGARH,Bolangir, Balangir, Odisha, 767025 India	9090244185	sbfp@gmail.com	NA
41	SANKAR ENTERPRISES	Sankar Sethi	Director	Tata Benz Square, Giri Road, Berhampur, Tata Benz Square, Giri Road, Berhampur, Berhampur, Ganjam, Odisha, 760005 India	9438564232	sankarenterprises@gmail.com	NA
42	MANAKSHYA ASSOCIATES PRIVATE LIMITED	Ashok Kumar Agarwal	CEO	Plot no- A 142 SEC A B MANCHESWAR INDUSTRIAL, BBSR Bhubaneswar, Odisha, 751021 India	9439872452	mankashassociate@gmail.com	NA

Annexure: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2024	100	100	40	40	-	-
2025	400	400	160	160	-	-
2026	500	500	200	200	-	-

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
NA													

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

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

1. NA
- 2.

Content availability for previous versions of qualifications:

Participant Handbook Facilitator Guide Digital Content Qualification Handbook Any Other:

Languages in which Content is available: English

Polyhouse Installation, Monitoring and Service Supervisor

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	<input type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge	NA	
2	<input type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
3	<input type="checkbox"/> Showing Practical Demonstrations to the learners		
4	<input type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		
5	<input type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice		
6	<input type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	<input type="checkbox"/> On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training		

Annexure: Detailed Assessment Criteria

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

NOS / Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
CUTM/AGI/N1701 : Plan and set up the polyhouse	<i>Assist in design, layout, survey of land and procurement of polyhouse materials</i>				
	PC1. Designing the greenhouse with the consultation of experts	3	5	-	2
	PC2. Selection of suitable lands for constructing polyhouse	3	5	-	2
	PC3. Surveying and levelling the land	2	5	-	1
	PC4. Analyse the foundation strength for polyhouse construction	2	5	-	1
	PC5. Make polyhouse drawing/ installation plan for polyhouse structure	2	6	-	2
	PC6. Select the quality materials for construction	3	6	-	2
	PC7. Find the different locations for material procurement	2	5	-	2
	<i>Arrange the required resources</i>				
	PC8. Arranging construction materials	3	5	-	1
	PC9. Arrangement of skilled and unskilled labours	2	-	-	1
	<i>Assisting in setting up the polyhouse</i>				

Polyhouse Installation, Monitoring and Service Supervisor

	PC10. Assist in installation of various structure materials of polyhouse	1			1
	PC11. Join various structural members of polyhouse	1	4	-	3
	PC12. Covering the polyethylene over structure without wrinkles and damage	3	-	-	
	PC13. Installing the shadenet and insect proof nets	3	4	-	2
	NOS Total	30	50		20
CUTM/AGI/N1702 : Preparation of land and installation of irrigation inside polyhouse	<i>Land preparation</i>				
	PC1. Levelling the land	3	8	-	1
	PC2. Ploughing and harrowing the land	3	8	-	1
	PC3. Soil solarization for pathogen free soil	3	8	-	1
	PC4. Raise bed preparation	2	-		1
	<i>Irrigation system installation</i>				
	PC5. Measure the area required to install irrigation system	-	8	-	1
	PC6. Calculation of drip materials requirement for polyhouse	1	-	-	-
	PC7. Procurement of drip irrigation requirement +	3	-	-	3
	PC8. Installation of drip irrigation system	3	-		3
	PC9. Skill to operate and maintain the drip irrigation system	3	10	-	3
	<i>Fertigation system installation</i>				
PC10. Calculation of nutrients required	3	8	-	3	
PC11. Selection and installation of fertigation system	3	-	3	3	

	PC12. Operation and maintenance of fertigation system	3	-	-	-
	NOS Total	30	50	-	20
CUTM/AGI/N1703 : Monitor and maintenance of polyhouse	<i>Polyhouse operation and maintenance</i>				
	PC1. Understand micro climate changes in polyhouse	10	5	-	1
	PC2. Raising curtains, cover shade nets whenever required	3	5	-	2
	PC3. Monitor of polyhouse instruments	10	5	-	1
	PC4. Washing of polyfilm ate regular interval	1	5	-	2
	PC5. Painting of structural members to avoid rusting	1	3	-	1
	PC6. Liming of polyfilm during summer to reduce sunlight intensity	1	5	-	1
	<i>Regular checking of structure</i>				
	PC7. Periodically checking of structure to identify the damages	1	5	-	3
	PC8. Regular monitoring the instruments workability	1	5	-	1
	<i>Regular checking of structure</i>				
	PC9. Replacing the broken profiles/ springs	1	5	-	3
	PC10. Pasting the damaged polyfilms with UV stabilized tapes	1	7	-	5
	NOS Total	30	50	0	20
	<i>Raising seedlings</i>				

CUTM/AGI/N1704 : Suggest suitable Crop production and nursery management in polyhouse	PC1. Suggest suitable seed selection of vegetables and flower for polyhouse	-	-	-	3
	PC2. Calculation of vegetable or flower seeds required for polyhouse	-	3	-	-
	PC3. Suggest suitable bed preparation for raising nursery	-	3	-	-
	PC4. Sowing the seeds of vegetables and flowers	-	3	-	-
	PC5. Suggest watering the seedlings	3	-	-	1
	PC6. Suggest providing required nutrition	3	3	-	1
	PC7. Suggest applying the pesticide if required	3	3	-	1
	<i>Plant transplanting</i>				
	PC8. Selecting the healthy seedling for transplantation	-	2	-	-
	PC9. Transplanting the plants maintaining the crop geometry	-	3	-	-
	PC10. Watering the transplanted plants.	-	2	-	-
	PC11. Gap filling by replacing the dead plants	-	1	-	-
	PC12. Learning to give proper support for the crops	2	3	-	1
	PC13. Staking procedure for crops like cucumber, tomato and capsicum	2	3	-	1
	<i>Plant transplanting</i>				
	PC14. Water the polyhouse crops as per the crop need	3	3	-	1
PC15. Application of water soluble fertilizers in the recommended quantity to promote the healthy growth of seedlings, vegetables and plants	3	2	-	1	
PC16. Application of micro nutrients	2	2	-	-	

	<i>Pest management</i>				-
	PC17. Monitor the plants to identify the symptoms of pests and disease	2	1	-	-
	PC18. Application of proper pesticides and insecticides to control pest and disease infestation	5	1	-	-
	PC19. Remove the dead and damaged seedlings, vegetables, flowers and plants at regular interval	4	1	-	-
	PC20. Application of herbicides and weedicides and carry out manual weeding to prevent unwanted growth in the polyhouse	3	1	-	-
	<i>Harvesting</i>	-	-	-	-
	PC21. Check the maturity of flowers and vegetables grown in the polyhouse for harvest	2	1	-	1
	PC22. Harvest the flowers and vegetables using the appropriate tools and collect them in appropriate baskets and/ or containers	2	7	-	2
	PC23. Store the harvested flowers and vegetables at the recommended temperature, humidity and hygienic conditions	1	2	-	-
	NOS Total	40	50	-	10
CUTM/AGI/N1705 : Post-harvest and marketing of polyhouse produce	<i>Sorting and grading of produce</i>				
	PC1. Storing the harvested yield in safe place	3	3	-	5
	PC2. Maintain the storage pest	2	3	-	5
	PC3. Sort and grade the flowers with proper dimension and quality	3	8	-	3

, Monitoring and Service Supervisor

	PC4. Sort and grade the vegetables with proper size and size	3	8	-	4
	PC5. Packaging and parceling methods	2	9	-	3
	<i>Marketing of polyhouse produce</i>				
	PC6. Identify the right market place for polyhouse produce	7	4	-	5
	PC7. Transporting vegetables and flowers without damaging the produce	10	5	-	4
	NOS Total	30	40	0	30
CUTM/AGI/N7805 : Ensure organizational health, safety and security for self and others	<i>Recognize and address the hazards in the sector</i>	-	-	-	-
	PC1. identify different kinds of possible hazards (environmental, personal, ergonomic, and chemical) at the workplace	2	3	-	-
	PC2. recognize other possible security issues existing in the workplace	2	3	-	-
	PC3. plan safety techniques for self and others	2	3	-	-
	PC4. recognize different measures to curb the hazards	2	3	-	-
	PC5. implement programs for health, safety, and security of the people at the workplace	2	3	-	-
	PC6. communicate the safety plans to everyone at the workplace	2	3	-	-
	PC7. attach disciplinary rules with the implementation at the workplace	2	3	-	-
	<i>Ensure organizational health, safety and security for self and others</i>	-	-	-	-
	PC8. comply with regulatory health and safety guidelines applicable to the workplace	2	3	-	-
	PC9. use and maintain protective equipment as per requirement in a production house	2	3	-	-

	PC10. ensure organizational activities in line with approved guidelines and procedures	1	4	-	-
	PC11. undertake and advise healthy lifestyle for self and others	1	4	-	-
	PC12. follow environment management system related procedures	1	4	-	-
	PC13. ensure storage of materials and tools in line with manufacturers and Cooperative Society/NGO/SHG requirements	1	4	-	-
	PC14. ensure safe handling and disposal of waste and debris	1	4	-	-
	PC15. minimize health and safety risks to self and others due to own actions	1	4	-	-
	PC16. monitor the work place and work processes for potential risks and threats to self and others	1	4	-	-
	PC17. carry out periodic check to keep work area free from hazards and obstructions	1	3	-	-
	PC18. ensure participation of self and others in mock drills/ evacuation procedures organized at the workplace	1	3	-	-
	PC19. organize first aid, fire-fighting and emergency training sessions for others	1	3	-	-
	PC20. instruct and guide others to take action in the event of fire, emergencies or accidents	1	3	-	-
	PC21. follow Cooperative Society/NGO/SHG procedures for evacuation when required	1	3	-	-
	NOS Total	30	70	-	-
DGT/VSQ/N0101 Employability Skills	PC1. Introduction to Employability Skills	4	-	-	-
	PC2. Constitutional values – Citizenship	4	-	-	-
	PC3. Becoming a Professional in the 21st Century	12	-	-	-
	PC4. Basic English Skills	6	6	-	-
	PC5. Career Development & Goal Setting	3	3	-	-
	PC6. Communication Skills	3	5	-	-
	PC7. Diversity & Inclusion	4	-	-	-

, Monitoring and Service Supervisor

	PC8. Financial and Legal Literacy	4	6	-	-
	PC9. Essential Digital Skills	6	10	-	-
	PC10. Entrepreneurship	2	6	-	-
	PC11. Customer Service	2	4	-	-
	PC12. Getting Ready for Apprenticeship & Jobs	4	6	-	-
	Total	54	46	-	-
	NOS Total	244	356	-	100

Annexure: Assessment Strategy

Annexure: Assessment Strategy

1. Assessment System Overview:

- Batches would be assigned to Assessment Agencies as per the sectors for conducting assessment on CUTM portal or by email.
- Assessment agencies will have to give a confirmation regarding the assigned batches and share the particular Question set to Centurion University.
- Assessment agency deploys the ToA certified Assessor for conducting the assessment from the pool of verified assessor by Centurion University.
- Centurion University will monitor the assessment process and keep the records online or offline (wherever needed)

2. Procedure at Testing Centre:

- Check the Assessment location, date and time
- Maximum batch size will be of 30.
- Assessor will Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Assessor will ensure all the equipment's and required materials are available at the testing centre.

3. Assessment Quality Assurance:

- Question bank is created by the Subject Matter Experts (SME) of Assessment Agencies verified by Centurion University.
- Questions are mapped to the specified assessment criteria
- Assessor must be ToA certified & trainer must be ToT Certified
- Surprise visit would be done time to time.

4. Assessment Evidence collection:

- Geo tagged photographs of assessment sessions would be captured by the Assessor.
- Video call verification will be done by Centurion University during assessment and keep the recorded videos.

5. Document storing:

- Hard copies will be stored in the respective files.
- Some of documents will kept in both soft copies and hardcopies.
- All the assessment related data will be kept in CUTM portal.

On the Job:

1. Each module will be assessed separately.
2. The candidate must score 70% in each module to successfully complete the OJT.

Polyhouse Installation, Monitoring and Service Supervisor

3. Acquiring job-specific technical skills related to the industry or field.
4. Learning how to operate and maintain relevant tools, equipment, and machinery.
5. Gaining proficiency in tasks and procedures directly related to the job role.
6. Developing problem-solving skills by addressing real-time challenges encountered on the job.
7. Learning to troubleshoot issues and find practical solutions.
8. Enhancing verbal and written communication skills in a professional context.
9. Learning how to communicate effectively with colleagues, superiors, and clients.
10. Learning to prioritize tasks and manage time efficiently to meet deadlines.
11. Understanding the importance of time management in a work setting.
12. Developing skills related to customer interaction, satisfaction, and conflict resolution.
13. Understanding how to address customer needs and provide excellent service.
14. Understand the working of various tools and equipment

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