QUALIFICATION FILE

Foreman-Electrical Works (Construction)

☒ 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: 5

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

Table of Contents

Section 1: Basic Details

1.	**Qualification Name**	**Foreman-Electrical Works (Construction)**	
2.	**Sector/s**	**Construction**	
3.	**Type of Qualification:** ☐ **New** ☒ **Revised** ☐ **Has Electives/Options** ☐ **OEM**	**NQR Code & version of existing/previous qualification:** (QG-4.5-CO-03382-2024-V1.1-CSDCI, v 3.0*)*	**Qualification Name of existing/previous version:** Foreman-Electrician Works (Construction)
4.	**a. OEM Name** **b. Qualification Name** (*Wherever applicable)*	NA	
5.	**National Qualification Register (NQR) Code &Version** (*Will be issued after NSQC approval)*	QG-05-CO-03953-2025-V2-CSDCI & v 4.0	**6. NCrF/NSQF Level:** *5*
7.	**Award (Certificate/Diploma/Advanced Diploma/ Any Other** *(Wherever applicable specify multiple entry/exits also & provide details in annexure)*	**Certificate**	
8.	**Brief Description of the Qualification**	A Foreman - Electrician Works (Construction) is responsible for conducting installation, repair, and maintenance of critical electrical connections/ equipment or machinery while planning and utilizing resources to meet electrical work requirements at construction sites or permanent structures.	
9.	**Eligibility Criteria for Entry for Student/Trainee/Learner/Employee**	**a. Entry Qualification & Relevant Experience:**	

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1.	Completed 2nd year of 3-year/ 4-years UG (B.E. / B.Tech in Electrical Engineering)	

2.	Completed 2nd year of diploma after 12th (in Electrical Engineering)	
3.	Completed 3-Year diploma after 10th (in Electrical Engineering)	1-year relevant experience
4.	Completed 1st year of 3-year / 4- year UG (in Electrical Engineering)	1-year relevant experience
5.	12th Grade Pass	2-year relevant experience
6.	10th Grade pass	4-year relevant experience
7.	Previous relevant Qualification of NSQF Level 4 (Construction Electrician – LV)	3-year relevant experience

b. Min. Job Entry Age: As Per Govt. Norms

10.	**Credits Assigned to this Qualification, Subject to Assessment** *(as per National Credit Framework (NCrF))*	19	**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**

Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)
Classroom (offline)	210	0	360	0	570
Online					

(Refer Blended Learning Annexure for details)

14.	**Aligned to NCO/ISCO Code/s** *(if no code is available mention the same)*	NCO-2015/7411.0301

15.	**Progression path after attaining the qualification** *(Please show Professional and Academic progression)*	*Supervisor-Electrical Work*	
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/N9002	
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.	**On-File Approval Date by NSQC: 07.05.2025**	**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.	Monitor regular electrical works (installation, maintenance and repairing) at a construction site	CON/N0611 & V 4.0	Core	5	3	25	-	65	-	90	30	70	-	-	100	20
2.	Establish electrical connections during erection of plant and heavy construction machineries	CON/N0612 & V 4.0	Core	5	4	35	-	85	-	120	30	70	-	-	100	15
3.	Conduct permanent wiring and maintenance work in buildings	CON/N0613 & V 4.0	Core	5	6	50	-	130	-	180	30	70	-	-	100	15

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)*
4.	Manage workplace for safe and healthy work environment	CON/N9002 & V 4.0	Core	5	1	10	-	20	-	30	30	70	-	-	100	10
5.	Plan, arrange and manage resources for execution of relevant work	CON/N7001 & V 4.0	Non-Core	5	1	10	-	20	-	30	30	70	-	-	100	10
6.	Work effectively in a team to deliver desired results at the workplace	CON/N8001 & V 3.0	Non-Core	4	1	10	-	20	-	30	30	70	-	-	100	10
7.	Supervise, monitor and evaluate performance of subordinates at workplace	CON/N8003 & V 4.0	Non-Core	5.5	1	10	-	20	-	30	30	70	-	-	100	10
8.	Employability Skills (60 Hours)	DGT/VSQ/N0102 & V 1.0	Non-Core	4	2	60	-	-	-	60	20	30	-	-	50	10
Duration (in Hours) / Total Marks					**19**	**210**	**-**	**360**	**-**	**570**	**230**	**520**	**-**	**-**	**750**	**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) / Total Marks					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) / Total Marks			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	5	Site Execution (Electrical Work)	1	Construction Electrical Work
OR					
Diploma	Electrical Engineering	7	Site Execution (Electrical Work)	1	Construction Electrical Work
OR					
ITI	Relevant Trade	8	Site Execution (Electrical Work)	1	Construction Electrical Work
OR					
Graduation	in any Stream	8	Site Execution (Electrical Work)	1	Construction Electrical Work
OR					

		Ex-Army Graduate | in any Stream | 8 | 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)*	See nested table below
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**	As Applicable

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	Foreman Electrical Works (Construction)	2	Site Execution (Electrical Work)	5	Construction Electrical Work

Section 4: Assessment Related

<table>
<tr><td>1.</td><td>Assessor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</td><td>
<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>6</td><td>Construction Electrical Work</td></tr>
<tr><td colspan="4">OR</td></tr>
<tr><td>Diploma</td><td>Electrical Engineering</td><td>8</td><td>Construction Electrical Work</td></tr>
<tr><td colspan="4">OR</td></tr>
<tr><td>ITI</td><td>Relevant Trade</td><td>10</td><td>Construction Electrical Work</td></tr>
</table>
</td></tr>
<tr><td>2.</td><td>Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</td><td>
<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>
</td></tr>
<tr><td>3.</td><td>Lead Assessor’s/Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</td><td>
<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>
</td></tr>
<tr><td>4.</td><td>Assessment Mode (Specify the assessment mode)</td><td>Offline</td></tr>
</table>

5.	**Tools and Equipment Required for Assessment**	☒ Same as for training ☐ Yes ☐ No *(details to be provided in Annexure-if it is different for Assessment)*

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	**Latest Skill Gap Study (not older than 2 years) (Yes/No):** Yes
2.	**Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):** Yes
3.	**Government /Industry initiatives/ requirement (Yes/No):** Yes
4.	**Number of Industry validation provided:** 28
5.	**Estimated nos. of persons to be trained and employed:** 6,000 and 4,200
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 *(Mandatory)*	Yes
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	Yes
3.	**Annexure:** Detailed Assessment Criteria *(Mandatory)*	Yes
4.	**Annexure:** Assessment Strategy *(Mandatory)*	Yes
5.	**Annexure:** Blended Learning *(Mandatory, in case selected Mode of delivery is "Blended Learning")*	No
6.	**Annexure:** Multiple Entry-Exit Details *(Mandatory, in case qualification has multiple Entry-Exit)*	No
7.	**Annexure:** Acronym and Glossary *(Optional)*	Yes
8.	**Supporting Document:** Model Curriculum *(Mandatory – Public view)*	Yes
9.	**Supporting Document:** Career Progression *(Mandatory - Public view)*	Yes
10.	**Supporting Document:** Occupational Map *(Mandatory)*	Yes
11.	**Supporting Document:** Assessment SOP *(Mandatory)*	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 monitoring regular electrical works at a construction site • Process of establishing electrical connections during erection of plant and heavy construction machineries • Process of conducting permanent wiring and maintenance work in buildings • 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 supervising, monitoring and evaluating performance of subordinates at workplace • Process of managing workplace for safe and health work environment	As detailed, the entire process followed by a Foreman-Electrician Works is to monitor regular electrical works at a construction site; establish electrical connections during erection of plant and heavy construction machineries; conduct permanent wiring and maintenance work in buildings; work effectively in a team to deliver desired results at the workplace; plan and organize work to meet expected outcomes; supervise, monitor and evaluate the performance of subordinates at the workplace; and manage the workplace for a safe and healthy work environment. As the work is routine and repeated multiple times, the work becomes predictable. As the Foreman-Electrician Works 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.	5
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Know the standard practices for monitoring regular electrical works • Know guidelines provided in the Indian Standard code of practices applicable for establishing and inspecting electrical wiring works • Know the statutory guidelines provided by ISI for LV wiring operations	The knowledge required for a Foreman-Electrician Works is factual, as it is specific and limited to the knowledge of the standard practices for monitoring regular electrical works; guidelines provided in Indian Standard code of practices applicable for establishing and inspecting electrical wiring works; statutory guidelines provided by ISI for LV wiring operations; the principles of electrical theory as applied to electrical circuits and wiring systems; understanding drawings and SLDs related to schematics for single and three-	5

	• Know the principles of electrical theory as applied to electrical circuits and wiring systems • Understand drawings and SLDs related to schematics for single and three phase wiring system • Know how to estimate the required material quantity from electrical drawings • Know the sequence of electrical works to be carried out depending upon requirement of construction works • Know the working principle, components, troubleshooting and repair of complex electrical circuits, electrical panels, transformers, generators • Understand calibration schedule and calibration of equipment and authorization procedures as per the organization policy	phase wiring systems; estimating the required material quantity from electrical drawings; the sequence of electrical works to be carried out depending upon the requirement of construction works; the working principle, components, troubleshooting, and repair of complex electrical circuits, electrical panels, transformers, generators; understanding calibration schedule and calibration of equipment and authorization procedures as per the organization policy. Therefore, their knowledge is applicable to their field of work only.	
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Inspect completed LV electrical arrangements to ensure its compliance with specifications, and applicable statutory and HSE requirements • Conduct periodical checks/ tests of insulation, joints, termination of wires and cables, safety of isolation etc. to ensure safe working of wiring systems • Conduct installation, electrical maintenance and repair of equipment like electrical distribution panels and its	As indicated the skill set is required to inspect completed LV electrical arrangements to ensure its compliance with specifications, and applicable statutory and HSE requirements; conduct periodical checks/ tests of insulation, joints, termination of wires and cables, safety of isolation etc. to ensure safe working of wiring systems; conduct installation, electrical maintenance and repair of equipment like electrical distribution panels and its accessories, common construction equipment like bar cutting/bending machine, different types of pumps	5

	accessories, common construction equipment like bar cutting/bending machine, different types of pumps used in construction sites, transformers and tower cranes etc. ● Estimate the material requirements from electrical drawings/ diagrams as per standard practices ● Inspect electrical isolation at the main and secondary power source as per safe and standard procedures ● Inspect electrical panels and transformers to ensure conformance to manufacturer's specification, compatibility of devices, power ratings of devices etc. ● Erect and activate electrical panels for power source as per requirement ● Install earthing arrangement and protective devices at appropriate locations as per manufacturer's guidelines ● Prepare "as- built" drawing of temporary and permanent embedded electrical lines/ connections and document the same ● Monitor wall chasing work prior to laying conduit ● Inspect electrical isolation at the main and secondary power source as per standard procedures	used in construction sites, transformers and tower cranes etc.; estimate the material requirements from electrical drawings/ diagrams as per standard practices; inspect electrical isolation at the main and secondary power source as per safe and standard procedures; inspect electrical panels and transformers to ensure conformance to manufacturer's specification, compatibility of devices, power ratings of devices etc.; erect and activate electrical panels for power source as per requirement; install earthing arrangement and protective devices at appropriate locations as per manufacturer's guidelines; prepare "as- built" drawing of temporary and permanent embedded electrical lines/ connections and document the same; monitor wall chasing work prior to laying conduit; inspect electrical isolation at the main and secondary power source as per standard procedures; and conduct tests/ inspections to ensure safe working of electrical circuits or to determine fault in the circuit.	

	• Conduct tests/ inspections to ensure safe working of electrical circuits or to determine fault in the circuit		
Broad Learning Outcomes/Core Skill	• Carry out the process of monitoring regular electrical works (installation, maintenance and repair) at a construction site. • Carry out the process of establishing electrical connections during erection of plant and heavy construction machineries. • Carry out ways to conduct permanent wiring and maintenance work in buildings.	The job holder is expected to carry out the process of monitoring regular electrical works (installation, maintenance and repairing) at a construction site; the process of establishing electrical connections during erection of plant and heavy construction machineries; conduct permanent wiring and maintenance work in buildings.	5
Responsibility	The individual in this job role will be responsible for the below-mentioned activities: • Monitor and check wiring / connections for LV works at a construction site. • Conduct installation/ maintenance of construction equipment and machineries • Organize resources prior to electrification of heavy machineries • Conduct electrification of heavy plant and machineries at construction site • Calculate material requirement from drawing specifications following standard practices	A Foreman-Electrician Works(Construction) is responsible for conducting installation, repair, and maintenance of critical electrical connections/ equipment or machinery while planning and utilizing resources to meet electrical work requirements at construction sites or permanent structures.	5

	• Install and maintain wiring, electrical fixtures, and equipment as per requirement /specification • 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 • Monitor and evaluate subordinates performance as per quality standards and timelines • Practice and promote gender inclusive behavior and leadership • Ensure effective implementation of health, safety and environment policies and procedures • Identify and respond to risks / fire and emergencies associated with the work practices and workplace • Ensure sanitization and infection control guidelines are followed at construction site		

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30 Candidates

S. No.	Tool / Equipment Name	Unit	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	10
8	Jump suit	Nos	10
9	Leather Hand Gloves	Nos	30
10	Sand buckets	Nos	5
11	Fire extinguishers	Nos	2
12	Reflective jackets	Nos	30
13	Dust 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	15
20	Helmet	Nos	30
21	Miniature Circuit Breaker (MCB)	Nos	6
22	Earth Leakage Circuit Breaker (ELCB)	Nos	3
23	Mains breaker switch	Nos	6
24	Simple switchboard	Nos	6
25	wall socket	Nos	6
26	Halogen lamp	Nos	3

27	Tungsten bulb/ CFL/FSL bulb	Nos	15
28	Electrical socket (set)	Nos	5
29	Chasing machine	Nos	1
30	Drilling machine	Nos	6
31	Cutting machine	Nos	1
32	Marking tools	Nos	10
33	Spirit level- 1ft	Nos	10
34	Measuring tape- 5m	Nos	10
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	10
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	3
61	IS 732, Code of Practice for Electrical Wiring Installations	Nos	15

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

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@lntecc.com	
2	National Academy of Construction	M Indra Kiran	Director	Near SS Convention Center, Labbipet, Vijayawada, Andhra Pradesh, PIN: 520010	984947 0249	nacaptrainings@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@iitg.ac.in	
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@aituniversal.com	
16	Asirbadh Projects and Infrastructure Limited	Kunwar Jee	GM (Projects)	A.G. Office Road, Doanda, Ranchi-	7858801901	ahplmd@yahoo.com	

				834002, Jharkhand.			
17	Donge Project Management Consultants Pvt. Ltd.	Balkrishna Kulkarni	President	401, Imperial Heights, Akshar Chowk, OP Road, Vadodara	9819657656	balkrishna.kulkarni@dongrepmc.com	
18	Ephicacy Lifescience Analytics	Rahul Kumar Kaushik	Sr. Manager	2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka 560076	8859885973	rahul.Kaushik@ephicacy.com	
19	Freelance Architect (Individual Consultant)	Garvit Sharma	Architect	A-101 Radha Krishna Lane, Kaushambi, Ghaziabad, U.P	9971967901	grsharma97@gmail.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@knowhowschools.com	
22	L& T Skill Trainers Academy	DK Sharma	Principal - CSTI	Larsen & Toubro Ltd. Near Custom House, Versova Creek Madh Jetty, Madh,	7660986699	deepaks@lntecc.com	

				Mumbai, 400061			
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	1,500	1,050	300	210	Subject to the requirement of the Industry	Subject to the requirement of the Industry
2026-27	2,000	1,400	400	280	Subject to the requirement of the Industry	Subject to the requirement of the Industry
2027-28	2,500	1,750	500	350	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 2.0	2022-23	1634	158	148	148	NA	NA	NA	NA	NA	NA	NA	NA
V 2.0	2023-24	3687	2280	2026	2000	NA	NA	NA	NA	NA	NA	NA	NA
V 2.0	2024-25	135	824	588	550	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. DDUGKY
2. NULM
3. 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
Monitor regular electrical works (installation, maintenance and repairing) at a construction site	*Monitor and check wiring / connections for LV works at a construction site*	**15**	**35**		
	PC1. ensure the periodic preventive maintenance of electrical wiring, cables, equipment and fixtures deployed at construction site, under safe conditions				
	PC2. ensure materials, fixtures and devices used in repairing/ maintenance works are ISI certified				
	PC3. inspect completed LV electrical arrangements to ensure its compliance with specifications, and applicable statutory and HSE requirements				
	PC4. ensure the safe working of lighting arrangements and its components				
	PC5. conduct periodical checks/ tests of insulation, joints, termination of wires and cables, safety of isolation etc. to ensure safe working of wiring systems				
	PC6. diagnose malfunctioning of wiring systems, circuits, temporary panels and its components, using appropriate measuring equipment and hand tools				
	PC7. perform troubleshooting and take corrective actions for emergency repairs in case of short circuit or malfunction in wiring systems, temporary electrical panels or lighting arrangements				
	Conduct installation/maintenance of construction equipment and machineries				

	PC8. conduct scheduled maintenance of power and diagnostic tools as per manufacturer's guidelines, to ensure their proper functioning				
	PC9. develop hand sketches relevant to electrical circuit diagrams using standard wiring symbols as per work requirement				
	PC10. coordinate the electrical works by providing instructions/ directions for their timely completion as per specification, guidelines and safety norms				
	PC11. conduct periodic/scheduled calibrations of testing equipment to ensure their serviceability				
	PC12. conduct installation, electrical maintenance and repair of equipment like electrical distribution panels and its accessories, common construction equipment like bar cutting/bending machine, different types of pumps used in construction sites, transformers and tower cranes etc.				
	PC13. ensure safe isolation and proper termination of cables at power source and equipment				
	PC14. prepare schedule of maintenance for common equipment and machineries such as motor, bar cutting/ bending machines, vibrators, tower cranes etc.	**15**	**35**		
	PC15. conduct periodic checks for adverse situation like vicinity of water, fire prior, during and after establishing any electrical system				
	PC16. ensure proper earthing of electrical circuits as per relevant specifications and manufacturer's guidelines				
	PC17. conduct trial run and obtain clearance from respective authority relevant to electrical works prior to working of the equipment				
	PC18. ensure upkeep of valuable electrical fixtures and perform checks at electrical stores to ensure their safe condition				
	PC19. prepare data sheet, report and document readings as per applicability based on organizational procedures				
	PC20. ensure electrical safety of workers, equipment, materials and fixtures by adopting standard safe working procedures at workplace as per organizational norms				
	Total Marks	**30**	**70**		

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Establish electrical connections during erection of plant and heavy construction machineries	*Organize resources prior to electrification of heavy machineries*	**10**	**25**		
	PC1. ascertain electrical requirement of the machinery to be installed by interpreting manufacturer's guidelines				
	PC2. estimate the material requirements from electrical drawings/ diagrams as per standard practices, and pass on the same to senior authority after validating with store				
	PC3. perform visual inspection of available materials to ascertain their specification and physical condition				
	PC4. coordinate with superiors for allocation of desired manpower				
	Conduct electrification of heavy plant and machineries at construction site	**20**	**45**		
	PC5. provide inputs in planning and preparing work schedules for erection of heavy machineries				
	PC6. ensure completion of preparatory works and availability of safety devices at workplace, prior to installation works				
	PC7. inspect electrical isolation at the main and secondary power source as per safe and standard procedures				
	PC8. inspect electrical panels and transformers to ensure conformance to manufacturer's specification, compatibility of devices, power ratings of devices etc. as per electrical safety norms				
	PC9. erect and activate electrical panels for power source as per requirement				
	PC10. connect machinery and power source as per requirement				
	PC11. install earthing arrangement and protective devices at appropriate locations as per manufacturer's guidelines				
	PC12. ensure safe joining (straight through joint) and termination of cables as per standard practices				
	PC13. conduct trail run and electrical tests using appropriate				

	measuring and diagnostic devices to ensure safe working of plant and machineries specifications and manufacturer's guidelines				
	PC14. check panels, transformers, machineries for distribution system failure				
	PC15. conduct preventive maintenance of electrical panels and electrical machinery parts as per requirement				
	PC16. ensure electrical safety of workers, equipment, materials and fixtures by adopting standard safe working procedures				
	PC17. prepare field reports and hand sketches for documentation of related works as per requirement				
	Total Marks	**30**	**70**		

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Conduct permanent wiring and maintenance work in buildings	*Calculate material requirement from drawing specifications following standard practices*	**15**	**35**		
	PC1. ascertain electrical requirement for the work based on electrical drawings and guidelines				
	PC2. estimate the materials required for electrical works as per standard practice/drawings / diagrams				
	PC3. determine the electrical equipment and fixtures required for electrical circuits/systems from drawings as per on power rating				
	PC4. prepare "as- built" drawing of temporary and permanent embedded electrical lines/ connections and document the same				
	Install and maintain wiring, electrical fixtures, and equipment as per requirement /specification	**15**	**35**		
	PC5. monitor wall chasing work prior to laying conduit ,and ensure it is per standard procedures				
	PC6. lay conduit for RCC structures and ensure it's specification are as per requirement				
	PC7. conduct cable laying through conduit and ensure right specification of cables are being used as per electrical voltage/ load requirement				
	PC8. conduct concealed and exposed electrical wiring work as per standard methods				
	PC9. inspect electrical isolation at the main and secondary power source as per standard procedures				
	PC10. fix complex electrical fixtures and installs fire alarm systems as per requirement				
	PC11. conduct the earthing of installed electrical circuit using standard earthing components, as per standard method				
	PC12. conduct tests/ inspections to ensure safe working of electrical circuits or to determine fault in the circuit				

	PC13. conduct maintenance work as per requirement adhering to general electrical guidelines/specification ensuring work safety				
	PC14. change parts, fixture, wirings as per requirement				
	PC15. carry out basic maintenance of household equipment like water pump, motor etc				
	Total Marks	**30**	**70**		

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Manage workplace for safe and healthy work environment	*Ensure effective implementation of health, safety and environment policies and procedures*	15	40		
	PC1. implement safe handling and stacking methods at workplace /store				
	PC2. ensure the adequate availability and placing of safety and protection installations at site				
	PC3. ensure that safe access ways are available at work place for movement of workers and materials				
	PC4. ensure the safe use of tools and tackles by teammates as per work requirements				
	PC5. ensure ergonomic principles are adopted by the teammates while lifting and shifting of construction materials, tools and equipment				
	PC6. ensure appropriate use of following Personal Protective Equipment (PPE) as per work requirement of head protection, ear protection, fall protection, foot protection, face and eye protection, hand and body protection, respiratory protection				
	PC7. maintain entry and exit pathways from confined spaces, excavated pits and other location as per safety parameters/instructions				
	PC8. ensure proper housekeeping at workplace				
	PC9. ensure that subordinates adhere to health and safety plans				
	Identify and respond to risks / fire and emergencies associated with the work practices and workplace	10	20		
	PC10. identify any hazard at workplace and report/notify the same to appropriate authorities.				
	PC11. follow procedures for accident recording and reporting as per organizational and statuary requirements				
	PC12. ensure effective adherence to emergency response procedures / protocols				
	PC13. select and operate different types of fire extinguishers corresponding to types of fires as per EHS guideline				
	PC14. obtain 'height pass' clearance as per EHS guideline				

	PC15. implement control measures to reduce risks, meeting legislative requirements within the scope of own role and expertise, as per organizational policies				
	Ensure sanitization and infection control guidelines are followed at construction site	5	10		
	PC16. promote awareness about latest hygiene and sanitation regulations				
	PC17. ensure disinfection procedure related to material, tools and supplies are followed properly				
	PC18. respond to infection prevention and control and its non-compliance, within scope of own role or report to required personnel				
	NOS Total	**30**	**70**		

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Plan, arrange and manage resources for execution of relevant work	*Plan and prepare for work*	**12**	**24**		
	PC1. identify the targets and timelines for the work 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				
	Arrange and manage manpower	**12**	**24**		
	PC6. determine quantum and nature of work under assigned activity				
	PC7. calculate requirement of manpower for assigned activities				
	PC8. submit manpower requirement to superiors				
	PC9. allocate and extract work as per plan				
	PC10. provide clear instructions to workmen for execution of work				
	PC11. ensure optimum utilization of manpower resources				
	PC12. record the daily labor attendance and their daily productivity				
	Arrange allocate and manage tools, material and equipment for completion of work, as per the plan	**6**	**22**		
	PC13. estimate requirement for material, components, fixtures, equipment, tools and accessories				
	PC14. submit material, equipment and tool requirement to superiors				

	PC15. allocate material, equipment and tools to workmen and extract the work as per plan				
	PC16. provide clear instructions for optimium use of resources				
	PC17. ensure the work processes adopted are in line with the specified standards and instructions				
	PC18. complete the work with the allocated resources within specified time				
	NOS Total	**30**	**70**		

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Work effectively in a team to deliver desired results at the workplace	*Interact and communicate in an effective manner*	**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				
	Support co-workers to execute the project requirements	**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				
	Practice inclusion	**6**	**14**		
	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				
	NOS Total	**30**	**70**		

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Supervise, monitor and evaluate performance of subordinates at workplace	*Monitor and evaluate sub-ordinates performance as per quality standards and timelines*	**20**	**40**		
	PC1. fix expected targets for the respective gang as per site requirements and allocate work to subordinates				
	PC2. establish expected performance standards and expectations for the respective gang of workers to meet the desired outcomes				
	PC3. inspect assigned work to the respected gang of workers through progressive checking				
	PC4. observe and verify the work activities performed by the subordinates at the construction site				
	PC5. monitor overall performance of subordinates on the designed measures to ensure quality requirements set by the concerned authority				
	PC6. ensure adherence to the organizational policies and procedures for all relevant construction activities by the workmen subordinations				
	Practice and promote gender inclusive behavior and leadership	**10**	**30**		
	PC7. promote a safe, supportive, inclusive and gender sensitive environment at workplace.				
	PC8. manage and facilitate capacity building to enable inclusion of all genders				
	PC9. take prompt corrective action in case of inappropriate behavior at workplace				
	NOS Total	**30**	**70**		

NOS / Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Employability Skills (60 Hours)	*Introduction to Employability Skills*	**1**	**1**		
	PC1. understand the significance of employability skills in meeting the job requirements				
	Constitutional values – Citizenship	**1**	**1**		
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices				
	Becoming a Professional in the 21st Century	**1**	**3**		
	PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.				
	Basic English Skills	**2**	**3**		
	PC4. speak with others using some basic English phrases or sentences				
	Communication Skills	**1**	**1**		
	PC5. follow good manners while communicating with others				
	PC6. work with others in a team				
	Diversity & Inclusion	**1**	**1**		
	PC7. communicate and behave appropriately with all genders and PwD				
	PC8. report any issues related to sexual harassment				
	Financial and Legal Literacy	**3**	**4**		
	PC9. use various financial products and services safely and securely				
	PC10. calculate income, expenses, savings etc.				
	PC11. approach the concerned authorities for any exploitation as per legal rights and laws				
	Essential Digital Skills	**4**	**6**		

	PC12. operate digital devices and use its features and applications securely and safely				
	PC13. use internet and social media platforms securely and safely				
	Entrepreneurship	**3**	**5**		
	PC14. identify and assess opportunities for potential business				
	PC15. identify sources for arranging money and associated financial and legal challenges				
	Customer Service	**2**	**2**		
	PC16. identify different types of customers				
	PC17. identify customer needs and address them appropriately				
	PC18. follow appropriate hygiene and grooming standards				
	Getting ready for apprenticeship & Jobs	**1**	**3**		
	PC19. create a basic biodata				
	PC20. search for suitable jobs and apply				
	PC21. identify and register apprenticeship opportunities as per requirement				
	Total Marks	**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 **Foreman Electrical Works (Construction)** 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 **Foreman Electrical Works (Construction)** 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 leaning 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
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