

QUALIFICATION FILE

Construction Electrician-LV

☒ 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:

Construction Skill Development Council of India

Address: CPB - 201 & 202, Block-4B, DLF Corporate Park, Phase - III, MG Road, Near Guru Dronacharya Metro Station, Gurugram, Haryana - 122002

Submitting Body Contact Details:

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Table of Contents

Section 1: Basic Details	3
Section 2: Module Summary	6
NOS/s of Qualifications	6
Mandatory NOS/s:	6
Elective NOS/s:	8
Optional NOS/s:	8
Assessment - Minimum Qualifying Percentage	9
Section 3: Training Related	9
Section 4: Assessment Related	11
Section 5: Evidence of the need for the Qualification	12
Section 6: Annexure & Supporting Documents Checklist	12
Annexure: Evidence of Level	13
Annexure: Tools and Equipment (Lab Set-Up)	18
Annexure: Industry Validations Summary	21
Annexure: Training & Employment Details	26
Annexure: Blended Learning	28
Annexure: Detailed Assessment Criteria	29
Annexure: Assessment Strategy	39
Annexure: Acronym and Glossary	42
Annexure: Career Progression	44

Section 1: Basic Details

1.	Qualification Name	Construction Electrician-LV	
2.	Sector/s	Construction	
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (QG-3.5-CO-03376-2024-V1.1-CSDCI & v 4.0)	Qualification Name of existing/previous version: Construction Electrician-LV
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	NA	
5.	National Qualification Register (NQR) Code &Version <i>(Will be issued after NSQC approval)</i>	QG-04-CO-03952-2025-V2-CSDCI & v 5.0	6. NCrF/NSQF Level: 4
7.	Award (Certificate/Diploma/Advanced Diploma/ Any Other) <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate	
8.	Brief Description of the Qualification	A Construction Electrician - LV is responsible for laying cables, installing, and maintaining equipment like motors, bar cutting machines, bar shearing machines etc., at the construction sites as per the requirement of construction activities. The responsibilities also include carrying out permanent wiring and assisting the foreman in the electrification of buildings. The individual uses electrical drawings, diagrams, and related documents to carry out the activities	

9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1" data-bbox="966 267 1984 760"> <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 pass</td> <td></td> </tr> <tr> <td>2.</td> <td>Completed 2nd year of 3-year diploma after 10th (in Electrical Engineering)</td> <td></td> </tr> <tr> <td>3.</td> <td>11th grade pass</td> <td>1-year relevant experience</td> </tr> <tr> <td>4.</td> <td>10th grade pass</td> <td>2-year relevant experience</td> </tr> <tr> <td>5.</td> <td>8th grade pass</td> <td>4-year relevant experience</td> </tr> <tr> <td>6.</td> <td>Previous relevant qualification of NSQF Level 3 (Assistant Electrician)</td> <td>3-year relevant experience</td> </tr> </tbody> </table> b. Min. Job Entry Age: 18 years						S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	12th grade pass		2.	Completed 2nd year of 3-year diploma after 10 th (in Electrical Engineering)		3.	11th grade pass	1-year relevant experience	4.	10 th grade pass	2-year relevant experience	5.	8th grade pass	4-year relevant experience	6.	Previous relevant qualification of NSQF Level 3 (Assistant Electrician)	3-year relevant experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																										
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4.	10 th grade pass	2-year relevant experience																										
5.	8th grade pass	4-year relevant experience																										
6.	Previous relevant qualification of NSQF Level 3 (Assistant Electrician)	3-year relevant experience																										
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 (wherever applicable)	NA																										
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	☒ Offline ☐ Online ☐ Blended <table border="1" data-bbox="993 1112 2009 1372"> <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>120</td> <td>270</td> <td>60</td> <td></td> <td>450</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> (Refer Blended Learning Annexure for details)						Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	120	270	60		450	Online								
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																							
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Online																												

14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/7411.0100	
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Foreman - Electrical Works (Construction)	
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	To encourage women to participate in Construction Electrical Works job roles, it is important to provide education, mentorship, and networking opportunities, as well as training and development programs. Flexible work arrangements and promoting successful women in Construction Electrical Works can also inspire and encourage women to pursue careers in this field. Creating a culture of inclusion and diversity can help women feel welcome and valued in Construction Electrical Works job roles, through policies and practices that support work-life balance, equal pay and promotion opportunities, and a safe and respectful workplace.	
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	☒ Yes ☐ No CON/N9001	
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☐ Yes ☒ No Colleges ☒ Yes ☐ No	
22.	Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Abhisek Prasad Mishra Email: abhisek@csdcindia.org Contact No.: 0124-4513915-18 Ext-23 Website: www.csdcindia.org	
23.	Final Approval Date by NSQC: 08-05-2025	24. Validity Duration: 3 Years	25. Next Review Date: 30-04-2028

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 to the curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job Training **Man.**-Mandatory **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.	Lay (single/ three phase) cable and provide electrification for equipment at construction sites	CON/N0608 & v 5.0	Core	4	3	20	55	15	-	90	30	70	-	-	100	20
2.	Inspect electrical maintenance of construction equipment as per requirement	CON/N0609 & v 5.0	Core	4	3	25	50	15	-	90	30	70	-	-	100	20
3.	Carry out LV electrical wiring and assist the foreman	CON/N0610 & v 5.0	Core	4	5	30	90	30	-	150	30	70	-	-	100	20

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)
	in building electrification works															
4.	Work according to personal health, safety and environment protocols at construction site	CON/N9001 & v 3.0	Core	4	1	05	25	-	-	30	30	70	-	-	100	10
5.	Work effectively in a team to deliver desired results at the workplace	CON/N8001 & v 3.0	Non-Core	4	1	05	25	-	-	30	30	70	-	-	100	10
6.	Plan and organize work to meet expected outcomes	CON/N8002 & v 4.0	Non-Core	4	1	05	25	-	-	30	30	70	-	-	100	10
7.	Employability Skills (30 Hours)	DGT/VSQ/N0101 & v 1.0	Non-Core	2	1	30	-	-	-	30	20	30	-	-	50	10
Duration (in Hours) / NOS Total					15	120	270	60	-	450	200	450	-	-	650	100

Elective NOS/s:

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

Th.-Theory **Pr.**-Practical **OJT**-On the Job Training **Man.**-Mandatory **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.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Duration (in Hours) / NOS Total					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Optional NOS/s:

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

Th.-Theory **Pr.**-Practical **OJT**-On the Job Training **Man.**-Mandatory **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.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Duration (in Hours) / NOS Total			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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)	Minimum Educational Qualification	Specialization	Relevant Industry Experience		Preferable Training Experience	
				Years	Specialization	Years	Specialization
		B.E. / B.Tech	Electrical Engineering	2	Site Execution (Electrical Work)	1	Construction Electrical Work
		OR					
		Diploma	Electrical Engineering	3	Site Execution (Electrical Work)	1	Construction Electrical Work
		OR					
		ITI	Relevant Trade	6	Site Execution (Electrical Work)	1	Construction Electrical Work
		OR					
		Graduation	in any Stream	6	Site Execution (Electrical Work)	1	Construction Electrical Work
		OR					
		Ex-Army Graduate	in any Stream	6	Site Execution (Electrical Work)	1	Construction Electrical Work

2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Minimum Educational Qualification	Specialization	Relevant Industry Experience		Preferable Training Experience	
				Years	Specialization	Years	Specialization
		B.E. / B.Tech	Electrical Engineering	6	Site Execution (Electrical Work)	1	Construction Electrical Work
		OR					
		Diploma	Electrical Engineering	8	Site Execution (Electrical Work)	1	Construction Electrical Work
		OR					
		ITI	Relevant Trade	10	Site Execution (Electrical Work)	1	Construction Electrical Work
		OR					
		Existing TOT certified Trainer in Skill Qualification	Construction Electrician - LV	2	Site Execution (Electrical Work)	5	Construction Electrical Work
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)	<table><tr><th rowspan="2">Minimum Educational Qualification</th><th rowspan="2">Specialization</th><th colspan="2">Relevant Industry Experience</th></tr><tr><th>Years</th><th>Specialization</th></tr><tr><td>B.E. / B.Tech</td><td>Electrical Engineering</td><td>2</td><td>Construction Electrical Work</td></tr><tr><td colspan="4">OR</td></tr><tr><td>Diploma</td><td>Electrical Engineering</td><td>5</td><td>Construction Electrical Work</td></tr><tr><td colspan="4">OR</td></tr><tr><td>ITI</td><td>Relevant Trade</td><td>7</td><td>Construction Electrical Work</td></tr></table>	Minimum Educational Qualification	Specialization	Relevant Industry Experience		Years	Specialization	B.E. / B.Tech	Electrical Engineering	2	Construction Electrical Work	OR				Diploma	Electrical Engineering	5	Construction Electrical Work	OR				ITI	Relevant Trade	7	Construction Electrical Work
Minimum Educational Qualification	Specialization	Relevant Industry Experience																										
		Years	Specialization																									
B.E. / B.Tech	Electrical Engineering	2	Construction Electrical Work																									
OR																												
Diploma	Electrical Engineering	5	Construction Electrical Work																									
OR																												
ITI	Relevant Trade	7	Construction Electrical Work																									
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	<table><tr><th rowspan="2">Minimum Educational Qualification</th><th rowspan="2">Specialization</th><th colspan="2">Relevant Technical Experience</th></tr><tr><th>Years</th><th>Specialization</th></tr><tr><td>Graduation</td><td>In Relevant Stream</td><td>1</td><td>-</td></tr><tr><td colspan="4">OR</td></tr><tr><td>Diploma</td><td>In Relevant Stream</td><td>2</td><td>-</td></tr></table>	Minimum Educational Qualification	Specialization	Relevant Technical Experience		Years	Specialization	Graduation	In Relevant Stream	1	-	OR				Diploma	In Relevant Stream	2	-								
Minimum Educational Qualification	Specialization	Relevant Technical Experience																										
		Years	Specialization																									
Graduation	In Relevant Stream	1	-																									
OR																												
Diploma	In Relevant Stream	2	-																									
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	<table><tr><th rowspan="2">Minimum Educational Qualification</th><th rowspan="2">Specialization</th><th colspan="2">Relevant Industry Experience</th></tr><tr><th>Years</th><th>Specialization</th></tr><tr><td>B.E. / B.Tech</td><td>Electrical Engineering</td><td>10</td><td>Construction Electrical Work</td></tr><tr><td colspan="4">OR</td></tr><tr><td>Diploma</td><td>Electrical Engineering</td><td>13</td><td>Construction Electrical Work</td></tr></table>	Minimum Educational Qualification	Specialization	Relevant Industry Experience		Years	Specialization	B.E. / B.Tech	Electrical Engineering	10	Construction Electrical Work	OR				Diploma	Electrical Engineering	13	Construction Electrical Work								
Minimum Educational Qualification	Specialization	Relevant Industry Experience																										
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B.E. / B.Tech	Electrical Engineering	10	Construction Electrical Work																									
OR																												
Diploma	Electrical Engineering	13	Construction Electrical Work																									

4.	Assessment Mode (<i>Specify the assessment mode</i>)	Offline
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☐ Yes ☐ No (<i>details to be provided in Annexure-if it is different for Assessment</i>)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 28
5.	Estimated nos. of persons to be trained and employed: 10,500 and 7,350
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments (If “No”, why): No, Last Communication was on 09/04/2025

Section 6: Annexure & Supporting Documents Checklist

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors (<i>Mandatory</i>)	Yes
2.	Annexure: List of tools and equipment relevant for qualification (<i>Mandatory, except in case of online course</i>)	Yes
3.	Annexure: Detailed Assessment Criteria (<i>Mandatory</i>)	Yes
4.	Annexure: Assessment Strategy (<i>Mandatory</i>)	Yes
5.	Annexure: Blended Learning (<i>Mandatory, in case selected Mode of delivery is “Blended Learning”</i>)	No
6.	Annexure: Multiple Entry-Exit Details (<i>Mandatory, in case qualification has multiple Entry-Exit</i>)	No

7.	Annexure: Acronym and Glossary (<i>Optional</i>)	Yes
8.	Supporting Document: Model Curriculum (<i>Mandatory – Public view</i>)	Yes
9.	Supporting Document: Career Progression (<i>Mandatory - Public view</i>)	Yes
10.	Supporting Document: Occupational Map (<i>Mandatory</i>)	Yes
11.	Supporting Document: Assessment SOP (<i>Mandatory</i>)	Yes
12.	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	• Process of laying (single/ three phase) cable and providing electrification for equipment at construction sites • Process of inspecting electrical maintenance of construction equipment as per requirement • Process of carrying out LV electrical wiring and assist the foreman in building electrification works • Process of working effectively in a team to deliver desired results at the workplace • Process of planning and organizing work to meet expected outcomes • Process of working according to personal health, safety and environment protocols at the construction site	As detailed, the entire process followed by a Construction Electrician-LV is to lay (single/ three phase) cable and provide electrification for equipment at construction sites, inspect electrical maintenance of construction equipment as per requirement, carry out LV electrical wiring and assist the foreman in building electrification works. As the work is routine and is repeated multiple times, the work becomes predictable. As the Construction Electrician-LVs are required to perform the task as per the required codes and standards following the method statement available for the task, they have a clear work situation.	4

Professional and Technical Skills/ Expertise/ Professional Knowledge	• Know the standard practices for establishing temporary LV power connection arrangement at the construction site • Know the guidelines provided in Indian Standard code of practice applicable to electrical works • Know how to read and interpret single line diagram (SLD), and schematics, wiring diagrams of electrical connection • Know the electrical units of measurements and their signs • Understand the concept of AC, DC, circuits and their respective properties • Understand the concept of 3 phase circuit and its advantages over single-phase connection • Know the standard procedures of safeguarding exposed cables against external damages • Know the different methods of earthing • Understand the standard procedure of termination of cables at the power sources and equipment • Know the use of MCB, RCCB and ELCB in equipment, their working principles and power ratings • Know the use of measuring devices like digital multimeter, tong tester, digital voltmeter	The knowledge required for an Construction Electrician-LV is factual, as it is specific and limited to the knowledge of standard practices for establishing temporary LV power connection arrangement at the construction site; guidelines provided in Indian Standard code of practice applicable to electrical works; single line diagram (SLD), and schematics, wiring diagrams of electrical connection; electrical units of measurements and their signs; concept of AC, DC, circuits and their respective properties; concept of 3 phase circuit and its advantages over single-phase connection; standard procedures of safeguarding exposed cables against external damages; different methods of earthing; standard procedure of termination of cables at the power sources and equipment; MCB, RCCB and ELCB in equipment, their working principles and power ratings; use of measuring devices like digital multimeter, tong tester, digital voltmeter; concept and working principle of various type of starters used in DC motors; planning lighting arrangement, standard house wiring procedure and best practices. Therefore, their knowledge is applicable to their field of work only.	4
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	• Understand the concept and working principle of various type of starters used in DC motors • Know how to plan lighting arrangement which may enable maximum use of natural lights • Understand the standard house wiring procedure and best practices		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Read and interpret electrical drawings, specifications, manufacturers guidelines as and when required • Check cables, lights and accessories to be used according to instructions/ drawings/ manufacturers specifications • Check for rigidity of poles, condition of exposed cables and fittings, depth and backfilling of trenches, proper barricading as per safety norms • Carry out proper termination of cables • Carry out earthing of the equipment • Carry out trial run and perform applicable electrical tests to ensure safe and desired working of construction equipment • Repair or replace faulty parts according to the power rating and manufacturers guidelines • Inspect leakage, faults in LV single/ three phase power distribution wirings as per directions, standard practices	As indicated the skill set is required to read and interpret electrical drawings, specifications, manufacturers guidelines as and when required; check cables, lights and accessories to be used according to instructions/ drawings/ manufacturers specifications; check for rigidity of poles, condition of exposed cables and fittings, depth and backfilling of trenches, proper barricading as per safety norms; carry out proper termination of cables; carry out earthing of the equipment; carry out trial run and perform applicable electrical tests to ensure safe and desired working of construction equipment; repair or replace faulty parts according to the power rating and manufacturers guideline; inspect leakage, faults in LV single/ three phase power distribution wirings as per directions, standard practices; prepare tentative budget for household wiring and electrification work; calculate electrical material requirements based on electrical fittings and layouts; identify and install protective devices of correct power rating, at appropriate locations of wiring.	4

	• Prepare tentative budget for household wiring and electrification work • Calculate electrical material requirements based on electrical fittings and layouts • Identify and install protective devices of correct power rating, at appropriate locations of wiring		
Broad Learning Outcomes/Core Skill	• Carry out the process of laying cable and provide electrification for equipment at construction sites. • Carry out inspection of electrical maintenance of construction equipment as per the requirement. • Carry out the process of installing LV electrical wiring and provide assistance in building electrification works.	The job holder is expected to carry out the process of laying cable and provide electrification for equipment at construction sites; inspection of electrical maintenance of construction equipment as per the requirement; and process of installing LV electrical wiring and provide assistance in building electrification works.	4
Responsibility	The individual in this job role will be responsible for the below-mentioned activities: • Prepare for cable laying • Lay cable and provide electrification for construction equipment • Carry out repair and maintenance of cables and construction equipment • Perform concealed / exposed wiring and electrification • Install and maintain electrical fixtures/ fittings, earthing arrangement and home appliances	A Construction Electrician - LV is responsible for laying cables, installing, and maintaining equipment like motors, bar cutting machines, bar shearing machines etc., at the construction sites as per the requirement of construction activities. The responsibilities also include carrying out permanent wiring and assisting the foreman in the electrification of buildings. The individual uses electrical drawings, diagrams, and related documents to carry out the activities.	4

	• Interact and communicate in an effective manner • Support co-workers to execute the project requirements • Practice inclusion • Plan and prepare for work • Organise required resources as per work plan • Complete work as per the plan • Follow safety norms as defined by organization • Adopt healthy & safe work practices • Implement good housekeeping and environment protection process and activities • Follow infection control guidelines as per applicability		
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Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30 Candidates

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Safety Message Board/ Safety notice board	Nos	5
2	safety tags	Nos	5
3	First aid box	Nos	2
4	Fire prevention kit	Nos	2
5	Flashback arrestor	Nos	10
6	Hand & leg guard leather	Nos	30
7	wire Brush	Nos	15
8	Jump suit	Nos	30
9	Leather Hand Gloves	Nos	30
10	Sand buckets	Nos	5
11	Fire extinguishers	Nos	2
12	Reflective jackets	Nos	30
13	Particle masks	Nos	30
14	Ear plugs	Nos	30
15	Insulated rubber gloves	Nos	30
16	Safety belt	Nos	30
17	Safety shoes	Pair	30
18	Safety goggles	Nos	30
19	Face shield	Nos	30
20	Helmet	Nos	30
21	Miniature Circuit Breaker (MCB)	Nos	5
22	Earth Leakage Circuit Breaker (ELCB)	Nos	2
23	Mains breaker switch	Nos	5
24	Simple switchboard	Nos	6
25	wall socket	Nos	6
26	Halogen lamp	Nos	3
27	Tungsten bulb/ CFL/FSL bulb	Nos	10

28	Electrical socket (set)	Nos	5
29	Chasing machine	Nos	1
30	Drilling machine	Nos	3
31	Cutting machine	Nos	1
32	Marking tools	Nos	15
33	Spirit level- 1 ft	Nos	15
34	Measuring tape – 5m	Nos	30
35	Tong tester	Nos	5
36	Megger	Nos	1
37	Digital Multimeter	Nos	2
38	Ohmmeter	Nos	2
39	Wattmeter	Nos	2
40	Voltmeter	Nos	2
41	Ammeter	Nos	2
42	Neon tester	Nos	10
43	Wire strippers	Nos	10
44	Crimping tools	Nos	6
45	Screw Drivers (set)	Nos	6
46	Pliers	Nos	30
47	Electrical Tape	Nos	15
48	Cable Ties	Nos	30
49	Cable Cutter	Nos	30
50	Heavy Duty Cable Cutters	Nos	10
51	Fish Tape	Nos	30
52	Coax Connector	Nos	30
53	Terminal Block	Nos	30
54	Cable Lugs	Nos	30
55	Reaming Bit	Nos	10
56	Conduit Bender	Nos	10
57	Splicing Connector	Nos	10
58	Thermal Imaging Cameras	Nos	1
59	Power Quality Analyzers	Nos	1
60	Multifunction Testers	Nos	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Training Kit (Trainer Guide, Presentations)
2. Whiteboard/ Blackboard
3. Marker
4. Projector
5. Working Model

NSQC Approved

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in the 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	Larsen and Toubro Ltd	J Raguraman	Head, CSTD	PB No 979, Mount Poonamallee Road, Manapakkam, Chennai, 600089	9943247482	jraguraman@lntec.com	
2	National Academy of Construction	M Indra Kiran	Director	Near SS Convention Center, Labbipet, Vijayawada, Andhra Pradesh, PIN: 520010	984947 0249	nacptrainings@gmail.com	
3	Indian Institute of Infrastructure and Construction	Prof. (Dr.) B. Sunil Kumar	Director, IIIC	Near Chavara Bridge, AMC, Puthanthura Post, Neendakara - 69L582, Kollam. Kerala	9895013924	director@iiic.ac.in	
4	JK Cement Ltd	Ashish Singh	General Manager	Kamla Tower, Kanpur Nagar, UP, 208001	9468837057	ashish.singh1@jkcement.com	
5	Kamac Engineers Pvt Ltd	Yudhajit Saha	Manager – Contracts & Planning	Ramkrishna Samity Building,	8240040261	planning@kamac.in	

				Panitanki More, 40/107, Sevoke Rd, Ward 11, Near Pani Tanki More (Clock Tower), Siliguri, West Bengal 734001			
6	One Naga Construction Private Limited	Tunito Alex Zhimomi	CEO	DR.N. Theuno; Bayavu; Near N.B.S Office Area; Kohima; Kohima; Nagaland; 797001; India	7005715093	alexzim881@gmail.com	
7	OP Jindal Community College	Om Prakash Verma	Principal	O P Jindal Industrial Park, Tumidih, Chhattisgarh 496107		omprakash.verma@opjccraigarh.edu.in	
8	Poddar Infratech Pvt Ltd	Ms. Neha Devgan	Contracts Manager	202, Crowne Heights, Sector 10 , Rohini , New Delhi	8449521881	letters@poddarinfra.com	
9	Solidstone Constructions	Pragadeeshwaran R J	Principal Designer & Chief Execution (Civil)	7/2 Perumal Nagar, No4 Veerapandi, CBE – 19	7904788630	solidstone.projects@gmail.com	linkedin.com/in/pragadeeshwaran-r-j-6baab7193
10	Star Projects Services Pvt Ltd	H. Asgar	9811376288	K-108 A, First Floor, Above JD Saloon,	9811376288	starprojectsservices@gmail.com	

				Thokar No. 5, Abul Fazal Enclave Part –I, Jamia Nagar, Okhla, N. Delhi 25			
11	Uralungal Labour Contract Co- operative Society	Prem Anand C	Deputy Manager, Learning & Development	Madappally College, Vadakara, 673102 Kozhikode - 673102. Kerala, India	8921763984	prem.anand@ ulccs.com	
12	Route To Connect	Hrisikesh Kashyap	Founder	Bagharbari, Guwahati, Assam	8720905111	hrisi@rtsseven. in	
13	IIT Guwahati	Sparsh Johari	Assistant Professor	North Guwahati, Assam – 781039	7827060976	sparshjohari@i itg.ac.in	
14	AK Consulting	Nirman Jain	Technical Head	6th Cross Rd, 1st Stage, Kadugondanah alli, Bengaluru, Karnataka 560045	7042447336	nirmanjain777 @gmail.com	
15	Artificial Intelligence Technologies Ltd	Rohit Kumar Sharma	Sr. Developer	A-21 Kailash Colony, New Delhi – 110048	9927564461	rohit.sharma@ aituniversal.co m	
16	Asirbadh Projects and Infrastructure Limited	Kunwar Jee	GM (Projects)	A.G. Office Road, Doanda, Ranchi-	7858801901	ahplmd@yaho o.com	

				834002, Jharkhand.			
17	Donge Project Management Consultants Pvt. Ltd.	Balkrishna Kulkarni	President	401, Imperial Heights, Akshar Chowk, OP Road, Vadodara	9819657656	balkrishna.kulk arni@dongrep mc.com	
18	Ephicacy Lifescience Analytics	Rahul Kumar Kaushik	Sr. Manager	2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka 560076	8859885973	rahul.Kaushik @ephicacy.co m	
19	Freelance Architect (Individual Consultant)	Garvit Sharma	Architect	A-101 Radha Krishna Lane, Kaushambi, Ghaziabad, U.P	9971967901	grsharma97@g mail.com	
20	Institute of Management Technology	Sandeep Sharma	Chief Project Engineer & Senior Counsellor	Raj Nagar, Ghaziabad, UP, 201001	9810566031	sharma.sandyk @gmail.com	
21	Know How Schools	Dipesh Bafna	Partner	Know How Schools LLP, C 601, Royal Casa, Ravet, Pune, 412101	9405266123	learn@knowho wschools.com	
22	L& T Skill Trainers Academy	DK Sharma	Principal - CSTI	Larsen & Toubro Ltd. Near Custom House, Versova Creek Madh Jetty, Madh,	7660986699	deepaks@Intec c.com	

				Mumbai, 400061			
23	LK Engicons	Sameer	Owner	114, Bhawanpur, Meerut, UP, 250001	9808170639	sales@lkengico ns.com	
24	Manpower Group Services India	Durgesh Begariya	Head Branch Operations	Unit-4 A/1 and A/2, 4th Floor, Plot No. 6, Uppal Plaza, Jasola, New Delhi	9824054165	durgesh.b@ma npower.co.in	
25	Senryaku Management Private Limited	Udit Kumar	Consultant	UTC031, DLF The Ultima, Sector 81, Gurugram, HR 122004	9690909024	udit.kau@gmai l.com	
26	Shrikant Gajanan Mhatre - Consulting Engineer & Valuer	Shrikant Gajanan Mhatre	Consulting Engineer & Valuer	Reg. No. CCRDP / R / 2022 / APL/ 00305 Approved Valuer No. -LM / CAT - I/ F - 4860, C P No. - 180. SHIV NIWAS / Sagar Society, Private High School Road I Pen - Raigad - Maharashtra - India . 402 107.	9689728209	sshri1000@gm ail.com	

27	Sunbright Manpower Solutions Pvt. Ltd	Arun Kumar	Supervisor	Shop No. 3144, Main Road, Narasapura, Kolar Taluk, Bangalore, Karnataka, 563133	7338463588	bangalore@sunbrightgroup.com	
28	ATS Homekraft	Bhumit Kamboj	General Manager, Program	ATS HomeKraft, 4th Floor, ATS Tower, Plot no-16, Sector-135, Noida-201305	9873951040	bhumit.kamboj@homekraft.in	

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
2025-26	2,500	1,750	500	350	Subject to the requirement of the Industry	Subject to the requirement of the Industry
2026-27	3,500	2,450	700	490	Subject to the requirement of the Industry	Subject to the requirement of the Industry
2027-28	4,500	3,150	900	630	Subject to the requirement of the Industry	Subject to the requirement of the Industry

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	Trained	Assessed	Certified	Trained	Assessed	Trained	Assessed
V 3.0	2022-23	268	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
V 3.0	2023-24	4949	246	199	120	NA	NA	NA	NA	NA	NA	NA	NA
V 3.0	2024-25	3806	6282	5574	3500	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. ASDM
2. AICTE
3. DDUGKY
4. DDU-KK
5. HPKVN
6. Minister for Minority Affairs
7. NSDC - UAE
8. NULM
9. PMKVY 2.0
10. PMKVY 4.0
11. UPSDM

Content availability for previous versions of qualifications:

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

Languages in which Content is available: 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	NA	NA
2	☐ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	NA	NA
3	☐ Showing Practical Demonstrations to the learners	NA	NA
4	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	NA	NA
5	☐ Tutorials/ Assignments/ Drill/ Practice	NA	NA
6	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	NA	NA
7	☐ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	NA	NA

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
Lay (single/ three phase) cable and provide electrification for equipment at construction sites	<i>Prepare for cable laying</i>	15	30		
	PC1. assist superior in planning (method, material specification, time requirement) of cable laying activity at construction sites				
	PC2. read and interpret electrical drawings, specifications, manufacturers guidelines as and when required				
	PC3. check cables, lights and accessories to be used according to instructions/ drawings/ manufacturers specifications as per applicability				
	PC4. inspect work area for embedded service lines, presence of water table, and vicinity of flammable items prior to cable laying				
	PC5. carry out safe isolation of power source as per applicable specification/ electrical safety norms and erect caution signages at appropriate location				
	PC6. arrange for execution of preparatory activities such as digging of trenches, laying of conduits, erection of poles etc.				
	PC7. fill up necessary permits, checklists as per organizational norms for preparatory activities				
	<i>Lay cable and provide electrification for construction equipment</i>	15	40		
	PC8. lay cables according to standard practice through trenches, conduits or by means of poles at construction sites				
	PC9. check for rigidity of poles, condition of exposed cables and fittings, depth and backfilling of trenches, proper barricading as				

	per safety norms as and when necessary				
	PC10. connect cable to power source and electrical equipment/ machinery as per manufacturers guidelines or standard practice				
	PC11. carry out proper termination of cables as per specification or standard practice				
	PC12. install circuit breakers, starters, relays etc. of correct power rating as per specification of the equipment				
	PC13. carry out earthing of the equipment (if applicable) by suitable method				
	PC14. carry out trial run and perform applicable electrical tests to ensure safe and desired working of construction equipment				
	PC15. secure exposed cables and its accessories against man, vehicular movement or any other external abrasive effects by adopting suitable insulation methods or industry recognized standard practices				
	PC16. ensure upkeep of all electrical tools and equipment under operation, according to manufacturers guidelines or standard procedures				
	PC17. ensure tagging of embedded, exposed electrical lines, its accessories and other equipment				
	PC18. ensure proper housekeeping of the work area				
	NOS Total	30	70	-	-
Inspect electrical maintenance of construction equipment as per requirement	<i>Carry out repair and maintenance of cables and construction equipment</i>	30	70		
	PC1. carry out appropriate tests and diagnose electrical faults of equipment as and when necessary				
	PC2. power off equipment under maintenance or take necessary precautions as per standard practice while performing tests on live circuits				

	PC3. carry out safe isolation at power source as per applicable specification/ electrical safety norms and erect caution signages at appropriate location				
	PC4. determine the type (DC/AC) of motors to be repaired or installed				
	PC1. carry out appropriate tests and diagnose electrical faults of equipment as and when necessary				
	PC5. repair or replace faulty parts according to the power rating and manufacturers guideline relevant to circuit under maintenance				
	PC6. use appropriate motor starters according to the specification and power rating of motors during maintenance				
	PC7. carry out winding in armatures of motor if required as per specification of motor				
	PC8. inspect and rectify faults detected in earthing of construction equipment, referring to manufacturers guidelines				
	PC9. replace faulty parts like relays, MCBs, wires, switches, sockets etc				
	PC10. inspect leakage, faults in LV single/ three phase power distribution wirings as per directions, standard practices				
	PC11. operate and inspect transformers to detect faults under close supervision				
	PC12. carry out maintenance of lighting arrangements installed at critically accessible locations such as tower cranes, high masts etc. and replace faulty parts, consumables as and when required				
	PC13. join damaged armored cables (bearing heavy electricity loads) using straight through joints efficiently				
	PC14. operate changeover switches for switching between main power supply & DGS as per requirement				
	PC15. ensure safe and desired working of temporary electrical panels/ distribution boards at construction sites				

	PC16. notify concerned authorities prior to undertaking maintenance activity as per applicable organizational norms	30	70	-	-
	PC17. document readings, conclusions of tests performed as per requirement				
	NOS Total				
Carry out LV electrical wiring and assist the foreman in building electrification works	<i>Perform concealed /exposed wiring and electrification</i>	15	35	-	-
	PC1. perform visual checks of the house wiring components (such as wires, flexible and rigid conduits, PVC raceways, wooden battens, clamps etc.) prior to its use in concealed wiring				
	PC2. read and interpret single phase wiring diagram and assist in estimation of required materials				
	PC3. carry out necessary measurements of cables/ conduits to meet working needs and in order to carry out marking on wall				
	PC4. mark the walls for chasing for concealed wiring, and monitor the chasing work				
	PC5. assist in planning for electrification, and mark locations for installation of raceways and electrical fixtures/ fittings on the walls				
	PC6. lay flexible conduit pipes through RCC structures (slabs, beams, walls) or through chased wall (brick wall) surface as per instruction				
	PC7. ensure to lock conduit pipe in its location using clamps or other standard means				
	PC8. place wires through conduits and raceways ensuring that wires are as per specification and numbers				
	PC9. carry out drilling and cutting works as per requirement				
	<i>Install and maintain electrical fixtures/ fittings, earthing arrangement and home appliances</i>	15	35		
	PC10. prepare tentative budget for household wiring and electrification work				

	PC11. calculate electrical material requirements based on electrical fittings and layouts				
	PC12. carry out safe isolation of power source as per applicable specification/ electrical safety norms and erect caution signages at appropriate location				
	PC13. install electrical fixtures, fittings (such as DBs, switch boards, switches, sockets, lights and wall brackets) at specified locations and carry out termination of cables as per standard practice				
	PC14. perform necessary tests to ensure safe condition of electrical circuit during and post wiring activity using appropriate tools				
	PC15. measure earth resistance and leakage as per requirement, using appropriate electrical devices				
	PC16. carry out electrical earthing work adopting standard procedure and using appropriate earthing components as per instructions				
	PC17. establish new LV connection if required as per circuit load requirement and install household appliances including fan, water pump, refrigerator, fire alarm system, security systems etc				
	PC18. identify and install protective devices of correct power rating, at appropriate locations of wiring				
	PC19. adhere to electrical safety norms and act/ report efficiently on detection of any unsafe situation				
	PC20. note relevant readings and fill up checklist as per requirement				
	NOS Total	30	70	-	-
Work effectively in a team to deliver desired results at the workplace	<i>Interact and communicate in an effective manner</i>	18	42		
	PC1. pass on work related information/ requirement clearly to the team members				

	PC2. inform co-workers and superiors about any kind of deviations from work				
	PC3. report any unresolved problem to the supervisor immediately				
	PC4. obtain instructions from superiors and respond on the same				
	PC5. communicate to team members/subordinates for appropriate work technique and method				
	PC6. seek clarification and advice as per the requirement				
	<i>Support co-workers to execute the project requirements</i>	6	14		
	PC7. hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams				
	PC8. work together with co-workers in a synchronized manner				
	<i>Practice inclusion</i>	6	14		
	PC9. maintain cultural inclusivity at workplace				
	PC10. maintain disability friendly work practices				
	PC11. follow gender neutral practices at workplace				
Plan and organize work to meet expected outcomes	PC12. address discriminatory and offensive behaviour in a professional manner as per organizational policy	30	70	-	-
	NOS Total				
	<i>Plan and prepare for work</i>	10	20		
	PC1. identify the targets and timelines set by superiors				
	PC2. determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task				
	PC3. plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities				
	PC4. prepare the work areas in coordination with team members				

	PC5. plan for waste collection and disposal prior to and after completion of work	5	15		
	<i>Organise required resources as per work plan</i>				
	PC6. arrange the required manpower prior to commencement of work				
	PC7. organize the required materials, tools and tackles required for the task	15	35		
	<i>Complete work as per the plan</i>				
	PC8. engage allocated manpower in an appropriate manner				
	PC9. employ correct tools, tackles and equipment for the desired work				
	PC10. provide guidance to the subordinates to obtain desired outcome				
	PC11. use resources in an optimum manner to avoid any unnecessary wastage				
	PC12. use tools, tackles and equipment carefully to avoid damage				
	PC13. ensure the work processes adopted are in line with the specified standards and instructions				
	PC14. complete the work with the allocated resources within specified time				
	PC15. clean and organise the workplace after completion of task				
	NOS Total	30	70	-	-
Work according to personal health, safety and environment protocols at construction site	<i>Follow safety norms as defined by the organization</i>	6	14		
	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority				
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities				
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable				

	PC4. follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site	15	35		
	PC5. select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline				
	PC6. identify near miss, unsafe condition and unsafe act				
	<i>Adopt healthy & safe work practices</i>				
	PC7. use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection, Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)				
	PC8. handle all required tools, tackles, materials and equipment safely				
	PC9. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines				
	PC10. check and install all safety equipment as per standard guidelines				
	PC11. follow safety protocols and practices as laid down by site EHS department				
	PC12. obtain "height pass" clearance for working at heights				
	<i>Implement good housekeeping practices</i>	6	14		
	PC13. collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature				
	PC14. apply ergonomic principles wherever required				
	<i>Follow infection control guidelines as per applicability</i>	3	7		
	PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices				
	PC16. clean and disinfect all materials, tools and supplies before and after use				

	PC17. report immediately to concerned authorities regarding signs and symptoms of illness of self and others				
	NOS Total	30	70	-	-
DGT/VSQ/N0101: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>				
	PC1. understand the significance of employability skills in meeting the job requirements	1	1		
	<i>Constitutional values – Citizenship</i>				
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	1	1		
	<i>Becoming a Professional in the 21st Century</i>				
	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.	1	3		
	<i>Basic English Skills</i>				
	PC4. speak with others using some basic English phrases or sentences	2	3		
	<i>Communication Skills</i>				
	PC5. follow good manners while communicating with others	1	1		
	PC6. work with others in a team				
	<i>Diversity & Inclusion</i>				
	PC7. communicate and behave appropriately with all genders and PwD	1	1		
	PC8. report any issues related to sexual harassment				
	<i>Financial and Legal Literacy</i>				
	PC9. use various financial products and services safely and securely	3	4		

	PC10. calculate income, expenses, savings etc.				
	PC11. approach the concerned authorities for any exploitation as per legal rights and laws				
	<i>Essential Digital Skills</i>				
	PC12. operate digital devices and use its features and applications securely and safely	4	6		
	PC13. use internet and social media platforms securely and safely				
	<i>Entrepreneurship</i>				
	PC14. identify and assess opportunities for potential business	3	5		
	PC15. identify sources for arranging money and associated financial and legal challenges				
	<i>Customer Service</i>				
	PC16. identify different types of customers	2	2		
	PC17. identify customer needs and address them appropriately				
	PC18. follow appropriate hygiene and grooming standards				
	<i>Getting ready for apprenticeship & Jobs</i>				
	PC19. create a basic biodata	1	3		
	PC20. search for suitable jobs and apply				
	PC21. identify and register apprenticeship opportunities as per requirement				
	NOS Total	20	30	-	-

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.

1. Assessment system Overview:

Assessment is done through CSDCI affiliated Assessment Agencies. Assessors are trained & certified by CSDCI after Training Of Assessor (TOA) program. Assessments is conducted to gauge and assess the trainee's skill and knowledge competency in the specified areas. The assessment will have both theory and practical components in 30:70 ratio for **Construction Electrician - LV** job role.

During the practical task, trainees are assessed on their workmanship, quality of finished product and time management. They will be graded for all their assessments based on the approved assessment strategy which is signed off by CSDCI. The Assessor submits an assessment plan to CSDCI prior to assessments.

The assessment plan contains the following information:

- What will be assessed, i.e. the competency based on each NOS based on theory and practical questions
- How assessment will occur i.e. methods of assessment
- When the assessment will occur
- Duration of assessment
- Where the assessment will take place i.e. context of the assessment (workplace/simulation)
- The criteria for decision making i.e. those aspects that will guide judgments
- Where appropriate, any supplementary criteria used to make a judgment on the level of performance.

2. Testing Environment:

- Training partner shares the batch start date and end date, number of trainees and the job role.
- Assessment will be fixed for a day after the end date of training. It could be next day or later. Assessment will be conducted at the training venue/test center.
- The knowledge/theory assessments is conducted with proper seating arrangements with enough space between the candidates to prevent mal-practicing.
- Question set for theory and practical will be distributed to each candidate by the Assessor. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on his theoretical knowledge of the subject. The skill /practical assessments will be conducted in the approved test centers. The training provider will ensure adequate tools and materials are available to conduct the practical test.
- If number of candidates are more than 30, more assessors will be organized on same day to complete the assessment.
- The assessment has to comprise of two components, namely:

- Knowledge assessment (theory/viva assessment)
- Skill assessment (practical/hands-on skill assessment)

3. Mode of assessment:

- Demonstration/Practical for Performance /Skill Assessment
- Synoptic multiple-choice question test
- Viva for Knowledge Assessment

4. Performance/skill assessment:

- The performance/skill assessment will be conducted through demonstration/practical
- For the practical test trainees are assessed through a given task, which they have to complete correctly for them to be marked as passed.
- The assessment is conducted in a simulated working environment. Due to this fact, the assessors must note that the naturally occurring evidence of competence is unavailable or infrequent. Simulation must be undertaken in a Realistic Working Environment which provides an environment that replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.

5. Knowledge Assessment:

- The knowledge assessments are conducted through written test/ viva.
- Synoptic test is used for this. It is an MCQ (Multiple Choice Question) test which are prepared externally and externally marked, meaning by agency having no link with training partners. The test may be conducted by the assessor in the oral mode, if required, considering the lack of reading and comprehending acumen (skills) of trainees. In such cases, the assessor will mention it on top of the MCQ submitted to CSDCI.
- The assessment strategy, weightage and duration of assessment for **Construction Electrician - LV** is summarized below

Assessment Type	Formative or Summative	Strategies	Weightage	Duration (hours)
Knowledge	Summative	MCQ/Viva	30	1.5
skill	Summative	Structured Practical Task	70	5.5

6. Assessment Quality Assurance framework:

- CSDCI has developed assessment criteria framework for each Qualification pack as per National Occupational Standards. The criteria framework includes weightages/marks for each criterion under knowledge and skill. The criteria ensure quality assurance as it ensures valid, consistent and fair assessments at all locations. Issued to the affiliated Assessment body. The Assessment body develop questions based on CSDCI issued assessment criteria.
- Evidences in the form of answer sheets in case of knowledge assessments are collected. For skill assessments videos and photographs are prepared as evidence. These are submitted by the assessor to the assessment agency. CSDCI does random checks of the same with the participant/ trainee's ID and ascertains authenticity and validity of assessments.

- The training partner will intimate the time of arrival of the assessor and time of leaving the venue. Random spot checks/audit is conducted by CSDCI to monitor assessment.

7. Methods of Validation:

- Unless the trainee is registered, the person cannot undergo assessment. To further ensure that the person registered is the person appearing for assessment, ID verification is carried out. Aadhar card number is part of registering the candidate for training. This forms the basis of further verification during the assessment.
- Assessor conducts the assessment through theory and practical questions developed in accordance with the assessment criteria and guidelines issued by CSDCI. This too is verified by random audits carried out by CSDCI.
- Evidences for assessments are to be collected and submitted to CSDCI for verification as per demand.
- Assessment agency is responsible to put details in SIP. CSDCI will also validate the data and result received from the assessment agency.

8. Method of assessment documentation and access:

- The assessment agency will upload the result of assessment in the portal. The data will not be accessible for change by the assessment agency after the upload. The assessment data will be validated by CSDCI assessment team. After upload, only CSDCI can access this data.
- CSDCI approves the results within five days after which results are uploaded on SIDH by Assessment Agency.

9. On the Job:

- On job training (OJT), candidates undergo training and learning at actual workplace for a fixed period of time and a certain weightage of assessment is allocated out of total skill weightage of Qualification Pack for undergoing OJT as stipulated by CSDCI. This OJT score and assessors' end point score are combined to arrive at final Marking/grading of trainees' skill test. The OJT score is determined by Supervisor of company under which candidates undergo on job training.

Annexure: Acronym and Glossary

<i>Acronym</i>	<i>Description</i>
MSDE	Ministry of Skill Development and Entrepreneurship
NCVET	National Council for Vocational Education and Training
NSDC	National Skill Development Corporation
SIDH	Skill India Digital Hub
CSDCI	Construction Skill Development Council of India
AB	Awarding Body
SSC	Sector Skill Council
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
SANKALP	Skill Acquisition and Knowledge Awareness for Livelihood Promotion
STRIVE	Skills Strengthening for Industrial Value Enhancement
JSS	Jan Shikshan Sansthan
STT	Short Term Training
RPL	Recognition of Prior Learning
NAPS	National Apprenticeship Promotion Scheme
AA	Assessment Agency
TP	Training Provider / Training Partner
TC	Training Centre
ITI	Industrial Training Institute
NSQC	National Skill Qualification Committee
NSQF	National Skills Qualification Framework
Q-File	Qualification File
QP	Qualification Pack
MC	Model Curriculum
NOS	National Occupational Standards
PC	Performance Criteria
KU	Knowledge and Understanding
GS	Generic Skills
MCQ	Multiple Choice Question

EHS	Environment Health and Safety
PPE	Personal Protective Equipment
QA/QC	Quality Assurance / Quality Control
LT	Low Tension (Electrical wiring system up to 1kV)
HT	High Tension (Electrical wiring system above 1kV)
MCB	Miniature Circuit Breaker
ELCB	Earth Leakage Circuit Breaker
RCCB	Residual Current Circuit Breaker
RCBO	Residual Current Breaker with Overcurrent
ACSR	Aluminium Conductor Steel Reinforced
PVC	Polyvinyl Chloride (used in electrical wiring insulation)
XLPE	Cross-Linked Polyethylene (used in power cables)
SMPS	Switched Mode Power Supply
IP Rating	Ingress Protection Rating (for electrical enclosures)
VFD	Variable Frequency Drive (used for motor speed control)
DOL Starter	Direct-On-Line Starter (used for motors)
CT	Current Transformer
PT	Potential Transformer
LED	Light Emitting Diode
UPS	Uninterruptible Power Supply
DG Set	Diesel Generator Set

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

Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do it upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Annexure: Career Progression

