



## QUALIFICATION FILE

### Assistant Electrician

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: 3

**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:**

**Name:** Abhisek Prasad Mishra

**Position in the Organization:** Deputy Manager - Standards & Research

**Address:** Same as above

**Tel number(s):** 0124-4513915-18 Ext-23

**E-mail address:** [abhisek@csdcindia.org](mailto:abhisek@csdcindia.org)

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## Section 1: Basic Details

1.	<b>Qualification Name</b>	Assistant Electrician																				
2.	<b>Sector/s</b>	Construction																				
3.	<b>Type of Qualification:</b> <input type="checkbox"/> New <input checked="" type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	<b>NQR Code &amp; version of existing/previous qualification:</b> (QG-03-CO-03370-2024-V1.1-CSDCI & v 3.0)	<b>Qualification Name of existing/previous version:</b> Assistant Electrician																			
4.	<b>a. OEM Name</b> <b>b. Qualification Name</b> <i>(Wherever applicable)</i>	NA																				
5.	<b>National Qualification Register (NQR) Code &amp;Version</b> <i>(Will be issued after NSQC approval)</i>	QG-03-CO-03951-2025-V2-CSDCI & v 4.0	<b>6. NCrF/NSQF Level: 3</b>																			
7.	<b>Award (Certificate/Diploma/Advance Diploma/ Any Other</b> <i>(Wherever applicable specify multiple entry/exits also &amp; provide details in annexure)</i>	Certificate																				
8.	<b>Brief Description of the Qualification</b>	An Assistant Electrician assists the electrician in electrical work for the installation, repair, and maintenance of temporary Low Voltage (LV) electrical connections in the construction sites and permanent connections at residential and commercial buildings. The individual is engaged in laying conduits for LV single phase wiring.																				
9.	<b>Eligibility Criteria for Entry for Student/Trainee/Learner/Employee</b>	<b>a. Entry Qualification &amp; Relevant Experience:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 60%;">Academic/Skill Qualification (with Specialization - if applicable)</th> <th style="width: 30%;">Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10<sup>th</sup> grade pass</td> <td></td> </tr> <tr> <td>2</td> <td>9<sup>th</sup> grade pass</td> <td>1-year relevant experience</td> </tr> <tr> <td>3</td> <td>8<sup>th</sup> grade pass</td> <td>2-year relevant experience</td> </tr> <tr> <td>4</td> <td>5<sup>th</sup> grade pass</td> <td>5-year relevant experience</td> </tr> <tr> <td>5</td> <td>Previous relevant qualification of NSQF Level 2 (Helper Electrician)</td> <td>3-year relevant experience</td> </tr> </tbody> </table>			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	10 <sup>th</sup> grade pass		2	9 <sup>th</sup> grade pass	1-year relevant experience	3	8 <sup>th</sup> grade pass	2-year relevant experience	4	5 <sup>th</sup> grade pass	5-year relevant experience	5	Previous relevant qualification of NSQF Level 2 (Helper Electrician)	3-year relevant experience
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1	10 <sup>th</sup> grade pass																					
2	9 <sup>th</sup> grade pass	1-year relevant experience																				
3	8 <sup>th</sup> grade pass	2-year relevant experience																				
4	5 <sup>th</sup> grade pass	5-year relevant experience																				
5	Previous relevant qualification of NSQF Level 2 (Helper Electrician)	3-year relevant experience																				

		<b>b. Min. Job Entry Age: 18 Years</b>																							
10.	<b>Credits Assigned to this Qualification, Subject to Assessment</b> <i>(as per National Credit Framework (NCrF))</i>	13	<b>11. Common Cost Norm Category (I/II/III)</b> <i>(wherever applicable): I</i>																						
12.	<b>Any Licensing requirements for Undertaking Training on This Qualification</b> <i>(wherever applicable)</i>	NA																							
13.	<b>Training Duration by Modes of Training Delivery</b> <i>(Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</i>	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>120</td> <td>240</td> <td>30</td> <td></td> <td>390</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><i>(Refer Blended Learning Annexure for details)</i></p>						Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	120	240	30		390	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																				
Classroom (offline)	120	240	30		390																				
Online																									
14.	<b>Aligned to NCO/ISCO Code/s</b> <i>(if no code is available mention the same)</i>	NCO-2015/7411.0100																							
15.	<b>Progression path after attaining the qualification</b> <i>(Please show Professional and Academic progression)</i>	<i>Construction Electrician - LV</i>																							
16.	<b>Other Indian languages in which the Qualification &amp; Model Curriculum are being submitted</b>	Hindi																							
17.	<b>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:																							
18.	<b>Is the Job Role Amenable to Persons with Disability</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", specify applicable type of Disability:																							
19.	<b>How Participation of Women will be Encouraged</b>	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.	<b>Are Greening/ Environment Sustainability Aspects Covered</b> <i>(Specify the NOS/Module which covers it)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (CON/N9001)	
21.	<b>Is Qualification Suitable to be Offered in Schools/Colleges</b>	Schools <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
22.	<b>Name and Contact Details of Submitting / Awarding Body SPOC</b> <i>(In case of CS or MS, provide details of both Lead AB &amp; Supporting ABs)</i>	Name: Abhisek Prasad Mishra Email: <a href="mailto:abhisek@csdcindia.org">abhisek@csdcindia.org</a> Contact No.: 0124-4513915-18 Ext-23 Website: <a href="http://www.csdcindia.org">www.csdcindia.org</a>	
23.	<b>Final Approval Date by NSQC: 08-05-2025</b>	24. Validity Duration: 3 Years	25. Next Review Date: 30-04-2028

NSQC APPROVED

## 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.	Handle hand and power tools relevant to construction electrical works	CON/N0602 & v 5.0	Core	3	2	20	35	05	-	60	30	70	-	-	100	20
2.	Install temporary lighting arrangement at construction sites	CON/N0603 & v 5.0	Core	3	2	15	35	10	-	60	30	70	-	-	100	20
3.	Assist in LV (low voltage) electrical wiring at permanent structures	CON/N0604 & v 5.0	Core	3	2	20	35	05	-	60	30	70	-	-	100	20
4.	Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site	CON/N0605 & v 5.0	Core	3	3	20	60	10	-	90	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)
5.	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	5
6.	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	5
7.	Plan and organize work to meet expected outcomes	CON/N8002 & v 4.0	Non-Core	4	1	05	25	-	-	30	30	70	-	-	100	5
8.	Employability Skills (30 Hours)	DGT/VSQ/N0101 & v 1.0	Non-Core	2	1	30	-	-	-	30	20	30	-	-	50	5
<b>Duration (in Hours) / Total Marks</b>					<b>13</b>	<b>120</b>	<b>240</b>	<b>30</b>	<b>-</b>	<b>390</b>	<b>230</b>	<b>520</b>	<b>-</b>	<b>-</b>	<b>750</b>	<b>100</b>

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	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

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)
<b>Duration (in Hours) / Total Marks</b>						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	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
<b>Duration (in Hours) / Total Marks</b>						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 Works	OR	
		Diploma	Electrical Engineering	3	Site Execution (Electrical Work)	1	Construction Electrical Works	OR	
		ITI	Relevant Trade	6	Site Execution (Electrical Work)	1	Construction Electrical Works	OR	
		Graduation	in any Stream	6	Site Execution (Electrical Work)	1	Construction Electrical Works	OR	
		Ex-Army Graduate	in any Stream	6	Site Execution (Electrical Work)	1	Construction Electrical Works		

2.	<b>Master Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)</b>	<table border="1"> <thead> <tr> <th rowspan="2">Minimum Educational Qualification</th> <th rowspan="2">Specialization</th> <th colspan="2">Relevant Industry Experience</th> <th colspan="2">Preferable Training Experience</th> </tr> <tr> <th>Years</th> <th>Specialization</th> <th>Years</th> <th>Specialization</th> </tr> </thead> <tbody> <tr> <td>B.E. / B.Tech</td> <td>Electrical Engineering</td> <td>6</td> <td>Site Execution (Electrical Work)</td> <td>1</td> <td>Construction Electrical Works</td> </tr> <tr> <td colspan="6" style="text-align: center;">OR</td> </tr> <tr> <td>Diploma</td> <td>Electrical Engineering</td> <td>8</td> <td>Site Execution (Electrical Work)</td> <td>1</td> <td>Construction Electrical Works</td> </tr> <tr> <td colspan="6" style="text-align: center;">OR</td> </tr> <tr> <td>ITI</td> <td>Relevant Trade</td> <td>10</td> <td>Site Execution (Electrical Work)</td> <td>1</td> <td>Construction Electrical Works</td> </tr> <tr> <td colspan="6" style="text-align: center;">OR</td> </tr> <tr> <td>Existing TOT certified Trainer in Skill Qualification</td> <td>Assistant Electrician</td> <td>2</td> <td>Site Execution (Electrical Work)</td> <td>5</td> <td>Construction Electrical Works</td> </tr> </tbody> </table>	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 Works	OR						Diploma	Electrical Engineering	8	Site Execution (Electrical Work)	1	Construction Electrical Works	OR						ITI	Relevant Trade	10	Site Execution (Electrical Work)	1	Construction Electrical Works	OR						Existing TOT certified Trainer in Skill Qualification	Assistant Electrician	2	Site Execution (Electrical Work)	5	Construction Electrical Works
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Existing TOT certified Trainer in Skill Qualification	Assistant Electrician	2	Site Execution (Electrical Work)	5	Construction Electrical Works																																																	
3.	<b>Tools and Equipment Required for Training</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If “Yes”, details to be provided in Annexure)																																																				
4.	<b>In Case of Revised Qualification, Details of Any Upskilling Required for Trainer</b>	Not Applicable																																																				

### Section 4: Assessment Related

1	<b>Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	<table border="1"> <thead> <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> </thead> <tbody> <tr> <td>B.E. / B.Tech</td> <td>Electrical Engineering</td> <td>2</td> <td>Site Execution (Electrical Work)</td> </tr> <tr> <td colspan="4" style="text-align: center;">OR</td> </tr> <tr> <td>Diploma</td> <td>Electrical Engineering</td> <td>5</td> <td>Site Execution (Electrical Work)</td> </tr> <tr> <td colspan="4" style="text-align: center;">OR</td> </tr> <tr> <td>ITI</td> <td>Relevant Trade</td> <td>7</td> <td>Site Execution (Electrical Work)</td> </tr> </tbody> </table>				Minimum Educational Qualification	Specialization	Relevant Industry Experience		Years	Specialization	B.E. / B.Tech	Electrical Engineering	2	Site Execution (Electrical Work)	OR				Diploma	Electrical Engineering	5	Site Execution (Electrical Work)	OR				ITI	Relevant Trade	7	Site Execution (Electrical Work)
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2	<b>Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	<table border="1"> <thead> <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> </thead> <tbody> <tr> <td>Graduation</td> <td>In Relevant Stream</td> <td>1</td> <td>-</td> </tr> <tr> <td colspan="4" style="text-align: center;">OR</td> </tr> <tr> <td>Diploma</td> <td>In Relevant Stream</td> <td>2</td> <td>-</td> </tr> </tbody> </table>				Minimum Educational Qualification	Specialization	Relevant Technical Experience		Years	Specialization	Graduation	In Relevant Stream	1	-	OR				Diploma	In Relevant Stream	2	-								
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				Years	Specialization																										
		Graduation	In Relevant Stream	1	-																										
OR																															
Diploma	In Relevant Stream	2	-																												
3	<b>Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	<table border="1"> <thead> <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> </thead> <tbody> <tr> <td>B.E. / B.Tech</td> <td>Electrical Engineering</td> <td>10</td> <td>Site Execution (Electrical Work)</td> </tr> <tr> <td colspan="4" style="text-align: center;">OR</td> </tr> <tr> <td>Diploma</td> <td>Electrical Engineering</td> <td>13</td> <td>Site Execution (Electrical Work)</td> </tr> </tbody> </table>				Minimum Educational Qualification	Specialization	Relevant Industry Experience		Years	Specialization	B.E. / B.Tech	Electrical Engineering	10	Site Execution (Electrical Work)	OR				Diploma	Electrical Engineering	13	Site Execution (Electrical Work)								
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OR																															
Diploma	Electrical Engineering	13	Site Execution (Electrical Work)																												

4	<b>Assessment Mode</b> ( <i>Specify the assessment mode</i> )	Offline
5	<b>Tools and Equipment Required for Assessment</b>	<input checked="" type="checkbox"/> Same as for training <input type="checkbox"/> Yes <input type="checkbox"/> No ( <i>details to be provided in Annexure-if it is different for Assessment</i> )

### Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1	<b>Latest Skill Gap Study (not older than 2 years) (Yes/No):</b> Yes
2	<b>Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):</b> Yes
3	<b>Government /Industry initiatives/ requirement (Yes/No):</b> Yes
4	<b>Number of Industry validation provided:</b> 28
5	<b>Estimated nos. of persons to be trained and employed:</b> 75,000 & 52,500
6	<b>Evidence of Concurrence/Consultation with Line Ministry/State Departments:</b> (If “No”, why): No, Last Communication was on 09/04/2025

### Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

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

9.	<b>Supporting Document:</b> Career Progression (Mandatory - Public view)	Yes
10.	<b>Supporting Document:</b> Occupational Map (Mandatory)	Yes
11.	<b>Supporting Document:</b> Assessment SOP (Mandatory)	Yes
12.	<b>Any other document you wish to submit:</b>	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
<b>Professional Theoretical Knowledge/Process</b>	<ul style="list-style-type: none"> <li>• Process of handling hand and power tools relevant to construction electrical works</li> <li>• Process of installing temporary lighting arrangements at construction sites.</li> <li>• Process of assisting in LV (low voltage) electrical wiring at permanent structures.</li> <li>• Process of assembling, installing and maintaining temporary LV electrical panels (distribution boards) at construction sites.</li> </ul>	<p>As detailed, the entire process followed by an Assistant Electrician is to handle hand and power tools relevant to construction electrical works, install temporary lighting arrangements at construction sites, assist in LV (low voltage) electrical wiring at permanent structures and assembling, installing and maintaining temporary LV electrical panels (distribution boards) at construction site.</p> <p>As the work is routine and is repeated multiple times, the work becomes predictable.</p> <p>As the Assistant Electricians are required to perform the task as per the required codes and standards following</p>	<p>3</p>

	<ul style="list-style-type: none"> <li>● Process of working effectively in a team to deliver desired results at the workplace</li> <li>● Process of planning and organizing work to meet expected outcomes</li> <li>● Process of working according to personal health, safety and environment protocols at the construction site</li> </ul>	<p>the method statement available for the task, they have a clear work situation.</p>	
<p><b>Professional and Technical Skills/ Expertise/ Professional Knowledge</b></p>	<ul style="list-style-type: none"> <li>● Know the standard practices for electrical works</li> <li>● Know how to use hand, power tools to carry out required activities</li> <li>● Understand the basic principles of electrical current flow and fundamental terms</li> <li>● Understand the basic concept of AC and DC</li> <li>● Know electrical theory such as Ohms law, Amperes law, electromagnetic field and its effects</li> <li>● Know the types of wires, cables based on their insulation and their</li> </ul>	<p>The knowledge required for an Assistant Electrician is factual, as it is specific and limited to the knowledge of standard practices for electrical works; use hand and power tools to carry out required activities; principles of electrical current flow and fundamental terms; concept of AC and DC; electrical theory such as Ohms law, Amperes law; electromagnetic field and its effects; types of wires, cables based on their insulation and their respective uses in LV electrical works; features of resistors, switches, fuses and various circuit protection devices; wiring symbols of single and three phase electrical wiring; electrical units of measurement and their symbols; single line diagram (SLD), and schematics, wiring diagrams of electrical connections; concept of</p>	<p>3</p>

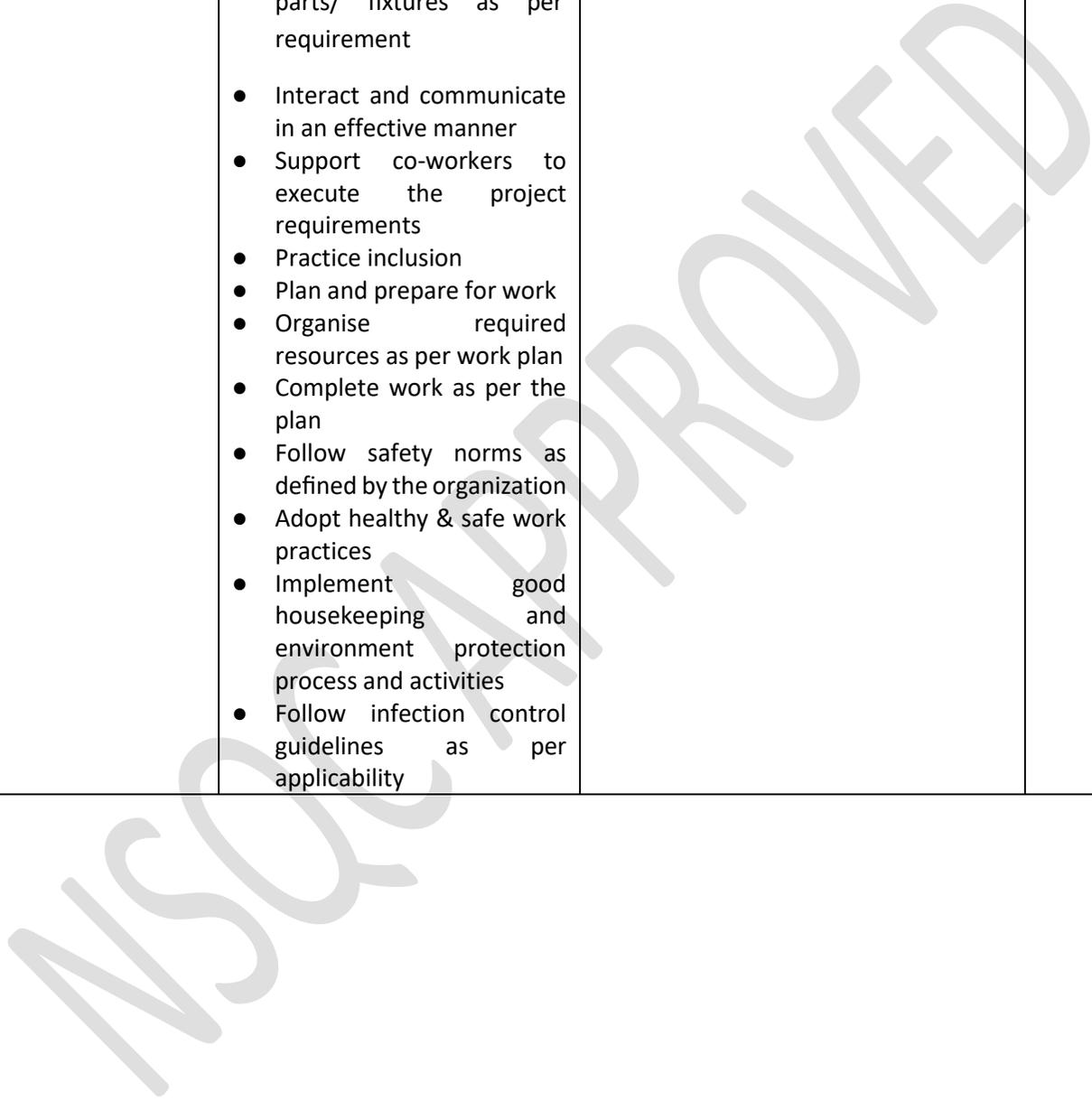
	<p>respective uses in LV electrical works</p> <ul style="list-style-type: none"><li>● Know the features of resistors, switches, fuses and various circuit protection devices</li><li>● Understand wiring symbols of single and three phase electrical wiring</li><li>● Know electrical units of measurement and their symbols</li><li>● Understand single line diagram (SLD), and schematics, wiring diagrams of electrical connections</li><li>● Understand the basic concept of single-phase and three phase LV connections</li><li>● Know the basic principles for setting and maintaining temporary lighting and other related electrical systems</li><li>● Know the process of joining of LV cable by straight-through joints and other standard procedures</li></ul>	<p>single-phase and three phase LV connections; principles for setting and maintaining temporary lighting and other related electrical systems; process of joining of LV cable by straight-through joints and other standard procedures</p> <p>Therefore, their knowledge is applicable to their field of work only.</p>	
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<p><b>Employment Readiness &amp; Entrepreneurship Skills &amp; Mind-set/Professional Skill</b></p>	<ul style="list-style-type: none"> <li>● Handle and use hand/power tools</li> <li>● Select and use electrical measuring devices, electrical devices, diagnostic devices</li> <li>● Check cable, conduits , lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories</li> <li>● Lay cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions</li> <li>● Select the type and wattage of lights considering illumination requirement at worksite</li> <li>● Select the right method to carry out termination of LV cables as per standard practice</li> <li>● Select house wiring components (such as wires, flexible and rigid conduits, PVC raceways,</li> </ul>	<p>As indicated the skill set is required to handle and use hand/power tools, select and use electrical measuring devices, electrical devices, diagnostic devices, check cable, conduits , lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories, lay cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions, select the type and wattage of lights considering illumination requirement at worksite, select the right method to carry out termination of LV cables as per standard practice, select house wiring components (such as wires, flexible and rigid conduits, PVC raceways, wooden battens, clamps etc.), read and interpret single phase LV wiring diagram, relevant SLDs(Single Line Diagrams), instructions, safety guidelines, manufacturers specification, test electrical circuit during and post wiring activity using appropriate tools, install required fixtures like power sockets, switches, wires, MCBs(Miniature Circuit Breakers), connect DB(Distribution Board) to main power cable and perform standard tests, repair or</p>	<p>3</p>
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	<p>wooden battens, clamps etc.)</p> <ul style="list-style-type: none"> <li>• Read and interpret single phase LV wiring diagram, relevant SLDs (Single Line Diagrams), instructions, safety guidelines, manufacturers specification</li> <li>• Test electrical circuit during and post wiring activity using appropriate tools</li> <li>• Install required fixtures like power sockets, switches, wires, mcbs(Miniature Circuit Breakers)</li> <li>• Connect DB(Distribution Board) to main power cable and perform standard tests</li> <li>• Repair or replace faulty part, light fixtures and components</li> </ul>	<p>replace faulty part, light fixtures and components.</p>	
<p><b>Broad Learning Outcomes/Core Skill</b></p>	<ul style="list-style-type: none"> <li>• Carry out selection and use of hand, power tools and electrical devices relevant to construction electrical works.</li> </ul>	<p>The job holder is expected to carry out selection and use of hand, power tools and electrical devices relevant to construction electrical works, install temporary lighting arrangements at construction sites, carry installation of</p>	<p>3</p>

	<ul style="list-style-type: none"> <li>• Carry out the process of installing temporary lighting arrangements at construction sites.</li> <li>• Carry installation of LV electrical wiring at permanent structures.</li> <li>• Carry out assembling, installation, and maintenance of temporary LV electrical panels (distribution boards) at the construction site.</li> </ul>	<p>LV electrical wiring at permanent structures, carry out assembling, installation, and maintenance of temporary LV electrical panels (distribution boards) at the construction site.</p>	
<p><b>Responsibility</b></p>	<p>The individual in this job role will be responsible for the below-mentioned activities:</p> <ul style="list-style-type: none"> <li>• Handle hand/power tools for electrical works.</li> <li>• Installation of temporary lighting arrangements at construction sites</li> <li>• Maintenance of installed lighting arrangement.</li> <li>• Provide assistance for LV electrical wiring work in permanent structures</li> <li>• Assemble temporary LV power distribution panels (distribution boards)</li> <li>• Repair/replace faulty</li> </ul>	<p>An Assistant Electrician assists the electrician in electrical work for the installation, repair, and maintenance of temporary Low Voltage (LV) electrical connections in the construction sites and permanent connections at residential and commercial buildings. The individual is engaged in laying conduits for LV single phase wiring.</p>	<p>3</p>

	<p>parts/ fixtures as per requirement</p> <ul style="list-style-type: none"><li>● Interact and communicate in an effective manner</li><li>● Support co-workers to execute the project requirements</li><li>● Practice inclusion</li><li>● Plan and prepare for work</li><li>● Organise required resources as per work plan</li><li>● Complete work as per the plan</li><li>● Follow safety norms as defined by the organization</li><li>● Adopt healthy &amp; safe work practices</li><li>● Implement good housekeeping and environment protection process and activities</li><li>● Follow infection control guidelines as per applicability</li></ul>		
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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	15
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	15
14	Ear plugs	Nos	30
15	Insulated rubber gloves	Nos	30
16	Safety belt	Nos	30
17	Safety shoes	Nos	30
18	Safety goggles	Nos	30
19	Face shield	Nos	15
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	2
27	Tungsten bulb/ CFL/FSL bulb	Nos	10
28	Electrical socket (set)	Nos	5
29	Chasing machine	Nos	2
30	Drilling machine	Nos	3
31	Cutting machine	Nos	2
32	Marking tools	Nos	10
33	Spirit level	Nos	10
34	Measuring tape	Nos	10
35	Tong tester	Nos	5
36	Megger	Nos	2
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	10
45	Screw Drivers (set)	Nos	10
46	Pliers	Nos	30
47	Electrical Tape	Nos	30
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
61	Electric Wires and Cables	Met	10

**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

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### 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	Larsen and Toubro Ltd	J Raguraman	Head, CSTD	PB No 979, Mount Poonamallee Road, Manapakkam, Chennai, 600089	9943247482	jraguraman@Intecc.com	
2	National Academy of Construction	M Indra Kiran	Director	Near SS Convention Center, Labbipet, Vijayawada, Andhra Pradesh, PIN: 520010	984947 0249	nacaprtrainings@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, Panitanki More, 40/107, Sevoke Rd, Ward 11, Near Pani Tanki More (Clock Tower),	8240040261	planning@kamac.in	

				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.co m	
7	OP Jindal Community College	Om Prakash Verma	Principal	O P Jindal Industrial Park, Tumidih, Chhattisgarh 496107		omprakash.verma@o pjccraigarh.edu.in	
8	Poddar Infratech Pvt Ltd	Ms. Neha Devgan	Contracts Manager	202, Crowne Heights, Sector 10 , Rohini , New Delhi	8449521881	<a href="mailto:letters@poddarinfra.com">letters@poddarinfra.c om</a>	
9	Solidstone Constructions	Pragadeeshwaran R J	Principal Designer & Chief Execution (Civil)	7/2 Perumal Nagar, No4 Veerapandi, CBE – 19	7904788630	<a href="mailto:solidstone.projects@gmail.com">solidstone.projects@g mail.com</a>	<a href="https://www.linkedin.com/in/pragadeeshwaran-r-j-6baab7193">linkedin.co m/in/praga deeshwara n-r-j- 6baab7193</a>
10	Star Projects Services Pvt Ltd	H. Asgar	9811376288	K-108 A, First Floor, Above JD Saloon, Thokar No. 5, Abul Fazal Enclave Part –I, Jamia Nagar, Okhla, N. Delhi 25	9811376288	starprojectsservices@ gmail.com	
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.co m	
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@iitg.ac.i n	

14	AK Consulting	Nirman Jain	Technical Head	6th Cross Rd, 1st Stage, Kadugondanahalli, 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@aituniv ersal.com	
16	Asirbadh Projects and Infrastructure Limited	Kunwar Jee	GM (Projects)	A.G. Office Road, Doanda, Ranchi-834002, Jharkhand.	7858801901	ahplmd@yahoo.com	
17	Donge Project Management Consultants Pvt. Ltd.	Balkrishna Kulkarni	President	401, Imperial Heights, Akshar Chowk, OP Road, Vadodara	9819657656	balkrishna.kulkarni@d ongrepmc.com	
18	Ephicity Lifescience Analytics	Rahul Kumar Kaushik	Sr. Manager	2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka 560076	8859885973	rahul.Kaushik@ephica cy.com	
19	Freelance Architect (Individual Consultant)	Garvit Sharma	Architect	A-101 Radha Krishna Lane, Kaushambi, Ghaziabad, U.P	9971967901	grsharma97@gmail.co m	
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@knowhowscho ols.com	
22	L& T Skill Trainers Academy	DK Sharma	Principal - CSTI	Larsen & Toubro Ltd. Near Custom House, Versova Creek Madh Jetty, Madh, Mumbai, 400061	7660986699	deepaks@Intecc.com	
23	LK Engicons	Sameer	Owner	114, Bhawanpur, Meerut, UP, 250001	9808170639	sales@lkengicons.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@manpower.co.in	
25	Senryaku Management Private Limited	Udit Kumar	Consultant	UTC031, DLF The Ultima, Sector 81, Gurugram, HR 122004	9690909024	udit.kau@gmail.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@gmail.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	20,000	14,000	4,000	2,800	Subject to the requirement of the Industry	Subject to the requirement of the Industry

2026-27	25,000	17,500	5,000	3,500	Subject to the requirement of the Industry	Subject to the requirement of the Industry
2027-28	30,000	21,000	6,000	4,200	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	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
V 3.0	2022-23	3017	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA
V 3.0	2023-24	36265	5618	5084	3559	NA	NA	NA	NA	NA	NA	NA	NA
V 3.0	2024-25	20762	26277	23956	16769	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. APSSDC
2. ASAP Kerela
3. ASDM
4. BoCW
5. BSDM
6. CPWD
7. CSR
8. DDUGKY
9. DDU-KK
10. DMF (District Mineral Foundation)
11. Fee Based
12. GSDM

13. HPKVN
14. HSDM
15. Industry Funded
16. JJM- HP
17. JJM-AP
18. JJM-MP
19. JJM-Tripura
20. JSMD
21. MAPCET
22. MEPMA
23. Minister for Minority Affairs
24. Ministry of DoNER
25. MMKVY
26. MMKVY (RAJVIK)
27. MoHUA- NIPUN
28. MMKSY
29. MMYSY
30. NSDC - Saudi Arabia
31. NSDC - UAE
32. NULM
33. OSDA
34. PBSSD
35. PMAY-G
36. PMKUVA
37. PMKVY 2.0
38. PMKVY 3.0
39. PMKVY 4.0
40. PSDM Sankalp
41. RSLDC
42. Sankalp SP
43. Seekho aur Kamao (सीखो और कमाओ)- MoMA (NSDC)

- 44. TRICOR-NAC
- 45. UKSDM
- 46. UPSDM
- 47. YuvaKeralam

**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	<input type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge	NA	NA
2	<input type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	NA	NA
3	<input type="checkbox"/> Showing Practical Demonstrations to the learners	NA	NA
4	<input type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	NA	NA
5	<input type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice	NA	NA
6	<input type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations	NA	NA
7	<input type="checkbox"/> 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
<b>Handle hand and power tools relevant to construction electrical works</b>	PC1.perform basic checks on power tools prior to use	30	70	-	-
	PC2.handle hand/power tools for establishing/ terminating electrical connections as per requirement				
	PC3.use appropriate tools to trace out short circuits/faults and leakages in electrical wiring				
	PC4.use measuring instruments to measure size and dimension of wires, conduits as per electrical installation or maintenance work requirement				
	PC5. use hand/ power tools to cut, and bend wire and conduit as per electrical installation or maintenance work requirement				
	PC6.use appropriate tools to splice wires by stripping insulation from terminal leads and twisting wires together				
	PC7.use appropriate hand/power tools to thread conduit ends, connect couplings, and fabricate and secure conduit support brackets				
	PC8.use appropriate electrical measuring devices like ammeter, voltmeter, meggers etc.to examine electrical units for power interruptions/ continuity				
	PC9.use electrical devices such as starters, circuit breakers, relays as per equipment/ wiring installation rating or current rating				
	PC10.use diagnostic devices like multi-meter, tong tester, earth tester or similar devices to install, repair power connections				
	PC11.perform maintenance and upkeep of relevant tools and devices after use				

	<b>Total Marks</b>	<b>30</b>	<b>70</b>	<b>-</b>	<b>-</b>
<b>Install temporary lighting arrangement at construction sites</b>	PC1. check cable, conduits, lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories as per manufacturers guidelines and specification	30	70	-	-
	PC2. lay cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions				
	PC3. select the type and wattage of lights considering illumination requirement at worksite and install them at secured positions				
	PC4. fix lights and its accessories, brackets, bulkheads with screws and bolts or by other standard means, pull wires through conduit leading to connection boxes, temporary panels/ distribution boards or other temporary electrical terminals				
	PC5. extend/ join LV electrical cable using straight through joints, splicing them together and secure joints by applying PVC insulation tapes, caps or by other safe method as and when necessary				
	PC6. carry out termination of LV cables selecting the right method as per standard practice				
	PC7. work safely as per electrical safety guidelines provided by manufacturer, standard safety practice or organizational safety norms while establishing or disconnecting live electrical connections				
	PC8. upkeep of all relevant key electrical tools and fixtures				
	PC9. tag embedded, exposed electrical lines and other key equipment appropriately				
	PC10. shift light at various locations during construction activity as per requirement				
	PC11. repair and replace light arrangements as per instruction or requirement				

	PC12. replace burned out bulbs, light units and ballast in light fixtures as needed				
	PC13. carry out relevant tests to trace out power interruptions/continuity at lighting arrangements				
	PC14. replace damaged cable, other relevant parts as and when necessary				
	PC15. replace faulty circuit breakers, fuses, switches, electrical and electronic components and wire as per requirement				
	PC16. perform preventive maintenance on diesel generators at site provided for temporary lighting (if any) at scheduled intervals as per direction of concerned authority				
	<b>Total Marks</b>	<b>30</b>	<b>70</b>	-	-
<b>Install temporary lighting arrangement at construction sites</b>	PC1. check cable, conduits, lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories as per manufacturers guidelines and specification	30	70	-	-
	PC2. lay cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions				
	PC3. select the type and wattage of lights considering illumination requirement at worksite and install them at secured positions				
	PC4. fix lights and its accessories, brackets, bulkheads with screws and bolts or by other standard means, pull wires through conduit leading to connection boxes, temporary panels/ distribution boards or other temporary electrical terminals				
	PC5. extend/ join LV electrical cable using straight through joints, splicing them together and secure joints by applying PVC insulation tapes, caps or by other safe method as and when necessary				
	PC6. carry out termination of LV cables selecting the right method as per standard practice				
	PC7. work safely as per electrical safety guidelines provided by manufacturer, standard safety practice or organizational safety				

	norms while establishing or disconnecting live electrical connections				
	PC8. upkeep of all relevant key electrical tools and fixtures				
	PC9. tag embedded, exposed electrical lines and other key equipment appropriately				
	PC10. shift light at various locations during construction activity as per requirement				
	PC11. repair and replace light arrangements as per instruction or requirement				
	PC12. replace burned out bulbs, light units and ballast in light fixtures as needed				
	PC13. carry out relevant tests to trace out power interruptions/continuity at lighting arrangements				
	PC14. replace damaged cable, other relevant parts as and when necessary				
	PC15. replace faulty circuit breakers, fuses, switches, electrical and electronic components and wire as per requirement				
	PC16. perform preventive maintenance on diesel generators at site provided for temporary lighting (if any) at scheduled intervals as per direction of concerned authority				
	<b>Total Marks</b>	<b>30</b>	<b>70</b>	-	-
<b>Assist in LV (low voltage) electrical wiring at permanent structures</b>	PC1. select house wiring components (such as wires, flexible and rigid conduits, PVC raceways, wooden battens, clamps etc.) according to their specification / size	30	70	-	-
	PC2. read and interpret single phase LV wiring diagram				
	PC3. carry out necessary linear measurement to cut, bend, join conduits and cables and use them as per requirement or instruction				
	PC4. lay conduit through RCC structures (slabs, beams, walls) or through chased wall (brick wall) surface as per instruction				
	PC5. lock conduit pipe in its location by means of clamp or other standard means as per instruction				
	PC6. pull, push wires through conduits in order to expose them at desired locations as per requirement				

	PC7. perform drilling and cutting using appropriate tools as per requirement				
	PC8. handle, shift and assist in fixing electrical fixtures and fittings as per instructions				
	PC9. carry out termination of cables safely as per instruction				
	PC10. test electrical circuit during and post wiring activity using appropriate tools as per direction of electrician				
	PC11. assist in carrying out electrical earthing work by installing earthing components as per instructions				
	<b>Total Marks</b>	<b>30</b>	<b>70</b>	-	-
<b>Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site</b>	PC1. read relevant SLDs (Single Line Diagrams), instructions, safety guidelines, manufacturers specifications prior to assembling temporary panel/ distribution boards				
	PC2. install required fixtures like power sockets, switches, wires, MCBs (Miniature Circuit Breakers) of appropriate specification as per circuit load requirement				
	PC3. ensure tightness and safe working condition of wires, fixtures prior to the connection of the assembly with power source				
	PC4. connect DB (Distribution Board) to main power cable and perform standard tests to ensure its safe and desired working				
	PC5. place and secure the distribution board against external damaging agents like water, fire etc.	30	70	-	-
	PC6. carry out proper termination of cables as per standard practice while connecting to the sockets of the panel				
	PC7. carry out earthing of the panels as per standard procedure				
	PC8. check and ensure necessary tagging and barrication near the live/ active electrical distribution boards				
	PC9. carry out visual inspection of the live/ active board regularly to ensure safe working condition of all components				
	PC10. ensure that the live connections get discontinued after completion of daily construction works in order to minimize energy wastage and enhance working efficiency of electrical units				

	PC11. respond promptly to failure/ damage or malfunctioning of panel or any of its components				
	PC12. carry out necessary tests in order to determine root cause of failure				
	PC13. notify concerned authorities prior to shut down, deactivation or repair of the electrical unit				
	PC14. replace/ repair faulty components as per SLD, instructions, safety guidelines and manufacturers specifications				
	PC15. document and keep records relevant to maintenance/ repair of panels as per organizational norms				
	PC16. isolate the panel safely and shift to another location as per requirement				
	<b>Total Marks</b>				
<b>Work effectively in a team to deliver desired results at the workplace</b>	PC1. pass on work related information/ requirement clearly to the team members	30	70	-	-
	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				
	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				
	PC9. maintain cultural inclusivity at workplace				
	PC10. maintain disability friendly work practices				
	PC11. follow gender neutral practices at workplace				
	PC12. address discriminatory and offensive behaviour in a professional manner as per organizational policy				

	Total Marks	30	70	-	-
<b>Plan and organize work to meet expected outcomes</b>	PC1. identify the targets and timelines set by superiors	30	70	-	-
	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				
	PC6. arrange the required manpower prior to commencement of work				
	PC7. organize the required materials, tools and tackles required for the task				
	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				

	Total Marks	30	70	-	-
<b>Work according to personal health, safety and environment protocols at construction site</b>	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	<b>30</b>	<b>70</b>		
	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				
	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				
	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				
	PC13. collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature				
	PC14. apply ergonomic principles wherever required				

	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				
	<b>Total Marks</b>	<b>30</b>	<b>70</b>	<b>-</b>	<b>-</b>
<b>Employability Skills (30 Hours)</b>	PC1. understand the significance of employability skills in meeting the job requirements	20	30	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices				
	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.				
	PC4. speak with others using some basic English phrases or sentences				
	PC5. follow good manners while communicating with others				
	PC6. work with others in a team				
	PC7. communicate and behave appropriately with all genders and PwD				
	PC8. report any issues related to sexual harassment				
	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				
	PC12. operate digital devices and use its features and applications securely and safely				
	PC13. use internet and social media platforms securely and safely				
	PC14. identify and assess opportunities for potential business				

	PC15. identify sources for arranging money and associated financial and legal challenges				
	PC16. identify different types of customers				
	PC17. identify customer needs and address them appropriately				
	PC18. follow appropriate hygiene and grooming standards				
	PC19. create a basic biodata				
	PC20. search for suitable jobs and apply				
	PC21. identify and register apprenticeship opportunities as per requirement				
	<b>Total Marks</b>	<b>20</b>	<b>30</b>	-	-
<b>Grand Total</b>		<b>230</b>	<b>520</b>	-	-

### 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 **Assistant Electrician** 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 **Assistant Electrician** 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

## Acronym

Acronym	Description
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	Constriction 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

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

## Glossary

<b>Term</b>	<b>Description</b>
<b>National Occupational Standards (NOS)</b>	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.
<b>Qualification</b>	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
<b>Qualification File</b>	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.
<b>Sector</b>	A grouping of professional activities on the basis of their main economic function, product, service or technology.
<b>Long Term Training</b>	Long-term skilling means any vocational training program undertaken for a year and above. <a href="https://ncvet.gov.in/sites/default/files/NCVET.pdf">https://ncvet.gov.in/sites/default/files/NCVET.pdf</a>

<b>Declarative Knowledge</b>	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.
<b>Key Learning Outcome</b>	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).
<b>OJT (M)</b>	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
<b>OJT (R)</b>	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
<b>Procedural Knowledge</b>	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.
<b>Training Outcome</b>	Training outcome is a statement of what a learner will know, understand and be able to do it upon the completion of the training.
<b>Terminal Outcome</b>	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

