



QUALIFICATION FILE

Seed Production 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

Table of Content

Mandatory NOS/s:.....	6
Elective NOS/s:	7
Optional NOS/s:	7
Section 3: Training Related	8
Annexure: Industry Validations Summary	18
<input type="checkbox"/> Participant Handbook <input type="checkbox"/> Facilitator Guide <input type="checkbox"/> Digital Content <input type="checkbox"/> Qualification Handbook <input type="checkbox"/> Any Other:.....	22
Annexure: Blended Learning	23
Annexure: Detailed Assessment Criteria	24
Detailed assessment criteria for each NOS/Module are as follows:	24

Section1: Basic Details

1.	Qualification Name	Seed Production Supervisor	
2.	Sector/s	Agriculture	
3.	Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing/previous qualification: <i>(change to previous, once approved) :</i> NA	Qualification Name of existing/previous version: NA
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	NA	
5.	National Qualification Register (NQR) Code &Version <i>(Will be issued after NSQC approval)</i>	QG-05-AG-01262-2023-V1-CUTM	6. NCrF/NSQF Level: 5
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate - Seed Production Supervisor	
8.	Brief Description of the Qualification	To acquaint an individual with conventional and modern breeding methods and its viable application in varietal development, to impart comprehensive knowledge to get seed production in vegetable and cereal crops with adequate practical training, To apprise with the legislative provisions and processes as well as the mechanisms of quality control and seed certification.	
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience:	

		b. Age: <18 Years> <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>S. No.</td> <td>Academic/Skill Qualification (with Specialization - if applicable)</td> <td>Relevant Experience (with Specialization - if applicable)</td> </tr> <tr> <td>1</td> <td>Completed 2nd year of degree in Agriculture , Botany, Biology</td> <td>NA</td> </tr> <tr> <td>2</td> <td>Pursuing 2nd year of degree in Agriculture , Botany, Biology</td> <td>NA</td> </tr> <tr> <td>3</td> <td>Completed 2nd year of Diploma after 12th in Agriculture</td> <td>NA</td> </tr> <tr> <td>4</td> <td>Pursuing 2nd year of Diploma after 12th in Agriculture</td> <td>NA</td> </tr> <tr> <td>5</td> <td>NSQF Level 4 Certification in the similar field</td> <td>3 years of relevant experience</td> </tr> <tr> <td>6</td> <td>NSQF level 4.5 Certified person</td> <td>1.5 years of relevant experience</td> </tr> </tbody> </table>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Relevant Experience (with Specialization - if applicable)	1	Completed 2nd year of degree in Agriculture , Botany, Biology	NA	2	Pursuing 2nd year of degree in Agriculture , Botany, Biology	NA	3	Completed 2nd year of Diploma after 12th in Agriculture	NA	4	Pursuing 2nd year of Diploma after 12th in Agriculture	NA	5	NSQF Level 4 Certification in the similar field	3 years of relevant experience	6	NSQF level 4.5 Certified person	1.5 years of relevant experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																									
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Relevant Experience (with Specialization - if applicable)																									
1	Completed 2nd year of degree in Agriculture , Botany, Biology	NA																									
2	Pursuing 2nd year of degree in Agriculture , Botany, Biology	NA																									
3	Completed 2nd year of Diploma after 12th in Agriculture	NA																									
4	Pursuing 2nd year of Diploma after 12th in Agriculture	NA																									
5	NSQF Level 4 Certification in the similar field	3 years of relevant experience																									
6	NSQF level 4.5 Certified person	1.5 years of relevant experience																									
10. Credits Assigned to this Qualification, Subject to Assessment <i>(as per National Credit Framework (NCrF))</i>	18	11. Common Cost Norm Category (I/II/III) <i>(wherever applicable):</i> II																									
12. Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	NA																										
13. Training Duration by Modes of Training Delivery <i>(Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</i>	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>214</td> <td>226</td> <td>100</td> <td>-</td> <td>540</td> </tr> <tr> <td>Online</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p><i>(Refer Blended Learning Annexure for details)</i></p>			Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	214	226	100	-	540	Online	-	-	-	-	-						
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																						
Classroom (offline)	214	226	100	-	540																						
Online	-	-	-	-	-																						
14. Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO 2015/ 6130.0201																										

15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Professional progression: Seed Production Specialist ↑ Seed Production 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:	
18.	Is the Job Role Amenable to Persons with Disability	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If “Yes”, specify applicable type of Disability:	
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 labourers 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 <i>(Specify the NOS/Module which covers it)</i>	<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 <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: A. Balamurugan Email: qp@cutm.ac.in Website: https://cutm.ac.in Contact No.: 9940111227	
23.	Final Approval Date by NSQC: : 1st 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/NS QF Level	Credits as per NCF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT - Man	OJT - Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Identification of Seed production method, set-up storage and monitor for Vegetables types	CUTM/N1901, V.1.0	Core	5	3	40	30	20	0	90	30	40	0	30	100	20%
2	Identification of Seed production method, set-up storage and monitor for Cereal Crops	CUTM/N1902, V.1.0	Core	5	3	40	30	20	0	90	40	60	0	0	100	20%
3	Identification of Seed production method, set-up storage and monitor for Fruits types	CUTM/N1903, V.1.0	Core	5	3	40	30	20	0	90	40	60	0	0	100	20%
4	Seed Certification and Seed Quality Testing	CUTM/N1904, V.1.0	Core	5	4	40	40	40	0	120	30	70	0	0	100	20%

5	Ensure organizational health, safety and security for self and others	CUTM/N7805, V.1.0	Non-Core	5	3	30	60	0	0	90	30	40	0	30	100	10%
6	Employability Skills	DGT/VSQ/N0101	Non-Core	5	2	24	36	0	0	60	46	54	0	0	100	10%
Duration (in Hours) / Total Marks				5	18	214	226	100	0	540	216	324	0	60	600	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	Weightage (%) (if applicable)
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	Weightage (%) (if applicable)
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) (as per NCVET guidelines)	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) (as per NCVET guidelines)	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 (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	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) (as per NCVET guidelines) wherever applicable	Graduate with 1 year of online Assessment experience
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines) wherever applicable	Degree in Agriculture or Botany or Biology with 10 years of industry-relevant experience and 1 year of Assessment experience
4.	Assessment Mode (Specify the assessment mode)	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 (details to be provided in Annexure-if it is different for Assessment)

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, India Seed Market Analysis - Industry Report - Trends, Size _ Share, Seed Industry in India_ Market Trends, Structure, Growth, Key Players and Forecast 2023-2028
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes, Indian seed 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 Minisrtry approval _1759 If "No", why:

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>A job that required well developed skill, with clear choice of procedures in familiar context</p> <ul style="list-style-type: none"> ● Emasculation and pollination technique for hybrid seed production ● Variety and hybrid seed production of cereals and vegetable crops ● Physical and genetic purity test of quality seed production ● Knowledge on seed policy and different rules and regulation involved in seed certification ● Information about Indian Minimum Seed Certification Standards and principles, phases and procedures of field inspection. ● Knowledge on grant of certificate and procedures of seed marketing ● Practical expertise on seed quality testing like moisture test, germination test, viability test etc. ● Knowledge on seed sampling methods and control measures of stored grain pest and disease 	<p>An individual is aware of the different techniques for seed production along with the knowledge on grant of certificate and procedures of seed marketing.</p> <p>Hence it falls under Level 5.</p>	5
Professional and Technical Skills/ Expertise/ Professional Knowledge	<p>Knowledge of facts, principles, processes and general concepts, in a field of work or study</p> <ul style="list-style-type: none"> ● Floral biology in self- and cross-pollinated species 	<p>An individual should have knowledge of the DNA isolation, selection methods, seed extraction methods, etc.</p>	5

	<ul style="list-style-type: none"> ● Emasculatation and hybridization techniques in different crops like Paddy, Tomato, Brinjal etc. ● Selection methods in segregating populations and evaluation of breeding material ● Growing different genotypes of a crop using appropriate experimental design. ● Harvesting of F1 seeds and check the hybrid (F1) fidelity using molecular markers. ● DNA isolation, DNA purity and quantification tests ● DNA finger printing using PCR-based DNA markers ● Determination of planting ratios and practice on seed production of varieties for hybrid seed production of cereals and vegetables ● Study of floral biology of vegetable crops like Tomato, Brinjal and Okra ● Seed extraction methods and their effect on quality of vegetables ● Molecular test for pre- and post-harvest quality control ● Biochemical test for pre- and post-harvest quality control ● Learn the seed sampling methods ● Physical Purity test ● Moisture test ● Germination and Vigour test ● Viability test 	<p>Refer to evidence provided in adjacent column. Hence it falls under Level 5.</p>	
--	--	---	--

	<ul style="list-style-type: none"> Control measures for stored grain disease and pest 		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	<p>A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information</p> <ul style="list-style-type: none"> Phenotypic screening techniques for biotic and abiotic stress resistance in different crops Evaluating the mapping populations like RIL, NIL, etc. Demonstration of Molecular marker techniques to identify useful traits in different crops and special breeding techniques Pollen germination to study time of anthesis and stigma receptivity Mutation breeding practices, raising and evaluation of segregating populations How to handle instruments like PCR, Gel electrophoresis etc. 	<p>An individual should possess practical skill, routine and repetitive tasks involved in seed production.</p> <p>Refer to evidence provided in adjacent column. Hence it falls under Level 5.</p>	5
Broad Learning Outcomes/Core Skill	<p>Desired mathematical skills; understanding of social, political; and some skill in collecting and organizing information and communication</p> <ul style="list-style-type: none"> Able to read drawings, instructions, and material spec, etc. Discuss task lists, schedules, and workloads with co-workers. Construct simple sentences and express ideas clearly through written communication. 	<p>An individual 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>	5

	<ul style="list-style-type: none"> ● Support operator in using specific problem-solving techniques and detailing out problems. ● Discuss possible solutions with operator for problem-solving. ● Plan and organize work order and jobs received from internal customers/operator. ● Organize all preprocess/equipment manuals so that sorting out. ● Follow instructions and work on areas of improvement identified. ● Complete assigned tasks with minimum supervision. ● Complete the job defined by the operator within the timelines and quality. ● Use common sense and make judgments during day-to-day basis. ● Use basic reasoning skills to identify and resolve basic problems. ● Use intuition to detect any potential problems which could arise during operations 		
--	---	--	--

<p>Responsibility</p>	<p>Responsibility for own work and learning and some responsibility for others' works and learning</p> <ul style="list-style-type: none"> ● Breeding Methods: Conventional and Molecular Approach ● Seed Production of Vegetable and Cereals Crops ● Seed Certification and Seed Quality Testing ● Health and safety with effective and efficient way 	<p>An individual 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: 25

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	F1 seeds		10 types
2	molecular markers		1
3	Genetic basis and breeding methods in self-pollinated and cross-pollinated crops.		1
4	PCR-based DNA Markers		1
5	Planting material		10 sets
6	samples of cereal crops		10 sets
7	samples of vegetables		10 sets

Classroom Aids

1. The aids required to conduct sessions in the classroom are:
2. Whiteboard, Marker, Duster, Projector, Laptop, PowerPoint Presentation
3. 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.ca	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. Works Pvt Ltd, West Bengal	Mr. Habibullah	Director	Chaltaberiya, PO & PS: Duttapukur, Dist: North 24 Parganas, West Bengal – 743248	9231397754	accounts@aerotechgreenhouse.com	NA
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	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:	bredsorg@yahoo.co.in Web:	NA

	Society				9347346900	www.bredsindia.org	
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
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	Mahidhar Bolem	Managing	#1-11-238/401,Flat no.401,Sri Ganesh	8099778888	Mahidhar.boleam@mar	NA

	Nutraceutical Pvt.Limited		Director	Nivas,Begumpet,Hydrabad - 500016		so.in	
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	O674 -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 & Admit	Unit shed No. C-6, Industrial Area, Nekara Colony. P B Road, Ranebennur- 581 1 15. Dist: Haveri, State:Karnataka.	9741077783	Shivakumarsh.unisem agritech@gmail.com	NA
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	Rashmi Ranjan Biswal	Project Head	EB-313,Badagada Brit Colony,Bhubaneswar,Dist:Khordha,Odisha ,Pin-751018	9937173848	Yklibra2007@gmail.com	NA e

	AUTHORITY (YK-LIBRA)						
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, Berhmapur, 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.

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

1. NA

Content availability for previous versions of qualifications:



Participant Handbook



Facilitator Guide



Digital Content



Qualification Handbook



Any Other:

Languages in which Content is available: Hindi

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 Code / Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
CUTM/AGI/N1901, V.1.0 : Identification of Seed production method, set-up storage and monitor for Vegetables types	PC1. Floral biology in self- and cross-pollinated species	2	3	-	2
	PC2. Emasculation and hybridization techniques in different crops like Paddy, Tomato, Brinjal etc.	2	4	-	2
	PC3. Selection methods in segregating populations and evaluation of breeding material	3	3	-	3
	PC4. Growing different genotypes of a crop using appropriate experimental design	2	3	-	3
	PC5. Harvesting of F ₁ seeds and check the hybrid (F ₁) fidelity using molecular markers	2	3	-	3
	PC6. DNA isolation, DNA purity and quantification tests	3	5	-	3
	PC7. DNA finger printing using PCR-based DNA markers	3	3	-	2
	PC8. Gel electrophoresis and scoring and data analysis for tagging and phylogenetic relationship	3	4	-	2
	PC9. Estimation of heterosis, inbreeding depression and heritability	2	3	-	2
	PC10. Learning techniques in hybrid seed production using male-sterility in field crops	2	3	-	2
	PC11. Male sterile line creation in crop plants, problems in creation of CGMS system, ways of overcoming them	3	3	-	3

	PC12. Use of standard MAS procedures- screening crops for resistant to different biotic and abiotic stress traits	3	3	-	3
	NOS Total	30	40	0	30
CUTM/AGI/N1902, V.1.0 : Identification of Seed production method, set-up storage and monitor for Cereal Crops	PC1. Selection of suitable areas/locations and seed/planting material for quality seed production	10	20	-	-
	PC2. Determination of planting ratios and practice on seed production of varieties for hybrid seed production of cereals and vegetables	10	10	-	-
	PC3. Study of floral biology of vegetable crops like Tomato, Brinjal and Okra	10	10	-	-
	PC4. Seed extraction methods and their effect on quality of vegetables	10	20	-	-
	NOS Total	40	60	-	-
CUTM/AGI/N1903, V.1.0 : Identification of Seed production method, set-up storage and monitor for Fruits types	PC1. Selection of suitable areas/locations and seed/planting material for quality seed production	10	10	-	-
	PC2. Determination of planting ratios and practice on seed production of varieties for hybrid Fruits	10	10	-	-
	PC3. Study of floral biology of fruit crops like Mango, Gua, and Avagoda	10	15	-	-
	PC4. Seed extraction methods and their effect on quality of Fruits	10	25	-	-
	NOS Total	40	60	-	-
	PC1. Identification of weed and other crop seeds as per specific crops.	2	4	-	-
	PC2. Field inspection at different stages of a crop.	2	4	-	-

CUTM/AGI./N1904 , V.1.0: Seed Certification and Seed Quality Testing	PC3. Inspection and sampling at harvesting/threshing	2	4	-	-
	PC4. Inspection and sampling at processing and after processing.	2	4	-	-
	PC5. Specifications for tags and labels to be used for certification purpose.	2	5	-	-
	PC6. Varietal Identification through Grow Out Test.	2	9	-	-
	PC7. Varietal Identification through Electrophoresis.	2	10	-	-
	PC8. Molecular test for pre- and post-harvest quality control.	2	10	-	-
	PC9. Biochemical test for pre- and post-harvest quality control.	2	5	-	-
	PC10. Learn the seed sampling methods	2	5	-	-
	PC11. Physical Purity test	2	2	-	-
	PC12. Moisture test	2	2	-	-
	PC13. Germination and Vigour test	2	2	-	-
	PC14. Viability test	2	2	-	-
	PC15. Control measures for stored grain disease and pest	2	2	-	-
	NOS Total	30	70	-	-

CUTM/AGI/N7805, V.1.0 : 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	1	-	2
	PC2. recognize other possible security issues existing in the workplace	2	1	-	2
	PC3. plan safety techniques for self and others	2	1	-	1
	PC4. recognize different measures to curb the hazards	2	1	-	1
	PC5. implement programs for health, safety, and security of the people at the workplace	2	1	-	1
	PC6. communicate the safety plans to everyone at the workplace	2	1	-	1
	PC7. attach disciplinary rules with the implementation at the workplace	2	1	-	2
	<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	-	2
	PC9. use and maintain protective equipment as per requirement in a production house	2	2	-	2
	PC10. ensure organizational activities in line with approved guidelines and procedures	1	4	-	1
	PC11. undertake and advise healthy lifestyle for self and others	1	2	-	1
PC12. follow environment management system related procedures	1	4	-	1	

	PC13. ensure storage of materials and tools in line with manufacturers and Cooperative Society/NGO/SHG requirements	1	4	-	1
	PC14. ensure safe handling and disposal of waste and debris	1	5	-	1
	PC15. minimize health and safety risks to self and others due to own actions	1	1	-	1
	PC16. monitor the work place and work processes for potential risks and threats to self and others	1	1	-	1
	PC17. carry out periodic check to keep work area free from hazards and obstructions	1	1	-	4
	PC18. ensure participation of self and others in mock drills/ evacuation procedures organized at the workplace	1	1	-	1
	PC19. organize first aid, fire-fighting and emergency training sessions for others	1	1	-	1
	PC20. instruct and guide others to take action in the event of fire, emergencies or accidents	1	1	-	1
	PC21. follow Cooperative Society/NGO/SHG procedures for evacuation when required	1	3	-	2
	NOS Total	30	40	-	30
DGT/VSQ/N0101, V.1.0 : 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	-	-	-
	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	-	-
	NOS Total	46	54	-	-
	NOS Total	216	324		60
	Grand Total	600			

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. Testing Environment:

- 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.
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