

QUALIFICATION FILE

Field Technician - UPS And Inverter

- ☒ 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:

Electronics Sector Skills Council of India (ESSCI)

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Section 1: Basic Details

1.	Qualification Name	Field Technician - UPS And Inverter																	
2.	Sector/s	Electronics																	
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (change to previous, once 2022/EHW/ESSC/06666 & V 3		Qualification Name of existing/previous version: Field Technician - UPS And Inverter															
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																	
5.	National Qualification Register (NQR) Code & Version (Will be issued after NSQC approval)	QG-04-EH-044972025-V2-ESSCI	6. NCrF/NSQF Level: 4																
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																	
8.	Brief Description of the Qualification	The individual at work installs the newly purchased UPS or inverter and interacts with customers to diagnose problems in them, assess possible causes, rectify faults or replace faulty modules or recommends factory repairs for bigger faults.																	
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 grade or equivalent</td> <td>NA</td> </tr> <tr> <td>2</td> <td>10th grade or equivalent</td> <td>3 years relevant experience</td> </tr> <tr> <td>3</td> <td>Certificate-NSQF (Level-3 in relevant domain)</td> <td>3 years of relevant experience</td> </tr> <tr> <td colspan="3"># Relevant Experience in Industrial Automation</td> </tr> </tbody> </table> b. Age: NA			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	12th grade or equivalent	NA	2	10th grade or equivalent	3 years relevant experience	3	Certificate-NSQF (Level-3 in relevant domain)	3 years of relevant experience	# Relevant Experience in Industrial Automation		
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																	
1	12th grade or equivalent	NA																	
2	10th grade or equivalent	3 years relevant experience																	
3	Certificate-NSQF (Level-3 in relevant domain)	3 years of relevant experience																	
# Relevant Experience in Industrial Automation																			
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	15	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																

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>	☐ 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>00:00</td> <td>180:00</td> <td>120:00</td> <td>00:00</td> <td rowspan="2">450</td> </tr> <tr> <td>Online</td> <td>150:00</td> <td>00:00</td> <td>00:00</td> <td>00:00</td> </tr> </tbody> </table> <i>(Refer Blended Learning Annexure for details)</i>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	00:00	180:00	120:00	00:00	450	Online	150:00	00:00	00:00	00:00
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																		
Classroom (offline)	00:00	180:00	120:00	00:00	450																		
Online	150:00	00:00	00:00	00:00																			
14.	Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO-2015/7421.0801																					
15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Sr. Technician- UPS Inverter and Control Panel																					
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:																					
19.	How Participation of Women will be Encouraged	No gender sensitization																					
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	☒ Yes ☐ No (Employability Skills (30 hours)																					
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 <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Saleem Ahmed Email: ceo@essc-india.org Contact No.: 011 – 8447738501 Website: https://www.essc-india.org/																					
23.	Final Approval Date by NSQC: 07.10.2025	24. Validity Duration: 3 Years			25. Next Review Date: 07.10.2028																		

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

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

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/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	Understand requirement of customer	ELE/N0061 & V4.0	Core	4	4	60	30	30	0	120	40	60	0	0	100	25
2	Install the UPS/Inverter	ELE/N7201 & V4.0	Core	4	5	30	75	45	0	150	40	60	0	0	100	25
3	Repair dysfunctional UPS/inverter	ELE/N7202 & V4.0	Core	4	5	30	75	45	0	150	40	60	0	0	100	30
4	Employability Skills (30 hours)	DGT/VSQ/N010 1 & V1.0	Non-core	4	1	30	0	0	0	30	20	30	0	0	50	20
Duration (in Hours) / Total Marks					15	150	180	120	0	450	140	210	0	0	350	100

Elective NOS/s:

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.																
2.																
Duration (in Hours) / Total Marks																

Optional NOS/s:

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

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma/ ITI (Electronics/Electrical) with 1 years industrial and 1 year training experience in the field Networking and Storage. Or Certified in relevant CITS Trade
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma/ ITI (Electronics/Electrical) with 2 years industrial and 1 year training experience in the field Networking and Storage. Or Certified in relevant CITS Trade
3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ ITI (Electronics/Electrical) with 2 years industrial and 1 year training experience in the field Networking and Storage. Or Certified in relevant CITS Trade
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ ITI (Electronics/Electrical) with 3 years industrial and 1 year training experience in the field Networking and Storage. Or Certified in relevant CITS Trade
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ ITI (Electronics/Electrical) with 4 years industrial and 3 year training experience in the field Networking and Storage. Or Certified in relevant CITS Trade
4.	Assessment Mode (Specify the assessment mode)	Blended
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☐ Yes ☐ No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 25
5.	Estimated nos. of persons to be trained and employed: 3500
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes 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>	Attached
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Attached
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Attached
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Attached
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is "Blended Learning")</i>	Filled
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	Filled
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	Attached
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	Attached
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	Attached
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	Attached
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	
12.	Any other document you wish to submit:	

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	Demands a wide range of specialized technical skill, clarity of knowledge and practice in broad range of activity involving standard and non-standard practices.	A Field Technician is responsible for interacting with customers to diagnose problems, assessing possible causes, rectifying faults or replace faulty modules or recommending factory repairs for bigger faults.	4

	• Understanding the requirement of customer • Installing the UPS/Inverter • Repairing Dysfunctional UPS/Inverter • Reporting problems to the supervisor • Interacting effectively with colleagues and superiors • Applying health and safety practices at the workplace.	Hence Level 4	
Professional and Technical Skills/ Expertise/ Professional Knowledge	Factual and theoretical knowledge in broad contexts within a field of work or study. • Knowledge of the customer requirements • Installing the UPS/Inverter • Process of repairing the UPS/Inverter • Knowledge of company's policy on turnaround time, working hours	A Field Technician should have the knowledge of understanding the requirements of the customers, installing the UPS/Inverter and repair as and when required. Hence Level 4	4
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study. • Communicate with the team to understand the work requirement • Identify the errors in process • Achieving quality and productivity	A Field Technician must be able to communicate with the team effectively and also identify the errors in the process during installing and repairing the UPS/Inverter. Hence Level 4	4
Broad Learning Outcomes/Core Skill	Reasonably good in: • Understanding the customer requirement • Installing the UPS/Inverter • Repairing the faults in UPS/Inverter	A Field Technician has to understand the requirement of the customer and work according to it to achieve full productivity and satisfaction. Hence Level 4	4
Responsibility	Responsibility of completing the work assigned and reporting the same as per standards. • Understand the job role and follow the organizational policy • Follow safety regulations at work place • Work along with colleagues	A Field Technician should record the issues and also update the status of the work as per organizations policy. Hence Level 4	4

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Quantity for specified	Specifications
1	Battery	1	100-130 Ah, 12 Volts
2	Clamp meter	5	Standard
3	Digital Multimeter	3	Standard
4	Hammer	5	Standard
5	Hand bender	5	Standard
6	Insulation Tape	5	Standard
7	Inverter	2	800-1000 VA, 50Hz freq
8	Lead Solder	2	Standard
9	Oscilloscope	1	Standard
10	Pliers	5	Standard
11	Ratchets	5	Standard
12	Screw Driver Set	5	Standard
13	Soldering Flux	2	Standard
14	Soldering Iron	5	Standard
15	Spanner/Wrenches	5	Standard
16	Tester	5	Standard
17	Thimble/Crimping Terminal	5	Standard
18	IOT -enabled UPS	1	400-600 VA, 50Hz Freq, 2-3A, 220-240V
19	UPS	1	1000-1400 VA, 50Hz Freq, 2-3A, 220-240V
20	Utility Knife	5	Standard
21	Wire	5	Insulated Copper Wire
22	Wire cutter	5	Standard

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard and Marker
2. Projector
3. Computer/Laptop

4. Chairs and Tables

Annexure: 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	Nagdeo Education Welfare Society	Vijay Nagdeo	General Manager	Ward No. 11 Junnardeo Dist. Chhindwara M.P. 480551	9425461093	Vijaynagdeo02@gmail.com	
2	Access Edutech Pvt. Ltd.	Sanjay Kumar Mishra	Director	96, Vrindavan Nagar Ayodhya Bypass Road Bhopal	7000650224	sanjaymishra@accesse dutech.com	
3	Shiv shakti teckniki evam samanaya shikshan sansthan	Jitendra Kumar Garg	President	B 32 MAHESH NAGAR JAIPUR RAJASTHAN-302015	9782912782	jitendra.garg303@gmai l.com	
4	Ephicity Lifescience Analytics	Rahul Kumar Kaushik	Senior Software Engineer	2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka 560076	8859885973	Rahul.Kaushik@ephica cy.com	
5	Nagravision India Pvt. Ltd.	Avinash Yadav	Manager- System Administrator	RMZ Centennial, Tower C unit 301 and 302, Mahadevapura Post ITPL Road, Bangalore	9808326626	avinash.yadav@nagra.c om	
6	Sri Venkateswara College of Engineering	Dr C Chandrasekhar	Head R &D & Professor in ECE	Karakmbadi Road,Tirupati 517507	9177217190	dr.chandrasekhar.c@sv colleges.edu.in	
7	Rastriya Khushali Sansthan	Ramkaran Sinsinwar	President	VOP Tajsar Fatehpur Rajasthan	6350658040	Rkstajsar1998@gmail.com	
8	Sri Rajaram Shikshan Sansthan	Rajendra Parsad	Principle		8808696968	rajendraitijnp@gmail.c om	

9	Nexgen Exhibitions Pvt. Ltd.	Saurabh Purwar	Director	1201/1206 Pragati Tower, 26 Rajendra Place, New Delhi-110008, India	9457306691	fbvidgo@gmail.com	
10	Siemens Limited	Manoj Belgaonkar	Head – Regulations, Standards and QM	R&D Centre, Thane Belapur Road, Airoli, Navi Mumbai 400708	9820682825	manoj.belgaonkar@siemens.com	
11	Tata Consultancy Services	Sheepa Kaushik	Consultant – Product Development	Kensington B Wing, Hiranandani SEZ, Powai, Mumbai 400076	8433595090	sheepa.sharma@tcs.com	
12	Conduent- https://www.conduent.com	Prince Jain	Senior Business Analyst	7 to 9th Floor & 6 to 9th Floor, Building No.5 & 6, Plot No 20&21, Candor Tech Space, IT/ITES SEZ., Noida, Uttar Pradesh 201304	8439385780	prince.jain@conduent.com	
13	Artificial Intelligence Technologies	Rohit Kumar Sharma	Manager – Product Development	A-21, sector 4, Block A, Kailash Colony, Greater Kailash, New Delhi	9927564461	rohit.sharma@aituniversitysal.com	
14	Shri Prasad Sharma Shikshan Sansthan Myana	Suresh		Gautam Budha Nagar UP	8433476571		
15	Evergreen Education Trust	Faizanbazaz	Director	217, Pehari Colony Jammu 180005	7006341193	eetturst@gmail.com	
16	Bergen Associates Pvt Ltd.	Soubam Sunil	Manager	305-306, Magnum House-I, Commercial Complex, Karampura, New Delhi – 110015	9311780832	s.soubam@bergengroupindia.com	

17	Sankalp Education and development society	Jafruddin Khan	SPOC		8104049522		
18	Ramyash Pvt ITI	Ramyash	Principel	Jamalpur	9454738298	Yashvantyadav964@gmail.com	
19	Shri Solasar Balaji Shikshan	Nand Kishor Gurjar	SPOC	Rajasthan	9358734466	shribalajiitisujangarh@gmail.com	
20	ETE Pvt. Ltd.	Tanushree	Training in charge	Mohali Panjab	9855999875		
21	Skills Sons India Pvt. Ltd	Sriram	Head Content		9845013638		
22	KKTMCE			Bangalore			
23	www.n Gen Group.com		Training	Pune	8888839605		
24	Rastriya Khushali Sansthan	Ramkaran Sinsinwar	President	VOP Tajsar Fatehpur Rajasthan	6350658040	Rkstajsar1998@gmail.com	

Annexure: Training Details

Training and Employment Projections:

Year	Total Candidates	Women	People with Disability
	Estimated Training # Total	Estimated Training # Women	Estimated Training # PwD
2025-26	1000	NA	NA
2026-27	1000	NA	NA
2027-28	1500	NA	NA

Data to be provided year-wise for next 3 years

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

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
3.0	2022-23	1171	951	852	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.0	2023-24	294	216	187	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.0	2024-25	14073	11349	10678	NA	NA	NA	NA	NA	NA	NA	NA	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. PMKVY
- 2.

Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available:

1. Hindi
2. English

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	☒ Theory/ Lectures - Imparting theoretical and conceptual knowledge	● Books/ e-books	30:70

		• Presentations • Reference Material • Audio / Video Modules	
2	☑Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	• Self-Learning Videos • Broadcasts • Mobile Learning • Curated Digital content	30:70
3	☑Showing Practical Demonstrations to the learners	• Video Content • E-Resource library • AR/ VR/ XR	30:70
4	☑Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	• Training tools (tools list attached) • Video Play • Presentations	30:70
5	☑Tutorials/ Assignments/ Drill/ Practice	• Online Question Bank • Mobile Quick test app • MCQ based tests	30:70
6	☑Proctored Monitoring/ Assessment/ Evaluation/ Examinations	• Assessment engine for Essays • Up-loadable file examinations • Mock test sessions	30:70
7	☑On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	• Online tests • Offline assessments	30:70

Annexure: 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
ELE/N0061: Understand requirement of customer	Introduction and Interact with customer prior to visit	5	15		
	PC1. Discuss issues with customers, install newly purchased UPS or inverters, identify causes of faults, rectify them or replace faulty modules, and recommend factory repair for major issues.	2	5		

	PC2. check customer complaint registered at customer care or installation schedule and make a call to customer to confirm problem and schedule the time for visit	1	5		
	PC3.exchange greetings with the customer and confirm the problem registered	1	2		
	PC4.ensure polite interaction with customer	1	3		
	PC5.check the warranty status and annual maintenance contract of appliance		1		
	PC6.anticipate possible problems to carry tools and parts accordingly		1		
	PC7.ascertain customer's location in order to make the route plan for the day		1		
	Interact with customer at their premises	15	15		
	PC8.enquire about the issues and history of problems in the appliance	3	4		
	PC9.enquire about the age of appliance and status of upkeep	3	3		
	PC10.identify the problem based on customer's information	3	2		
	PC11.discuss about the problems as well as the possible reasons	3	3		
	PC12.inform about costs involved	3	3		
	Suggest possible solutions to customer	15	15		
	PC13.suggest possible solutions of the problems identified	5	5		
	PC14.explain the methodology for servicing and specify the time required for	5	4		
	PC15.provide customer's approval on further action	5	6		
	Achieve productivity and quality as per company's norms	5	15		
	PC16.ensure accurate assessment of the problem and necessary solution(s)	1	3		
	PC17.propose most appropriate and cost- effective service as per customer's requirement	1	2		
	PC18.convey problem confidently so that customer can rely on	1	2		
	PC19.ensure 100% customer satisfaction and positive feedback	1	2		
	PC20.ensure zero customer complaints post service	1	2		
	PC21.ensure zero repeat of same problem post service		2		
	PC22.prepare most optimum route plan to complete daily target visits		2		
	NOS TOTAL	40	60		
ELE/N7201: Install the UPS/Inverter	Undertake preinstallation site visit	5	10		
	PC1.visit the customer's premise before carrying out the installation	1	1		
	PC2. interact with customer using CRM apps, online service forms to understand where the UPS/inverter is to be installed	1	1		
	PC3.check whether the location meets structural requirements such as solid floor surface suitable for wheeling and heavy weight, weight and clearance requirements, etc.	1	2		
	PC4.carry out pre-installations/masonry/electrical work to be carried out	1	2		
	PC5.educate customer about keeping the equipment protected from moisture	1	2		
	PC6.request appointment for the next visit		2		
	Check accessories	5	10		

	PC7.check that the product matches with the customer order in terms of color and model	1	1		
	PC8.ensure that the original packaging is retained if the UPS is to be installed later	1	1		
	PC9.check all supporting accessories purchased are there in the pack	1	1		
	PC10.ensure that there is no sign of shipping damages	1	1		
	PC11.check whether the required tools and fitments are available for the installation	1	2		
	PC12.clear up the packaging material waste and dispose as per company's norms		2		
	PC13.remove watches, rings or any other metal objects before installation procedure		2		
	Place the UPS/Inverter at identified location	5	10		
	PC14. check whether pre-installation of IOT -enabled UPS systems requirements are met	1	2		
	PC15.ensure that the room in which the UPS is installed is well ventilated and that there is no flammable gas in the environment around	1	2		
	PC16.maintain minimum space needed for ventilation and service	1	2		
	PC17.detach all bolts and shipping brackets and separate the UPS cabinet	1	1		
	PC18.place the UPS at the final location, then connect the power and control wirings through the top or bottom of the cabinet		1		
	PC19.follow standard wiring procedure while carrying out the electrical installation	1	1		
	PC20.reinstall safety shields removed during the process of installation		1		
	Check functioning of the product	5	5		
	PC21.align the IOT -enabled UPS/inverter as per the instruction manual, once necessary power and control connections are made	1	2		
	PC22.demonstrate the features and utility	2	2		
	PC23.explain the precautions to be taken while using the air conditioner	2	1		
	Complete the documentation	5	10		
	PC24.fill in customer acknowledgement form	1	2		
	PC25.provide customer's signature	1	2		
	PC26.complete other documentation needed for the record of completion of installation	1	3		
	PC27.call customer care and inform that the job is done	2	3		
	Interact with supervisor or superior	5	5		
	PC28.interact time to time with the superior for understanding the work requirement	1	1		
	PC29.inform the superior about the work completion	1	2		
	PC30.escalate the customer issues and problems that are unresolved in the field	2	1		

	PC31.document the work completed on the company ERP software for tracking and future references	1	1		
	Achieve productivity and quality as per company's norms	10	10		
	PC32. ensure no damage of the IOT -enabled UPS /Inverter while removal of packaging	2	1		
	PC33.place the equipment as per requirements specified in instructions manual	2	1		
	PC34.educate customer on importance of proper placing	1	2		
	PC35.carry and use the correct tools and equipment for installation	1	2		
	PC36.operate and check that they are in a safe and stable condition	1	1		
	PC37.complete the installation within the given time limit	1	1		
	PC38.educate customer on proper operation and maintenance procedures	1	1		
	PC39.complete daily field schedule as per instructions/format within the designated time	1	1		
	NOS TOTAL	40	60		
ELE/N7202: Repair Dysfunctional UPS/Inverter	Understand the symptoms in the UPS/inverter and identify the fault	10	10		
	PC1.diagnose the fault based on customer interaction and initial inspection	1	2		
	PC2.disconnect the power source and open the cabinet doors of the equipment	1	2		
	PC3.disconnect the battery and wait for electrolytic capacitor to discharge	1	1		
	PC4.remove protective panels since the voltage present is potentially lethal	1	1		
	PC5.check the air filters and monitor system parameters from the control panel	1	1		
	PC6.carry out basic tests such as power supply inspection, volt ampere test and earth test power supply etc.	1	1		
	PC7.separate and inspect every module of the unit if the fault is not identified through basic tests	2	1		
	PC8.visit factory for in depth diagnosis, if problem remains un-identified at site	2	1		
	Replace dysfunctional module in the UPS/inverter unit	5	5		
	PC9.replace component at location, if the fault identified is because of damage of components such as fuse or battery	2	3		
	PC10.remove and replace the faulty module with a functional one, either on a second visit or as pre-identified and collected from the service center, if the problem is at the PCB level or components that cannot be replaced at site	3	2		
	Confirm functionality of the repaired unit	10	10		
	PC11.reassemble the unit and make all power as well as communication wirings	1	1		
	PC12.ensure that the unit is functioning after switching on the power supply	1	2		

	PC13.check whether all the modules of the unit is working as per specifications	1	1		
	PC14.demonstrate and confirm functionality of the unit with customer	1	1		
	PC15.educate the customer about cleaning procedures and other best practices	1	1		
	PC16.collect necessary payments from the customer, if applicable	1	1		
	PC17.fill in customer acknowledgement form.	2	1		
	PC18.complete other documentation procedures to record complaint closure	2	1		
	Achieve productivity and quality as per company's norms	15	35		
	PC19.ensure damage free handling of the unit	1	5		
	PC20.diagnose the problem accurately and in assigned time	1	5		
	PC21.identify the problem modules accurately such as the power supply, battery, PCB, etc.	1	5		
	PC22.repair the dysfunctional equipment within the designated time	1	5		
	PC23.ensure no repetition of the issues in the equipment	1	5		
	PC24.ensure minimum customer complaints post service	1	2		
	PC25.achieve daily target of attending the complaints	1	1		
	PC26.select the right spares according to recorded complaints at the customer care	1	1		
	PC27.inform the exact type of module requirement to the service center, if a faulty module is to be replaced	1	1		
	PC28.secure repairs completion receipt from customer	1	1		
	PC29.inform customer about the maintenance procedure and correct practices to follow in order to avoid further problems	1	1		
	PC30.ensure 100% customer satisfaction	1	1		
	PC31.receive payments as per rate sheet/ communication from customer care	1	1		
	PC32.sell related products such as new equipment or Annual Maintenance Contracts (AMC) as per company policy Knowledge	2	1		
	NOS Total	40	60	-	-
DGT/VSQ/N0101 - Employability Skills (30 hours)	Introduction to Employability Skills	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	Constitutional values – Citizenship	1	1	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
	Becoming a Professional in the 21st Century	1	3	-	-

PC3.explain 21st Century Skills such as Self Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
Basic English Skills	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
Communication Skills	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team				
Diversity & Inclusion	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
Financial & Legal Literacy	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
Essential Digital Skills	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
Entrepreneurship	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
Customer Service	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & jobs	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-
Grand Total	140	210	-	0

Annexure: 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.

Mention the detailed assessment strategy in the provided template.

1. Assessment System Overview:
 - Batches assigned to the assessment agencies for conducting the assessment on SDMS/SIP or email
 - Assessment agencies send the assessment confirmation to VTP/TC looping SSC
 - Assessment agency deploys the ToA certified Assessor for executing the assessment
 - SSC monitors the assessment process & records
2. Testing Environment:
 - Confirm that the centre is available at the same address as mentioned on SDMS or SIP
 - Check the duration of the training.
 - Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
 - If the batch size is more than 30, then there should be 2 Assessors.
 - Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
 - Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
 - Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
 - Check the availability of the Lab Equipment for the particular Job Role.
3. Assessment Quality Assurance levels / Framework:
 - Question papers created by the Subject Matter Experts (SME)
 - Question papers created by the SME verified by the other subject Matter Experts
 - Questions are mapped with NOS and PC
 - Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
 - Assessor must be ToA certified & trainer must be ToT Certified
 - Assessment agency must follow the assessment guidelines to conduct the assessment
4. Types of evidence or evidence-gathering protocol:
 - Time-stamped & geotagged reporting of the assessor from assessment location
 - Centre photographs with signboards and scheme specific branding
 - Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
 - Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos
5. Method of verification or validation:
 - Surprise visit to the assessment location

- Random audit of the batch
 - Random audit of any candidate
6. Method for assessment documentation, archiving, and access
- Hard copies of the documents are stored
 - Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
 - Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

On the Job:

Each module (which covers the job profile of Field Technician - UPS And Inverter) will be assessed separately.

1. The candidate must score 50% in each module to successfully complete the OJT.
2. Tools of Assessment that will be used for assessing whether the candidate is having desired skills and etiquette of dealing with customers, understanding needs & requirements, assessing the customer and perform Soft Skills effectively:
 - Videos of Trainees during OJT
 - Answer Sheets of Question Banks
 - Assessing the Log Book entries of Trainees at Employer location
 - Employer Performance Feedback.
3. Assessment of each Module will ensure that the candidate is able to:
 - Understand the basic principles of AC, DC and electronic circuits.
 - Work effectively at the workplace
 - Basic health and safety practice.

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