QUALIFICATION FILE

Digital Connectivity Infrastructure (DCI) Evaluator

☒ 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: 6

NSQC Approved

Submitted By:

The Institution of Civil Engineers Society

Address: 301-303, Suncity Trade Tower, Sector-21, Gurugram, Haryana-122016

Submitting Body Contact Details:

Name: Maya Thakur

Position in the Organization: Chief Executive Officer (CEO)

Address: Same as above

Tel number(s): +91 9717900050

E-mail address: ceo@iceskills.in

Table of Contents

NSQC Approved

Section 1: Basic Details

1.	**Qualification Name**	Digital Connectivity Infrastructure (DCI) Evaluator	
2.	**Sector/s**	Telecom	
3.	**Type of Qualification:** ☒ **New** ☐ **Revised** ☐ **Has Electives/Options** ☐ **OEM**	**NQR Code & version of existing/previous qualification:** NA *(change to previous, once approved)*	**Qualification Name of existing/previous version:** NA
4.	**a. OEM Name** **b. Qualification Name** (*Wherever applicable)*	NA	
5.	**National Qualification Register (NQR) Code & Version** (*Will be issued after NSQC approval)*	QG-06-TL-046482025-V1-ICES & Version 1.0	6. **NCrF/NSQFLevel:** *6*
7.	**Award (Certificate/Diploma/Advance Diploma/Any Other** *(Wherever applicable specify multiple entry/exits also & provide details in annexure)*	Certificate	
8.	**Brief Description of the Qualification**	A Digital Connectivity Infrastructure (DCI) Evaluator assesses and certifies the quality, compliance and future-readiness of digital connectivity infrastructure in buildings. They review telecom design, conduct field inspections, verify adherence to regulatory standards like MBBL and NBC and ensure infrastructure supports high-speed connectivity, resilience and scalability for emerging technologies.	
9.	**Eligibility Criteria for Entry for Student / Trainee / Learner / Employee**	**a. Entry Qualification & Relevant Industry Experience:**	

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1.	Completed 4-years UG (B.E./B.Tech in Civil/IT/ECE/Electrical Engineering OR B.Arch)	1.5-years of Relevant Industry Experience
2.	Completed 3-year diploma after 10th (Diploma in Civil/IT/ECE/Electrical Engineering/Architecture)	4 years of Relevant Industry Experience
3.	Previous relevant Qualification of NSQF Level 5.5 (as ***Digital Connectivity Infrastructure (DCI) Designer***)	1.5-years of Relevant Industry Experience

NSQC Approved

<table>
<tr><td></td><td></td><td colspan="3"><table><tr><td>4.</td><td>Previous relevant Qualification of NSQF Level 5</td><td>3-years of Relevant Industry Experience</td></tr></table>b. Age: As per Govt. Norms</td></tr>
<tr><td>10.</td><td>Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))</td><td>16</td><td colspan="2">11. Common Cost Norm Category (I/II/III) (wherever applicable): I</td></tr>
<tr><td>12.</td><td>Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)</td><td colspan="3">Not Applicable</td></tr>
<tr><td>13.</td><td>Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</td><td colspan="3">☐ Offline ☐ Online ☒ Blended
<table><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 Duration (Hours)</th></tr><tr><td>Classroom (offline)</td><td>210</td><td>180</td><td>30</td><td></td><td>420</td></tr><tr><td>Online</td><td>60</td><td></td><td></td><td></td><td>60</td></tr></table>(Refer Blended Learning Annexure for details)</td></tr>
<tr><td>14.</td><td>Aligned to NCO/ISCO Code/s (if no code is available mention the same)</td><td colspan="3">NCO-2015/2153.0400</td></tr>
<tr><td>15.</td><td>Progression path after attaining the qualification (Please show Professional and Academic progression)</td><td colspan="3">Digital Connectivity Infrastructure (DCI) Property Manager (NSQF Level:6.5)</td></tr>
<tr><td>16.</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td colspan="3">Hindi</td></tr>
<tr><td>17.</td><td>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</td><td colspan="3">☐ Yes ☒ No URLs of similar Qualifications:</td></tr>
<tr><td>18.</td><td>Is the Job Role Amenable to Persons with Disability</td><td colspan="3">☐ Yes ☒ No
If “Yes”, specify applicable type of Disability:</td></tr>
<tr><td>19.</td><td>How Participation of Women will be Encouraged</td><td colspan="3">To encourage women to participate in Digital Connectivity Infrastructure - Evaluator job role, it is important to provide education, mentorship and networking opportunities, as well as training and</td></tr>
</table>

NSQC Approved

		development programs. Flexible work arrangements and promoting successful women in DCI – Evaluator 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 DCI - Evaluator job role, 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** **(Covered in ICE/TEL/N0311)**	
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:** Maya Thakur **Email:** ceo@iceskills.in **Contact No.:** +91 9717900050 **Website:** www.iceskills.in	
23.	**Final Approval Date by NSQC:** *07-10-2025*	24. **Validity Duration:** 3 Years	25. **Next Review Date:** *07-10-2028*

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.	Perform Evaluation of Framework, Components and Basics of Drone Landing at Digital Infrastructure	ICE/TEL/ N0305, v1.0	Core	6	2.5	44	30	01	00	75	45	45		10	100	15
2.	Conduct Assessments on DCI Compliance and Resilience as per MBBL & NBC	ICE/TEL/ N0306, v1.0	Core	6	3.5	44	48	13	00	105	45	45		10	100	15
3.	Perform Evaluation for Future-Ready Digital Connectivity in Infrastructure, Services and User Experience	ICE/TEL/ N0307, v1.0	Core	6	4	55	49	16	00	120	45	45		10	100	15
4.	Conduct DCI Audit Reporting, Monitoring, feedback and non-compliance management	ICE/TEL/ N0308, v1.0	Core	6	1	15	15	00	00	30	45	45		10	100	15
5.	Perform Reassessment, Renewal and Appeal management in DCI Rating award process	ICE/TEL/ N0309, v1.0	Core	6	2	38	22	00	00	60	45	45		10	100	15
6.	Perform Remedial Risk Assessment and Mitigations Strategies for DCI	ICE/TEL/ N0310, v1.0	Core	6	0.5	8	7	00	00	15	45	45		10	100	10

NSQC Approved

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)*
7.	Perform Workplace Safety during DCI Evaluation	ICE/TEL/ N0311, v1.0	Core	6	0.5	6	9	00	00	15	45	45		10	100	10
8.	Employability Skills (60 Hours)	DGT/VSQ/N 0102, v1.0	Non-Core	4	2	60				60	20	30			50	5
Duration (in Hours) / Total Marks					**16**	**270**	**180**	**30**		**480**	**335**	**345**		**70**	**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
Duration (in Hours) / Total Marks					**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

NSQC approved

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
Duration (in Hours) / Total Marks					**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.)*

NSQC Approved

Section 3: Training Related

<table>
<tr><td rowspan="6">1.</td><td rowspan="6">Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)</td><td>Minimum Educational Qualification</td><td>Specialization</td><td colspan="2">Relevant Industry Experience</td><td colspan="2">Preferable Training Experience</td></tr>
<tr><td></td><td></td><td>Years</td><td>Specialization</td><td>Years</td><td>Specialization</td></tr>
<tr><td>Post Graduation</td><td>Civil/IT/ECE/Electrical Engineering / Architecture</td><td>2</td><td>in domain specific skills</td><td>1</td><td>in relevant field</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Graduation</td><td>Civil/IT/ECE/Electrical Engineering / Architecture</td><td>4</td><td>in domain specific skills</td><td>1</td><td>in relevant field</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Diploma</td><td>Civil/IT/ECE/Electrical Engineering / Architecture</td><td>6</td><td>in domain specific skills</td><td>1</td><td>in relevant field</td></tr>
<tr><td rowspan="8">2.</td><td rowspan="8">Master Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)</td><td>Minimum Educational Qualification</td><td>Specialization</td><td colspan="2">Relevant Industry Experience</td><td colspan="2">Preferable Training Experience</td></tr>
<tr><td></td><td></td><td>Years</td><td>Specialization</td><td>Years</td><td>Specialization</td></tr>
<tr><td>Post Graduation</td><td>Civil/IT/ECE/Electrical Engineering / Architecture</td><td>5</td><td>in domain specific skills</td><td>2</td><td>in relevant field</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Graduation</td><td>Civil/IT/ECE/Electrical Engineering / Architecture</td><td>7</td><td>in domain specific skills</td><td>2</td><td>in relevant field</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Diploma</td><td>Civil/IT/ECE/Electrical Engineering / Architecture</td><td>9</td><td>in domain specific skills</td><td>2</td><td>in relevant field</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td>Existing ToT certified Trainer</td><td>Digital Connectivity Infrastructure – Evaluator Job role</td><td>5</td><td>in domain specific skills</td><td>5</td><td>in relevant Job role</td></tr>
<tr><td>3.</td><td>Tools and Equipment Required for Training</td><td colspan="6">☒ Yes ☐ No (If “Yes”, details provided in Annexure)</td></tr>
<tr><td>4.</td><td>In Case of Revised Qualification, Details of Any Upskilling Required for Trainer</td><td colspan="6"></td></tr>
</table>

NSQC Approved

Section 4: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines*	**Minimum Educational Qualification**	**Specialization**	**Relevant Industry Experience**		**Preferable Training Experience**	
				Years	**Specialization**	**Years**	**Specialization**
		Post Graduation	Civil/IT/ECE/Electrical Engineering / Architecture	2	in domain specific skills	1	in relevant field
		OR					
		Graduation	Civil/IT/ECE/Electrical Engineering / Architecture	4	in domain specific skills	1	in relevant field
		OR					
		Diploma	Civil/IT/ECE/Electrical Engineering / Architecture	6	in domain specific skills	1	in relevant field
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	**Minimum Educational Qualification**	**Specialization**	**Relevant Technical Experience**			
				Years		**Specialization**	
		Graduation	In any stream	1		in basic computer skills, documentation, coordination etc.	
		OR					
		Diploma	In any stream	2		in basic computer skills, documentation, coordination etc.	
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	**Minimum Educational Qualification**	**Specialization**	**Relevant Industry Experience**		**Preferable Training Experience**	
				Years	**Specialization**	**Years**	**Specialization**
		Post Graduation	Civil/IT/ECE/Electrical Engineering / Architecture	10	in domain specific skills	2	in relevant field
		OR					
		Graduation	Civil/IT/ECE/Electrical Engineering / Architecture	10	in domain specific skills	2	in relevant field
4.	**Tools and Equipment Required for Training**	☒ Yes ☐ No (*If "Yes", details provided in Annexure)*					

NSQC Approved

5.	**Assessment Mode** (Specify the assessment mode)	Offline
6.	**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 2years) (Yes/No):**	Yes
3.	**Government /Industry initiatives/ requirement (Yes/No):**	Yes
4.	**Number of Industry validation provided:**	28
5.	**Estimated nos. of people to be trained and employed:**	1,800 & 1,300
6.	**Evidence of Concurrence/Consultation with Line Ministry/State Departments:** If "No", why:	In Process

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name:

1.	**Annexure:** NCrF/NSQF level justification based on NCrF level/NSQF descriptors *(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

NSQC Approved

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	Advanced knowledge about a multidisciplinary/ interdisciplinary/ cross disciplinary field of technology/ skills/ job role, with specialized in-depth knowledge in one or more related fields. Has awareness and knowledge of the emerging and futuristic developments and issues in the chosen fields of technology/ skills/ job role. Has advanced understanding and Knowledge about the Change management processes and systems. Acquired advanced] knowledge and skills on a wide range of sources for identifying problems and issues relating to the chosen fields of learning, and future improvements. Advanced multidisciplinary and specialized knowledge Proficient in interdisciplinary knowledge including tech with specialized expertise in related fields; knowledgeable in emerging trends, change management, and problem-solving.	Aligned with NCrF Level 5 / NSQF Level 5 , this qualification reflects a professional skill level where individuals apply analytical and technical knowledge to evaluate complex digital infrastructure systems. The role involves independent judgment, problem-solving, and adherence to regulatory frameworks all consistent with the NSQF descriptor that emphasizes skilled technicians who can manage technical functions with minimal supervision and contribute to quality and improvement processes in their domain.	6
Professional and Technical Skills/ Expertise/ Professional Knowledge	Possesses a range of advanced cognitive, professional and technical skills required for performing and accomplishing complex tasks relating to the chosen fields of technology/ skills/ job role. Wide range of cognitive and practical skills required to create innovative and feasible solutions to complex problems and situations in uncertain environment. Project Management Skills, Understanding and application of techno Commercial aspect of technology/associated skills or job role. Skills to adapt to the future of work and to the demands of the fast pace of innovations and technological developments. Social Intelligence Advanced Technical and Managerial Skills proficiently skilled in advanced cognitive abilities, project management, techno-commercial aspects, and future adaptability, with social intelligence.	This qualification reflects a professional skill level where individuals apply technical and analytical skills to evaluate complex digital infrastructure systems independently. The job role involves decision-making, problem-solving, and adherence to regulatory frameworks all consistent with the NSQF descriptor that emphasizes skilled professionals who can manage technical operations with minimal supervision and contribute to quality assurance and improvement initiatives in their domain.	6
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Excellent leadership, Communication, collaboration and organizational skills, Possesses Administrative outlook and leadership traits for managing technical workforce. Effective mentoring, people management, listening, delegation skills, Organization and Time Management,	This qualification reflects a skilled professional level where individuals apply analytical and technical knowledge independently, with minimal supervision. The job role involves decision-making, quality	6

NSQC Approved

	Creative thinking and Innovation, Good logical and mathematical analysis/ simulation modelling skills, Complete understanding of social, political, natural and work environment. Organizing, analyzing, interpreting and acting on the information and effectively communicating and presenting/ using its outcome for decision making. A keen sense of observation, enquiry, and capability for asking relevant/ appropriate questions, Managing complex technical or professional activities or projects, requiring effective, envisioning, planning and full personal responsibility for output of own work as well as for the outputs of the group as a member of the group/team, Apply leadership skills to manage people and resources for achieving organizational objectives and outcomes. Emotional Intelligence Leadership, effective resource management Dynamic leader with exceptional organizational, communication and mentoring skills, capable of driving innovation for optimal group performance.	assurance, and stakeholder coordination all consistent with the NSQF descriptor that emphasizes skilled workers who can manage complex functions, contribute to innovation, and uphold compliance and service excellence in their domain.	
Broad Learning Outcomes/Core Skill	Applies advance theoretical knowledge and specialized professional and technical skills involving complex variable environment and contexts, Effective understanding, monitoring and supervision of critical parameters and KPIs or others, Evaluation and improvement of processes, procedures and work or study activities, Examine and assess the implications and consequences of emerging developments and critical issues. Make judgement in a range of situations by critically reviewing and consolidating evidence and risks, Constantly and regularly pursue self-paced and self-directed learning to upgrade knowledge and skills that will help accomplish complex tasks or pursue education and research. Can identifying problems and issues relating to the chosen fields of learning, and ways of future improvements, Exercises judgement based on evaluation of evidence from a range of sources to arrive at a solution to complex real-life problems in chosen fields of technology/ skills/ job role. Judgement in complex problems Applies advanced technical skills, monitors critical parameters, evaluates and improves	This job role reflects a skilled professional level where individuals apply analytical and technical knowledge independently to evaluate complex digital infrastructure systems. The outcomes emphasize decision-making, problem-solving, and compliance management all consistent with the NSQF descriptor that defines professionals who operate with minimal supervision, ensure quality standards, and contribute to continuous improvement in their domain. This aligns with the broader goal of building a digitally enabled, future-ready urban infrastructure workforce.	6

NSQC Approved

	processes, and solves complex problems with evidence-based judgement in complex problems.		
Responsibility	At level 5.5 the candidate is a Manager/ Technical Manager/ product Manager or equivalent. At level 6.0 the candidate is a Senior Manager/ Senior Technical Manager/ Sr. Product Manager or equivalent. Is responsible for managing a bigger independent unit/ business activity/ project, Responsible for managing activities like planning, resourcing, processes, people, within broad parameters and with complete accountability for determining, achieving and evaluating personal and group outcomes. Effective delegation and monitoring, Exercise full management and supervision of unpredictable work, Responsible for the work of others. Change agent, Team Building, the exercise of full personal responsibility and accountability for the initiatives undertaken and the outputs/outcomes of own work as well as of the group as a team member/ lead Vertical/ Business unit management Manager or Senior Manager Accountable leader effectively manages independent units/projects, delegates, supervises and drives change with full responsibility and team building.	This job role reflects a professional skill level where individuals apply technical knowledge and analytical judgment to evaluate complex digital infrastructure systems. The outcomes emphasize independent decision-making, problem-solving, and compliance management all consistent with the NSQF descriptor that defines skilled professionals who operate with minimal supervision, uphold quality standards, and contribute to continuous improvement in their domain. This qualification supports the development of a digitally enabled workforce aligned with Smart Cities and Digital India initiatives.	6

NSQC Approved

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30 Candidates

S. No.	Tool / Equipment Name	Units	Quantity for specified Batch size	Remarks
1.	Crimping tool	Nos	3	N/A
2.	Cable testers	Nos	30	N/A
3.	Punch-down tools	Nos	30	N/A
4.	Multi-meters	Nos	10	N/A
5.	Routers	Nos	1	N/A
6.	Switches	Nos	3	N/A
7.	Cloud Network servers	Nos	1	N/A
8.	Power supplies	Nos	1	N/A
9.	Cat5e/Cat6 /Cat6a cables	Ft	10	N/A
10.	Fiber optic cables	Ft	10	N/A
11.	Coaxial cables	Ft	15	N/A
12.	RJ45 connectors	Nos	3	N/A
13.	Fiber optic connectors (LC, SC)	Nos	3	N/A
14.	Coaxial connectors	Nos	3	N/A
15.	Network simulation software (NS3)	Nos	1	N/A
16.	Cisco packet tracer student version	Nos	1	N/A
17.	Free CAD	Nos	1	N/A
18.	Cable cutters	Nos	3	N/A
19.	Strippers	Nos	3	N/A
20.	Access points	Nos	1	N/A
21.	Modems	Nos	1	N/A
22.	Keystone jacks	Nos	3	N/A
23.	Cable management accessories	Nos	3	N/A
24.	Cable ties	Nos	3	N/A
25.	Conduits	Nos	3	N/A
26.	Labels	Nos	3	N/A
27.	Markers	Nos	3	N/A
28.	PPE (gloves, goggles, hard hats, insulated gloves, helmet, mask)	Nos	30	N/A
29.	Velcro straps	Nos	10	N/A
30.	ESD wrist straps	Nos	6	N/A
31.	SMF and MMF cable samples with labeling	Nos	1	N/A

NSQC Approved

32.	Splicing trays	Nos	3	N/A
33.	Pigtails	Nos	3	N/A
34.	Connectors	Nos	3	N/A
35.	Patch panels	Nos	3	N/A
36.	Fiber Identification Kit	Nos	1	N/A
37.	Sample routers	Nos	1	N/A
38.	Media converters	Nos	3	N/A
39.	Posters or charts of fiber/copper/wireless media structure	Nos	1	N/A
40.	OTDR (with launch cable)	Nos	1	N/A
41.	Visual Fault Locator (VFL)	Nos	3	N/A
42.	Optical Power Meter and Light Source	Nos	1	N/A
43.	Fiber Cleaver	Nos	3	N/A
44.	Fiber disposal container	Nos	3	N/A
45.	SMF patch cords	Nos	1	N/A
46.	Splice protection sleeves	Nos	6	N/A
47.	Splicing trays and fiber organizer	Nos	1	N/A
48.	RF Spectrum Analyzer	Nos	1	N/A
49.	GPS Device	Nos	1	N/A
50.	Inclinometer (or compass with angle gauge)	Nos	3	N/A
51.	Earth Resistance Tester	Nos	1	N/A
52.	Full-body safety harness with lanyard, Helmet, safety boots, RF exposure alert badge.	Nos	3	N/A
53.	Multimeter (digital)	Nos	1	N/A
54.	Clamp meter or power meter	Nos	3	N/A
55.	Thermal scanner/IR thermometer	Nos	1	N/A
56.	UPS with mock battery bank (demo model)	Nos	1	N/A
57.	Sample server racks	Nos	1	N/A
58.	Labeling machine	Nos	1	N/A
59.	Rack grounding test kit	Nos	1	N/A
60.	Fire extinguisher and smoke sensor mock-up (for awareness)	Nos	1	N/A
61.	Smart phones or tablets with GPS and camera functionality	Nos	1	N/A
62.	Mobile survey apps (e.g., KML-based, Google Forms, GIS-enabled apps like Collector for ArcGIS)	Nos	1	N/A
63.	Measuring tape	Nos	30	N/A
64.	Flashlight	Nos	3	N/A
65.	TEMS or Rohde & Schwarz toolset	Nos	1	N/A
66.	Signal meter	Nos	1	N/A
67.	RF scanner	Nos	1	N/A
68.	Smartphone or tablet with GIS apps (e.g., ArcGIS, QField)	Nos	1	N/A

NSQC Approved

Classroom Aids

The aids required to conduct sessions in the classroom are:

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

NSQC Approved

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in 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.	Aamdhane Pvt. Ltd	Navneet Yadav	Chief Business Officer	Plot no. 645, Vaishnavi Building Spaces & More. Road Number 36 Jubilee Hills, Hyderabad	9455035118	support@amdhan.com	
2.	Acropolis Institute of Technology & Research	Dr Kamal Kumar Sethi	Professor & Head - CSE	Bypass Road, Manglia Square, Indore	7314730000	info@acropolis.in	
3.	Arushi Projects	Arushi	Head	C-29/30, 3rd Floor, Palam Vyapar, Kendra, Palam Vihar, Gurugram	9810284937	arushiprojects11@rediffmail.com	
4.	BK Construction	Bkkakati	Head	Dispur, Guwahati-06-Assam	9859977135		
5.	Bandipora Infotech Pvt. Ltd	Sheikh	Managing Director	Ward no 02 Bandipora J&K	8803133144	Bildiporainfotech@gmail.com	
6.	BRICKS Architect	Mr. V Gulati	Head	517, 5th Floor, AIPL Joy Street, Badshapur, Sector-66, Gurugram	124 4274625	bricksarchitects19@gmail.com	
7.	CRD	Rezwan Umar	Project Manager Cum Site Engineer	Rajdhani Masjid, Dispur, Assam	7002263323	riz1umar@gmail.com	
8.	Distil Education & Technology PVT LTD	Seraj Ahmed	Senior Executive	Dwarka, New Delhi	9877726291	crc@distiledu.com	
9.	Dream Home Builders	Vijay Singhal	Director	Prasanthi, Kuttor, Thiruvalla, Pin: 689106	9446915115	dhkuttoor@gmail.com	
10.	Dyanamite Duro India Pvt Ltd	Mr. Rahul Dev	Commercial Manager	Villa No.119,Palm City, Dehradun	18001214383	info@dynamiteduro.com	

NSQC Approved

11.	India Coast Guard	Manoj Kumar	Jt Director				
12.	Jitender Associates	Jitender Muningum	Proprietor	Plot No A175 , Phase-II, Near Jalakanya Hotel Last Bus Stop Road, Kukatpally,Hyderabad	9849297759	jitendermuningum@gmail.com	
13.	Kamrup Construction	DeepJyoti	Head	Survey,Beltola , Guwahati-28	8453097789	23idomybest23@gmail.com	
14.	KEC –VNC-JV	Ajit Singh Parihar	Sr.Manager	Dr. Annie Besant Road Worli – Mumbai -40030	022-66670200	thottappally@org.com	
15.	L & Q Surveys Pvt Ltd	Mr. S. N. Bansal	Chief Executive Officer	307, 3rd Floor,F-14, F Block, Middle Circle, Connaught Plce	9811039706	lqsur@yahoo.com	
16.	Lailesh Technologies Private Limited	Gunjan Ray	Head	Kolkata	9331076019	Subhasish.b@laileshtech.com	
17.	Gowri constructions	Sudarsanan	Chartered Engineer	munduvadackal avalukkunnu po Alappuzha 688006 kerala, India	8044566819		
18.	NER-Tech &Trading	Mr. Hemanta Borah	General Manager	Zoo – Narengi Road, Guwahati -781024	7002932441	nertech01@gmail.com	
19.	Prince Institute of Innovative Technology (PIIT)	Sh Hem Singh	Asst Professor	Plot No.9, Knowledge Park-111, Greater Noida, Gautam Budh Nagar	6868251818	bharatprincepsingh@gmail.com	
20.	Rajon Consultancy and Management	Mr. Priyadarshi Saurabh	Director	Kharadi, Pune-411014	94230-21707	Priyadarshni.saurabh@rajon-cm.com	
21.	Rakesh & Co	Er. Rakesh Kumar	Engineer	Kennedy Avenue Opp. Hotel Mohan International Amritsar	98786-22786		

NSQC Approved

22.	Sada E Umeed Foundation	Rafaqat Ashraf	Director	Greentwon Sopore Baramulla J&K	9149644536	sadaeumeedfoundation786@gmail.com	
23.	Sri Aurobinda Engineering Institute	Mr Bireshwar Ganguly	President	Plot No. P/4, WBSIDCL Industrial Park-1, Kalyani Silpanchal, Kalyani	9007011451	saci2000@gmail.com	
24.	Teleperformance pvt ltd	Chand	Head	Near Shiv mandir, Hanumangarh road, Abohar distt fazilka 152116			
25.	The NorthCap University	Mr. Lokesh Chaudhary	Asst Professor	HUDA Sector 23A, Gurugram	7838071961	lokeshchoudhary@ncuindia.edu	
26.	United Human Resource	Bhupiner Kumar	HR Manager	Opp. Civil Hospital, Saban Road, Bawal, Distt. Rewari	7056372603	infounitedhumaan@gmail.com	
27.	Unitest Engineering Pvt Ltd.	Ganesh Madhukar Jadhav	Director	Plot No.22 Sr No.150, Bhimashankar Nagar, Morwadi, Pimpri, Pimpri-Chinchwad, Pune, Maharashtra 411018	8007310288		
28.	Vinay Construction Power Pvt Ltd.	Vinay	CEO	Channi Himmat, Jammu - 180015	941911496	vinaygupta@vcpower.in	

NSQC Approved

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	300	250	60	45	As per Industry requirement	As per Industry requirement
2026-27	500	350	100	70	As per Industry requirement	As per Industry requirement
2027-28	1000	700	200	140	As per Industry requirement	As per Industry requirement

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
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

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

1. NA

Content availability for previous versions of qualifications:

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

Languages in which Content is available: English and Hindi

NSQC Approved

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 NOS	List Recommended Tools – for all selected Components	Offline: Online Ratio
1.	☒ Theory/ Lectures - Imparting theoretical and conceptualknowledge	Laptop/PC	7:2
2.	☒ Imparting Soft Skills, Life Skills and Employability Skills / Mentorship to Learners	Laptop/PC	1:1
3.	☐ Showing Practical Demonstrations to the learners		
4.	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shopfloor training		
5.	☐ Tutorials/ Assignments/ Drill/ Practice		
6.	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7.	☐ On the Job Training (OJT)/ Project Work Internship/ Candidate Training		

NSQC Approved

Annexure: Detailed Assessment Criteria

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Perform Evaluation of Framework, Components and Basics of Drone Landing at Digital Infrastructure	**Introduction to DCI Evaluator and Components of DCI**	**10**	**10**		**2**
	PC 1 Identify the key responsibilities and functions of a Digital Connectivity Infrastructure (DCI) Evaluator and how they contribute to the implementation and maintenance of digital services.				
	PC 2 Evaluate how effective digital infrastructure evaluation supports broader national development goals, including economic growth, urban planning, and technological advancement.				
	PC 3 Recognize and describe various elements of smart city infrastructure such as Smart Poles, public Wi-Fi kiosks, and electric vehicle (EV) charging stations.				
	PC 4 Engage with or explain the roles of key players such as the Digital Connectivity Rating Agency (DCRA), Property Managers, Telecom Service Providers (TSPs), and Digital Connectivity Infrastructure Providers (DCIPs) in digital infrastructure deployment.				
	PC 5 Carry out tasks associated with evaluating and assessing digital connectivity infrastructure according to established standards and guidelines.				
	PC 6 Construct or interpret visual representations of DCI components, including sample layouts, system diagrams, and architectural models.				
	PC 7 Develop or analyze basic infrastructure designs and network topologies that support digital connectivity in urban environments.				
	Regulations, Standards and Permissions	**10**	**10**		**2**
	PC 8 Demonstrate knowledge of the roles and responsibilities of TRAI, DoT and BIS in setting policies, regulations, and standards for telecom and digital connectivity infrastructure.				
	PC 9 Locate and implement applicable standards such as BIS structured cabling norms and DoT guidelines for telecom tower setup and fiber optic deployment.				
	PC 10 Analyze central and state-level RoW regulations related to laying underground and overhead telecom infrastructure and apply them in real-world planning scenarios.				
	PC 11 Determine the necessary licenses and compliance categories required for deploying digital connectivity infrastructure in line with regulatory requirements.				
	PC 12 Verify that digital infrastructure projects meet the Model Building Bye Laws (MBBL) and National Building Code (NBC) standards.				
	PC 13 Use national and international benchmarks, including Smart City norms, to assess the preparedness of urban areas for digital connectivity solutions.				

NSQC Approved

	PC 14 Read and explain sample documents such as TRAI recommendations and DoT circulars to understand their implications on DCI planning and execution.				
	PC 15 Illustrate and interpret annexures like site layouts, route maps, NOC requests, and safety certifications required during infrastructure deployment.				
	PC 16 Create and maintain digital records, select routes using mapping tools, and track approval processes involved in DCI implementation.				
	Digital connectivity Registration process and Rating Lifecycle	**10**	**10**		**2**
	PC 17 Assess whether an individual or organization meets the required qualifications and prerequisites for registering with the Digital Connectivity Rating Agency (DCRA).				
	PC 18 Carry out the steps involved in submitting a registration application to the DCRA, including document preparation and submission procedures.				
	PC 19 Follow the process through which registration is approved and how registered entities are listed on the official digital connectivity rating platform.				
	PC 20 Adhere to the terms and requirements specified by regulatory authorities for maintaining valid DCRA registration.				
	PC 21 Perform all duties and responsibilities expected from a registered Digital Connectivity Rating Agency as per regulatory guidelines.				
	PC 22 Execute the registration process for Property Managers under the digital connectivity rating framework, including submission of necessary forms and documents.				
	PC 23 Fulfill the roles and obligations assigned to Property Managers regarding digital infrastructure compliance and property readiness for rating.				
	PC 24 Categorize buildings or developments into appropriate classes according to their type and intended use for digital connectivity evaluation.				
	PC 25 Apply the established methodology to evaluate and rate a property's digital connectivity infrastructure based on defined benchmarks.				
	PC 26 Understand and apply the provisions outlined in TRAI's "Rating of Properties for Digital Connectivity Regulations, 2024" and its associated draft manual for assessments.				
	PC 27 Fill out mock or sample registration forms for DCRA or Property Manager registration, identifying and attaching all required documentation.				
	PC 28 Practice entering data and completing the digital registration process for a sample property, including inputting key details needed for rating.				
	Understand the elements of Active and Passive Infrastructure	**5**	**5**		**2**
	PC 29 Understand the roles of active (e.g., routers, switches, access points) and passive (e.g., cables, patch panels, connectors) network infrastructure.				
	PC 30 Explain how these components interact to enable seamless network communication, adhering to relevant industry standards and protocols.				

NSQC Approved

	PC 31 Understand the set up and configure active network devices, such as routers and switches, to achieve desired network connectivity and functionality.				
	PC 32 How to accurately terminate test passive network components, including cables and connectors, performing comprehensive continuity and performance tests on cabling systems to ensure proper data transmission.				
	PC 33 Understand how to effectively integrate active network components with existing passive infrastructure, ensuring all parts work together as a cohesive system.				
	PC 34 How to systematically inspect both active and passive network systems to identify and resolve potential faults, maintaining overall system integrity and performance.				
	Prior processing for DCI	**5**	**5**		**1**
	PC 35 How to accurately assess the physical environment, including dimensions, layout, ventilation, and power, to determine optimal equipment placement and cable routing. This includes identifying potential obstructions or interference and creating detailed floor plans that designate equipment installation areas.				
	PC 36 How to develop network topology diagrams that visualize device connectivity. Select appropriate cabling types (e.g., Ethernet, fiber optics) and specify routing paths.				
	PC 37 Accurately estimate quantities of all necessary cables, connectors, and hardware components, ensuring adherence to TIA/EIA and ISO/IEC standards.				
	PC 38 Identify to verify the quality of all cables, connectors, and hardware components before installation. This also involves pre-configuring network equipment (routers, switches, access points) with initial settings like default IPs and passwords, and cutting and labeling cables for efficient identification.				
	PC 39 Understand the cable cutting and labeling practices and explain correct crimping of RJ45 connectors test cables for continuity to ensure reliable connections.				
	PC 40 Understand the redundancy and failover mechanisms to ensure uninterrupted connectivity.				
	PC 41 How to set up default IPs, passwords, and initial configurations for all routers, switches, and access points prior to deployment.				
	Basics of Drone Landing at Digital Infrastructure	**5**	**5**		**1**
	PC 42 Understand correct safe drone landing techniques, ensuring proper altitude control, controlled descent speed, and accurate landing zone selection.				
	PC 43 Explain how to apply awareness of site-specific conditions within digital connectivity infrastructure (e.g., Data center rooftops, fiber cable zones) to adjust landing approach.				
	PC 44 Understand how to Assess environmental conditions wind speed, visibility, GPS signals quality and surface stability before commencing landing.				
	PC 45 Discuss how to implement precautionary measures to minimize electromagnetic interference (EMI) and safeguard network hardware or communication lines.				

NSQC Approved

	PC 46 Understand how to respond effectively to operational challenges such as signal loss, sensor malfunctions, or obstacle detection alerts during descent.				
	PC 47 Understand DGCA regulations and site-specific standard operating procedures while executing drone landing.				
	NOS Total	**45**	**45**		**10**

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Conduct Assessments on DCI Compliance and Resilience as per MBBL & NBC	**Digital Connectivity Compliance as per Model Building Bye Laws (MBBL) and National Building Code (NBC)**	**15**	**15**		**3**
	PC 1 Explain how Model Building Byelaws and National Building Code influence digital infrastructure requirements in new and existing buildings.				
	PC 2 Identify key sections in MBBL and NBC that address structured cabling, safety standards, and future-ready digital infrastructure.				
	PC 3 Develop infrastructure plans that align with legal and technical requirements for formal design clearance.				
	PC 4 Apply standards for horizontal/vertical pathways, telecom entry points, telecom rooms, and HVAC systems specific to telecom areas.				
	PC 5 Adherence to approved layouts to ensure reliable service delivery and long-term scalability of digital networks.				
	PC 6 Monitor and confirm that actual installations strictly follow finalized plans to avoid performance issues.				
	PC 7 Understand the implementation of best practices for consistency, durability, and ease of maintenance in digital infrastructure rollouts.				
	PC 8 Compare final construction records with initial designs to identify any changes made during implementation.				
	PC 9 Distinguish between minor and major modifications and assess their impact on overall system functionality.				
	PC 10 Analyze how design or implementation gaps can affect network expansion, service reliability, and smart technology integration.				
	PC 11 Prepare and manage reports, drawings, and inspection records to support regulatory audits and approvals.				
	PC 12 Use standardized scoring methods to evaluate how well a project meets digital infrastructure requirements.				
	PC 13 Review blueprints and building plans to ensure they incorporate all necessary digital infrastructure components.				

NSQC Approved

	PC 14 Confirm that required approvals have been issued by qualified professionals or agencies.				
	PC 15 Compare real-world setups with approved digital infrastructure designs.				
	PC 16 Record findings from inspections, including photographs and notes, to support verification processes.				
	PC 17 Clearly note any discrepancies found during field checks and classify them based on severity.				
	PC 18 Ensure that all installed components have valid test results and operational certifications confirming proper function.				
	Robust Digital Connectivity in Civil Infrastructure as per MBBL and NBC	**10**	**10**		**3**
	PC 19 How exceeding building code requirements can lead to improved digital service delivery and long-term efficiency.				
	PC 20 Understand the implement strategies that ensure infrastructure can support evolving technologies and easy upgrades.				
	PC 21 Evaluate telecom rooms, cable pathways, and ducts to confirm they can accommodate growing network demands.				
	PC 22 Ensure telecom infrastructure includes flexible horizontal and vertical cable routes and backup access points.				
	PC 23 Inspect buildings to determine if they are ready for 5G/6G, fiber optics, IoT, and machine-to-machine communication systems.				
	PC 24 Confirm designated areas for mobile towers, Wi-Fi, distributed antenna systems (DAS), and DTH installations.				
	PC 25 Verify that infrastructure includes clear access paths for maintenance, repair, and system upgrades.				
	PC 26 Confirm that all equipment, cables, and pathways are clearly marked for ease of operation and troubleshooting.				
	PC 27 Analyze layout plans, site images, and feasibility reports to assess future-proof potential.				
	PC 28 Use defined parameters to evaluate how well a site supports future modifications and maintenance.				
	PC 29 Physically examine telecom rooms, ducts, and pathways to verify their capacity for scaling and upgrading.				
	PC 30 Assess how easy it is to install, repair, or replace telecom systems within existing civil structures.				
	PC 31 Check whether extra room has been allocated for telecom ducts, risers, and service areas beyond minimum norms.				
	PC 32 Highlight infrastructure components designed with higher capacity or flexibility than required by codes.				

NSQC Approved

	PC 33	Examine telecom rooms and cable routes to ensure they can support upcoming mobile and wired technologies.				
	PC 34	Review physical allocations for base stations, DAS, Wi-Fi, and satellite systems to ensure adequacy.				
	PC 35	Confirm that telecom rooms, ducts, and connection points are easily reachable for service and upgrades.				
	PC 36	Inspect markings on equipment, cabling, and infrastructure to ensure clarity and correctness.				
	Reliable Digital Connectivity in Power Infrastructure, as per MBBL or NBC					
	PC 37	Recognize and implement strategies to maintain continuous power for critical digital infrastructure components.				
	PC 38	Confirm that redundant systems like generators and alternative energy sources are in place to support DCI during outages.				
	PC 39	Assess how Uninterruptible Power Supply units contribute to uninterrupted operation of telecom and data equipment.				
	PC 40	How load analysis to ensure UPS systems can support required backup time and share loads effectively in redundant configurations.				
	PC 41	How to set up and utilize monitoring tools to track power system performance and detect anomalies promptly.				
	PC 42	How to use real-time status displays, health indicators, and automated alerts to manage DCI power infrastructure proactively.				
	PC 43	Ensure centralized control of fire alarms, HVAC, access control, and power systems through BMS for improved operational efficiency.				
	PC 44	Evaluate the impact of BMS connectivity on the reliability and availability of digital infrastructure services.	**10**	**10**		**2**
	PC 45	Compile and examine power layout diagrams, switchover test reports, BMS architecture plans, and monitoring screenshots.				
	PC 46	Evaluate compliance using defined parameters for redundancy, UPS duration, and monitoring/BMS integration.				
	PC 47	Conduct on-site checks to confirm that alternate power sources are installed and functional for key DCI systems.				
	PC 48	Simulate automatic transfer from main to backup power to ensure seamless transition during outages.				
	PC 49	Review electrical layouts to confirm that all critical systems are connected to and protected by UPS units.				
	PC 50	Compare the rated output of UPS systems with the total load of connected DCI equipment to ensure adequate coverage.				
	PC 51	Carry out practical tests to confirm that the UPS provides stable and uninterrupted power when input power is cut off.				

NSQC Approved

	PC 52	Verify that dashboards display current power conditions, system health, and alerts as intended.				
	PC 53	Trigger or simulate power faults to check if warning systems notify responsible personnel in a timely manner.				
	PC 54	Ensure that critical building systems are linked to the BMS for unified monitoring and control.				
	PC 55	Test whether the BMS sends notifications and updates regarding system events or failures accurately.				
	Resilience Digital Connectivity Infrastructure					
	PC 56	Demonstrate understanding of how resilient infrastructure ensures continuous digital connectivity during disruptions.	**10**	**10**		**2**
	PC 57	Assess how well digital infrastructure can withstand failures, avoid downtime, and manage high network traffic.				
	PC 58	Confirm that multiple access points are available for telecom services to ensure route diversity.				
	PC 59	Identify how having separate routes for connectivity minimizes risks from faults or physical damage.				
	PC 60	Confirm that alternative connectivity paths reach critical internal infrastructure areas like telecom rooms.				
	PC 61	How to apply protective measures such as raised installations, waterproof enclosures, and proper drainage to prevent water damage.				
	PC 62	Verify that telecom rooms and critical power systems (like UPS and generators) are located on elevated floors or platforms.				
	PC 63	Ensure dedicated drainage mechanisms are in place to prevent flooding in telecom and power equipment rooms.				
	PC 64	Check that backup power sources and diverse cable routes (fiber, copper) are provided within the building.				
	PC 65	Confirm separate routing for cables between towers, basements, and other structural zones.				
	PC 66	Ensure there are dual, distinct routes for digital connectivity leading up to key aggregation points.				
	PC 67	Examine design layouts, photographs, and technical drawings to verify adherence to resilience standards.				
	PC 68	Evaluate DCI using defined parameters like alternate paths, flood protection, and system redundancies.				
	PC 69	Physically inspect infrastructure to confirm presence of alternative telecom entry points and routing.				
	PC 70	Ensure infrastructure supports simultaneous operations from multiple telecom service providers.				
	PC 71	Confirm telecom rooms are placed on higher floors or away from flood-prone zones.				

NSQC Approved

	PC 72 Ensure UPS units, switchgear, and generators are mounted safely above potential flood levels.				
	PC 73 Ensure no plumbing or drainage lines pass through or drain into telecom or power equipment rooms.				
	PC 74 Inspect and validate that drainage mechanisms prevent water backflow and flooding in DCI areas.				
	PC 75 Confirm presence and readiness of main grid supply along with backup options like generators and UPS systems.				
	PC 76 Check that multiple cables follow separate physical routes across building blocks for redundancy.				
	PC 77 Ensure digital connections follow completely separated routes to enhance reliability.				
	PC 78 Compile findings, photos, test results, and observations into formal evaluation reports.				
	NOS Total	**45**	**45**		**10**

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Perform Evaluation for Future-Ready Digital Connectivity in Infrastructure, Services and User Experience	**Digital Connectivity Infrastructure demand or readiness in future**	**9**	**9**		**2**
	PC 1 Show how infrastructure planning supports adaptability, scalability, and integration with new technologies.				
	PC 2 Assess whether current infrastructure can support innovations like 5G, Wi-Fi 6/7, and smart building systems.				
	PC 3 Ensure that DCI supports evolving standards such as high-speed, low-latency, and reliable communication for 4G/5G and beyond.				
	PC 4 Confirm presence and functionality of systems critical for strong wireless and wired connectivity.				
	PC 5 Apply best practices that ensure seamless integration of upcoming frequency bands and communication protocols.				
	PC 6 Inspect radio units, baseband units, duplexers, combiners, and transmitters for compatibility with next-gen systems.				
	PC 7 Validate that fiber infrastructure supports high data throughput and meets modern connectivity demands.				
	PC 8 Check if the system supports speeds like 1 Gbps, 10 Gbps, and uses technologies like DWDM and PON.				
	PC 9 Evaluate pathways, ducts, and termination points to determine if they allow for easy fiber additions.				
	PC 10 Compile and examine equipment lists, photos, BoM, datasheets, and other records related to wireline upgrades.				

NSQC Approved

	PC 11	Rate infrastructure using defined parameters like technology compatibility, band support, and bandwidth capacity.				
	PC 12	Conduct field checks to verify installation quality and performance readiness of telecom gear and validate whether installed systems work with existing bands and can evolve with new ones.				
	PC 13	Determine whether current systems can be upgraded without major overhauls to support new tech.				
	PC 14	Examine whether antennas, radios, and signal processors meet requirements for future applications.				
	PC 15	Measure if the network currently supports or can be upgraded to handle 1 Gbps, 10 Gbps, or more.				
	PC 16	Confirm whether the deployed fiber can support advanced optical networking techniques.				
	PC 17	Ensure that existing infrastructure allows for adding more fiber cables when needed.				
	PC 18	Verify that patch panels and racks are designed to support future scaling and reconfiguration.				
	PC 19	Document findings along with Bill of Materials, datasheets, test results, and photographs.				
	Wired Digital Connectivity					
	PC 20	Show how high-speed, reliable, and low latency wired connections support modern digital services.	**9**	**9**		**2**
	PC 21	Assess how DCI meets the needs of business operations, smart buildings, and residential broadband.				
	PC 22	Confirm that strong fiber links are in place between telecom providers and the property.				
	PC 23	Identify how fiber improves performance for cloud computing, video conferencing, and smart building systems.				
	PC 24	Ensure backup routes are available to maintain connectivity during outages.				
	PC 25	Confirm that fiber reaches residential, office, and commercial units for optimal performance.				
	PC 26	Demonstrate how fiber enables 5G backhaul, cloud access, and advanced smart building features.				
	PC 27	Ensure cabling design allows for efficient installation, maintenance, and scalability.				
	PC 28	Promote universal coverage to avoid network dead zones and ensure consistent digital experiences.				
	PC 29	Locate and resolve issues causing inconsistency or missing digital access across the property.				
	PC 30	Examine fiber test reports, termination photos, architecture diagrams, and site surveys.				

NSQC Approved

	PC 31 Rate properties using parameters like number of service providers, percentage of connected units, and room-level fiber reach.				
	PC 32 Conduct field checks to verify condition, installation, and performance of backbone fiber systems.				
	PC 33 Check that alternate fiber paths are available and functional to prevent service loss.				
	PC 34 Test peak and average speeds to confirm real-world network capabilities.				
	PC 35 Physically verify that fiber reaches each designated space within the building.				
	PC 36 Analyze distribution layouts to ensure they match actual installations and support scalability.				
	PC 37 Carry out visual checks in selected units to verify installed infrastructure and connection points.				
	PC 38 Perform sample tests to ensure active and stable connections throughout the network.				
	PC 39 Document findings along with test data, photos, and architectural drawings.				
	Digital Connectivity Infrastructure Service Providers	**9**	**9**		**2**
	PC 40 Show how multiple Internet Service Providers (ISPs) and mobile service providers improve competition, reliability, and redundancy.				
	PC 41 Explain how property managers, businesses, and residents gain from better service options, continuity, and cost efficiency.				
	PC 42 Use inspection and documentation checks to confirm that internet providers are properly connected to the building's digital systems.				
	PC 43 Examine legal contracts and technical documents to ensure compliance with connectivity standards.				
	PC 44 Confirm that all connected internet providers are active and delivering expected service levels.				
	PC 45 Check that telecom services from various providers offer strong and consistent signal strength indoors.				
	PC 46 Ensure these technologies are in place to enhance mobile signal quality within the premises.				
	PC 47 Compile service agreements, integration certificates, performance tests, RF maps, and subscription records for audit and evaluation.				
	PC 48 Rate properties using defined parameters such as number of ISPs/TSPs and percentage of area covered.				
	PC 49 Conduct on-site checks to identify and validate installations from different internet service providers.				
	PC 50 Analyze sample documents to ensure they reflect actual deployment and functionality.				
	PC 51 Document findings include integration details, coverage results, and supporting evidence.				

NSQC Approved

	Digital Connectivity Infrastructure Service Quality Assessment				
	PC 52 Collect data on signal strength, download/upload speeds, latency, voice/video call quality, call setup success, retainability, and uptime.				
	PC 53 Conduct tests in both public and private spaces, including lifts, basements, and other low-coverage zones.				
	PC 54 Use standard tools and procedures to evaluate radio frequency signal strength and quality across the property.				
	PC 55 Capture variations in speed and call quality throughout the day to reflect real-world usage.				
	PC 56 Validate that measured values meet regulatory standards for mobile service quality.				
	PC 57 Check compliance with WPA2/WPA3 standards, along with performance metrics like speed and latency.				
	PC 58 Ensure that wireless connectivity supports seamless access for data and voice applications.				
	PC 59 Measure actual average download speeds from ISPs offering premium packages.				
	PC 60 Analyze discrepancies between promised and experienced broadband performance.				
	PC 61 Compile RF maps, test logs, Wi-Fi heatmaps, call reports, and security audit records for review.	**9**	**9**		**2**
	PC 62 Rate properties using defined parameters such as coverage area, minimum speeds, and number of compliant providers.				
	PC 63 Use industry-standard tools to test signal strength in lobbies, corridors, lifts, basements, offices, and residential units.				
	PC 64 Record data speed and call quality at different times, especially during high-traffic periods.				
	PC 65 Locate and document all zones where wireless connectivity is available for users.				
	PC 66 Conduct sample checks to ensure wireless networks are secured using current encryption standards.				
	PC 67 Simulate real-time user conditions to validate network reliability under stress.				
	PC 68 Use standard tools (e.g., TRAI My Speed App) for speed testing				
	PC 69 Perform measurements at multiple user locations during high-traffic periods for accurate results.				
	PC 70 Create and interpret visual representations of signal strength and wireless coverage.				
	PC 71 Document findings, test outcomes, visual aids, and recommendations in formal assessment formats.				
	Digital Connectivity Infrastructure: User Perception & Feedback				
	PC 72 Evaluate how mobile, wireline, and Wi-Fi services impact overall user satisfaction and usability.	**9**	**9**		**2**
	PC 73 Measure key UX indicators such as network reliability, speed, latency, accessibility, call quality, streaming performance, and service stability				

NSQC Approved

	PC 74 Apply standards for gathering responses from at least 10% of users (if less than 1000), or at least 100 users (if more than 1000).				
	PC 75 Create surveys that assess voice call quality, access success, data speeds, coverage, latency, and service uptime.				
	PC 76 Review and prepare feedback tools according to standardized checklists for completeness and accuracy.				
	PC 77 Rate properties by the percentage of users reporting positive experiences (e.g., 80%, 70%, 50%, 40%).				
	PC 78 Upload or maintain required documents on the rating platform or with DCRA				
	PC 79 Distinguish between valid and incomplete submissions during document verification.				
	PC 80 Summarize assessment outcomes, scores, charts, and evidence in a structured format for stakeholders.				
	NOS Total	**45**	**45**		**10**

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Conduct DCI Audit Reporting, Monitoring, feedback and non-compliance management	**Reporting, Monitoring, Feedback, and Non - Compliance**	**45**	**45**		**10**
	PC 1 Apply a structured approach to prepare DCI audit and compliance reports				
	PC 2 Follow standardized procedures to document findings, identify non-compliance issues, and maintain deviation logs for TRAI rating submissions.				
	PC 3 Understand and apply DCRA's regulatory responsibilities under Regulation 11				
	PC 4 Monitor and analyze complaints and feedback from service providers and users regarding property ratings.				
	PC 5 Evaluate stakeholder feedback to determine need for rating review or corrective actions				
	PC 6 Understand the implement a standardized process for collecting and managing stakeholder feedback				
	PC 7 Guide or assist property managers in responding to digital connectivity-related issues raised by users or service providers.				
	PC 8 How to improve digital infrastructure connectivity quality annual review of feedback data by DCRA				
	PC 9 Support property managers in implementing corrective actions				
	PC 10 Assist in identifying solutions to address non-compliance and ensure infrastructure meets required standards.				
	PC 11 Review documents like speed test results, photos, and test reports to ensure support audit findings.				
	PC 12 feedback data on a rating platform sort inputs based on themes such as network performance, infrastructure gaps, or general improvement ideas.				

Not Approved

	PC 13	Prepare comprehensive summary reports for DCRA				
	PC 14	Compile audit outcomes, stakeholder feedback analysis, conclusions, and recommendations for property managers.				
	PC 15	Identify relevant types of supporting evidence for feedback claims (e.g., screenshots, photos, test logs) validates user-reported problems.				
	PC 16	Organize audit findings into formal report formats (PDF/Excel) that include images, compliance status, and corrective action plans.				
	PC 17	Use mobile devices for real-time reporting during site visits capture and upload data, photos, and notes instantly using smartphones or tablets to streamline evaluation processes.				
	NOS Total		**45**	**45**		**10**

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes		Theory Marks	Practical Marks	Project Marks	Viva Marks
Perform Reassessment, Renewal and Appeal management in DCI Rating award process	**Digital Connectivity Award of Rating and Reassessment**		**25**	**25**		**5**
	PC 1	Understand the rating categories (e.g., A, B, C) used to reflect infrastructure quality and service reliability.				
	PC 2	Interpret the purpose and value of different rating levels				
	PC 3	Assess how long rating remains valid based on infrastructure stability and regulatory guidelines.				
	PC 4	Identify factors that affect rating validity duration				
	PC 5	Explain when re-rating is required and the eligibility conditions				
	PC 6	Expansion of fiber networks (increased capacity and coverage),				
	PC 7	Installation of in-building solutions (IBS) for better indoor mobile signal,				
	PC 8	Enhancement of power backup systems (UPS, generators),				
	PC 9	How to integrate smart network monitoring tools.				
	PC 10	Evaluate how adoption of 5G, Wi-Fi 6/7, and high-speed fiber improves digital services.				
	PC 11	Compare pre- and post-upgrade metrics to confirm enhanced service quality.				
	PC 12	Measure improvements in speed, latency, and network resilience after enhancing service quality.				
	PC 13	How next-gen services like IoT automation drive demand for higher ratings				
	PC 14	Analyze occupant or business-driven needs prompting re-rating requests				
	PC 15	Apply case studies to determine appropriate rating validity periods				
	PC 16	Examine implementation plans, certification records, and technical reports to support re-rating claims.				
	PC 17	Use user feedback and demand data to justify upgrade-based re-rating				
	PC 18	Describe all re-rating submissions that meet current standards and contractual obligations.				

NCVET Approved

	Digital Connectivity Rating Renewal and Appeal process				
	PC 19	Follow prescribed deadlines to maintain uninterrupted digital connectivity rating status.			
	PC 20	Navigate the correct channels and procedures for submitting renewal requests			
	PC 21	Record all modifications including network expansions, new solutions, or power system upgrades.			
	PC 22	Prepare and submit a formal self-declaration confirming continued compliance with MBBL and NBC standards.			
	PC 23	Ensure timely payment of required charges to avoid rejection or delays.			
	PC 24	Apply consistent criteria during renewal evaluations to ensure fairness and accuracy.			
	PC 25	Review and compile necessary records for renewal assessment			
	PC 26	Facilitate on-site or remote inspections to confirm ongoing adherence to original rating standards.			
	PC 27	Review performance data and stakeholder input to evaluate network availability and quality.			
	PC 28	Verify ongoing compliance with MBBL, NBC, and other digital infrastructure standards			
	PC 29	Initiate a dispute or request reconsideration if dissatisfied with the rating decision	**20**	**20**	**5**
	PC 30	Provide clear justification for appeal based on specific rating criteria			
	PC 31	Submit supporting materials such as technical reports or third-party assessments.			
	PC 32	Present new evidence of DCI improvements not considered previously			
	PC 33	Be prepared for possible results: revised rating, upheld rating, or corrective action recommendations.			
	PC 34	Follow timelines and format guidelines for appeal submission			
	PC 35	Pay applicable fees for escalation to the Authority level			
	PC 36	Recognize the finality of the Authority's decision after the appeal period expires			
	PC 37	Participate in different types of examination methods for appeals			
	PC 38	Compile complete renewal documentation including upgrade details, declarations, and payment proofs			
	PC 39	Identify and address gaps in previous documentation before renewal			
	PC 40	Practice renewal and appeal scenarios through role-playing exercises			
	PC 41	Select appropriate documentation to support an appeal case			
	PC 42	Follow procedural steps for filing an appeal with DCRA and escalating to the Authority if needed			
	NOS Total		**45**	**45**	**10**

NSQC Approved

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes		Theory Marks	Practical Marks	Project Marks	Viva Marks
Perform Remedial Risk Assessment and Mitigations Strategies for DCI	**Digital Connectivity Infrastructure Risks, Faults and Remediation**		**45**	**45**		**10**
	PC 1	Recognize potential threats such as electrical faults, network failures, physical damage, and environmental dangers in DCI.				
	PC 2	Analyze root causes of common infrastructure faults and non-compliance issues				
	PC 3	How to implement appropriate remedial actions and mitigation strategies for DCI issues				
	PC 4	Document all corrective measures and update evaluation reports accordingly				
	PC 5	How to a take corrective action based on test and inspection results use data from assessments to guide repairs, replacements, or system upgrades.				
	PC 6	Review sample DCI layouts or images to identify critical components and vulnerabilities				
	PC 7	Identify and categorize hazards list observed risks during site inspections or evaluations				
	PC 8	Recommend power load at a Power Distribution Unit (PDU) and suggest improvements				
	PC 9	Maintain a detailed risk register documenting each fault, its cause, impact, and resolution				
	PC 10	How to update DCI evaluation reports with the status of remediation efforts to ongoing actions and pending tasks in formal documentation.				
	NOS Total		**45**	**45**		**10**

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes		Theory Marks	Practical Marks	Project Marks	Viva Marks
Perform Workplace Safety Practices during DCI Evaluation	**Workplace Safety Practices**		**35**	**35**		**5**
	PC 1	Demonstrate proper use of fall protection equipment such as harnesses, lanyards, and fall arresters during elevated work.				
	PC 2	How to implement lockout and tagout processes, ensure proper grounding, and handle electrical components with care to avoid hazards.				
	PC 3	Recognize potential dangers associated with telecom towers, fiber cable installation, and data center operations.				
	PC 4	Identify hazards such as falls, electric shock, heat exposure, and unsafe working conditions before starting work.				
	PC 5	Use risk matrices to determine which hazards require immediate attention or mitigation.				
	PC 6	Apply safety barriers, fire prevention systems, and emergency response plans to reduce or eliminate identified risks.				

NSQC Approved

	PC 7	Follow rules for signage placement, equipment inspection, and team communication to maintain a safe worksite.				
	PC 8	Apply correct protocols when entering underground or enclosed spaces for DCI installation or maintenance.				
	PC 9	Demonstrate how to correctly fit helmets, gloves, boots, and harnesses according to safety standards.				
	PC 10	Set up and operate lifelines, lanyards, and anchor points to prevent injuries from falls.				
	PC 11	Demonstrate secure accent and descent while following all safety guidelines during tower work.				
	PC 12	Select and apply the right harness, rope, and fall arrest system to minimize climbing risks.				
	PC 13	Inspect areas for hazards like exposed cables, unstable structures, or unsecured equipment.				
	PC 14	Document findings and recommend steps to improve safety conditions at the worksite.				
	PC 15	Apply first aid in cases of electric shock or fall injuries and follow procedures for contacting emergency services.				
	PC 16	Know how to safely exit a site and follow specific emergency protocols based on location and job type.				
	Material / energy / electricity conservation practices					
	PC 17	implement ways to optimize usage of material including water in various tasks/activities/processes	**10**	**10**		**5**
	PC 18	supervise the team to ensure responsible use of resources				
	PC 19	motivate the team to carry out routine cleaning of tools, machines and equipment				
	PC 20	guide the team to optimize use of electricity/energy in various tasks/activities/processes				
	PC 21	implement periodic checks of the functioning of the equipment/machine and rectify wherever required				
	PC 22	guide the team to report malfunctioning and lapses in maintenance of equipment				
	PC 23	implement ways to use electrical equipment and appliances properly				
	NOS Total		**45**	**45**		**10**

NSQC Approved

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**					
	PC 1	understand the significance of employability skills in meeting the current job market requirement and future of work	1	1		
	PC 2	identify and explore learning and employability relevant portals				
	PC 3	research about the different industries, job market trends, latest skills required and the available opportunities				
	Constitutional values – Citizenship					
	PC 4	recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	1	1		
	PC 5	follow environmentally sustainable practices				
	Becoming a Professional in the 21st Century					
	PC 6	recognize the significance of 21st Century Skills for employment	1	3		
	PC 7	practice the 21st Century Skills such as Self Awareness, behavioral skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life				
	PC 8	adopt a continuous learning mindset for personal and professional development				
	Basic English Skills					
	PC 9	use basic English for everyday conversation in different contexts, in person and over the telephone	3	4		
	PC 10	read and understand routine information, notes, instructions, mails, letters etc. written in English				
	PC 11	write short messages, notes, letters, e-mails etc. in English				
	Career Development & Goal Setting					
	PC 12	identify career goals based on the skills, interests, knowledge, and personal attributes	1	2		
	PC 13	prepare a career development plan with short- and long-term goals				
	Communication Skills					
	PC 14	follow verbal and non-verbal communication etiquette while communicating in professional and public settings	2	2		
	PC 15	use active listening techniques for effective communication				
	PC 16	communicate in writing using appropriate style and format based on formal or informal requirements				
	PC 17	work collaboratively with others in a team				
	Diversity & Inclusion					
	PC 18	communicate and behave appropriately with all genders and PwD	1	1		
	PC 19	escalate any issues related to sexual harassment at workplace according to POSH Act				

NCVET Approved

	Financial and Legal Literacy				
	PC 20 identify and select reliable institutions for various financial products and services such as bank accounts, debit and credit cards, loans, insurance etc.	**2**	**3**		
	PC 21 carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook				
	PC 22 identify common components of salary and compute income, expenses, taxes, investments etc				
	PC 23 identify relevant rights and laws and use legal aid to fight against legal exploitation				
	Essential Digital Skills				
	PC 24 operate digital devices and use their features and applications securely and safely	**3**	**5**		
	PC 25 carry out basic internet operations by connecting to the internet safely and securely, using mobile data or other available networks through Bluetooth, Wi-Fi, etc				
	PC 26 display responsible online behaviour while using various social media platforms				
	PC 27 create a personal email account, send and process received messages as per requirement				
	PC 28 carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications				
	PC 29 utilize virtual collaboration tools to work effectively				
	Entrepreneurship				
	PC 30 identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	**2**	**3**		
	PC 31 develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion				
	PC 32 identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity				
	Customer Service				
	PC 33 identify different types of customers and ways to communicate with them	**1**	**2**		
	PC 34 identify and respond to customer requests and needs in a professional manner				
	PC 35 use appropriate tools to collect customer feedback				
	PC 36 follow appropriate hygiene and grooming standards				
	Getting ready for apprenticeship & Jobs				
	PC 37 create a professional Curriculum vitae (Resume)	**2**	**3**		
	PC 38 search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively				
	PC 39 apply to identified job openings using offline /online methods as per requirement				
	PC 40 answer questions politely, with clarity and confidence, during recruitment and selection				
	PC 41 identify apprenticeship opportunities and register for it as per guidelines and requirements				
	NOS Total	**20**	**30**		

NSQC Approved

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 ICES affiliated Assessment Agencies. Assessors are trained & certified by ICES after Training of Assessor (ToA) program. Assessments are conducted to gauge and assess the trainee's skill and knowledge competency in the specified areas.
The assessment will have both theory, practical and viva components as per ratio specified in each NOS for **Digital Connectivity Infrastructure – Evaluator** 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 ICES. The Assessor submits an assessment plan to ICES 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, practical and viva 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 are used to make a judgment on the level of performance.

ICES will be monitoring thoroughly the complete Assessment process.

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 only.
- The knowledge/theory assessments are 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 MCQ type questions, pictorial questions etc. which will test the trainee on his theoretical knowledge of the subject.
    - 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.
    - Viva Testing will be conducted during or post to the practical assessment by the assessor concerned. This Viva Assessment is applicable to understand the outcomes from OJT attended by the concerned candidate.
- One (1) Assessor is eligible to conduct assessments of a batch of maximum 30 candidates.
- The assessment must comprise of two components, namely:
    - Knowledge assessment (Theory and Viva assessment)

NSQC Approved

- Skill assessment (Practical / Hands-on Skill assessment)

3. **Mode of assessment**
   - Demonstration/Practical Performance /Skill Assessment
   - Synoptic multiple-choice question test for Theory Assessment
   - Viva for Knowledge Assessment (Applicable to note the outcomes from OJT only)
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 Theory (written) Test and Viva Test
   - Synoptic test is used for this. It is an MCQ (Multiple Choice Question) test which is prepared externally and externally marked, meaning by agency having no link with training partners.
   - The Viva test will be conducted by the assessor in the oral mode considering the communication and domain understanding of skills of trainees.
   - The assessment strategy, weightage and duration of assessment for **Digital Connectivity Infrastructure – Evaluator** is summarized below

Assessment Type	Formative or Summative	Strategies	Weightage	Duration (hours)
Knowledge	Summative	MCQ	45	1 hour
Knowledge	Summative	Viva	10	1 hour
Skill	Summative	Structured practical Task	45	7 hours

6. **Assessment Quality Assurance levels/Framework**
   - ICES 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 they ensure valid, consistent and fair assessments at all locations. Issued to the affiliated Assessment body. The Assessment Body develops questions based on ICES's approved assessment criteria.
   - The training partner will intimate the time of arrival of the assessor and time of leaving the venue. Random spot checks/audit may conducted by ICES to monitor assessment.
   - Continuous Monitoring through virtual and In-person mode are conducted to ensure the assessment is conducted as per stipulated process
   - Process and Technical audit of assessment batches by quality team are conducted to avoid errors in assessment process
   - A well -defined comprehensive framework of NON-COMPLIANCE MATRIX is defined and implemented to identify the non-compliance made by assessor and AA and punitive actions are taken correspondingly.
   - The capacity building sessions are conducted regularly for assessors and assessment agencies to update them about best practices in assessment

NSQC Approved

4. Types of evidence or evidence-gathering protocol:

- Evidence in the form of answer sheets in case of knowledge assessments (Theory only) is collected.
- For Practical and Viva assessments videos and photographs are prepared as evidence. These are submitted by the assessor to the assessment agency. ICES does random checks of the same with the participant/ trainee's ID and ascertains authenticity and validity of assessments.
- Post Assessment, the evidence are uploaded by Assessor to assessment agency and further assessment agency to ICES as per stipulated TAT
- Evidence are broadly photographic and video graphics in nature (Geo-Tagged)
- Results along with evidence to be submitted to ICES by the concerning Assessment Agency in the prescribed format and on Digital Format and Physical Format (As required)
- Results to be uploaded on SIDH and other relevant portals for collective data management.

5. Method of verification or validation:

- The process and technical audit of assessment batches are done by Awarding Body
- Attendance of each candidate is verified, and it is ensured that only those candidates are assessed by assessors who are meeting the stipulated minimum percentage of attendance
- The result of each candidate is verified; it is verified that that result on SIP is matched with respect to summary sheet submitted by AAs
- Under detailed technical audit for sample batches, the knowledge and skill assessment results for each candidate are checked in technical aspect.
- All the evidence of batches are preserved on server of Awarding Body digital platform

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 ICES. 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 / Engineer / other authorized head of departments of relevant industry under which candidates undergo on job training.
- The Assessment is subject to take place only after submission of OJT data (in case of STT only) approved by concerned industry and training provider.
- The Hard copy of the OJT report (on trainings, outcomes, exposures learnt and feedback certified by Supervisor / Engineer / other authorized head of departments of relevant industry) will be submitted to the Assessor by the concerned candidate on the Assessment date only, failing which the candidate may not be allowed for attending the Assessment.
- As OJT is mandatory for this QP, the TP should ensure the correct submission of all relevant reports pertaining to OJT of each trained candidate. The Assessment agency is responsible for collecting all the relevant information and submit the same to ICES in future (if required).

NSQC Approved

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
AB	Awarding Body
AA	Assessment Agency
TP	Training Partner
TC	Training Centre
ITI	Industrial Training Institute
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NEP	New Education Policy
QP	Qualification Pack
Q-File	Qualification File
MC	Model Curriculum
NOS	National Occupational Standard(s)
PC	Performance Criteria
KU	Knowledge and Understanding
GS	Generic Skills
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
DDUGKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
STT	Short Term Training
RPL	Recognition of Prior Learning
NAPS	National Apprenticeship Promotion Scheme
NQR	National Qualification Register
OJT	On the Job Training
NSQC	National Skill Qualification Committee
NSQF	National Skills Qualification Framework
EMF	Electro Motive Force
LV	Low-Voltage
AC	Alternating Current
DC	Direct Current
DB	Distribution Boards
APFC	Automatic Power Factor Control

NSQC Approved

MCB	Miniature Circuit Breaker
ELCB	Earth Leakage Circuit Breaker
CCTV	Closed-Circuit Television
HVAC	Heating, Ventilation and Air Conditioning
BMS	Building Management System
BIM	Building Information Modeling
RF	Radio Frequency
MoCA	Multimedia over Coax Alliance
SNR	Signal-to-Noise Ratio
FTTH	Fiber to the Home
ISP	Internet Service Provider
IP	Internet Protocol
NOC	No Objection Certificate
DCI	Digital Connectivity Infrastructure
MBBL	Model Building Bye Laws
NBC	National Building Code
DGCA	Directorate General of Civil Aviation

Glossary

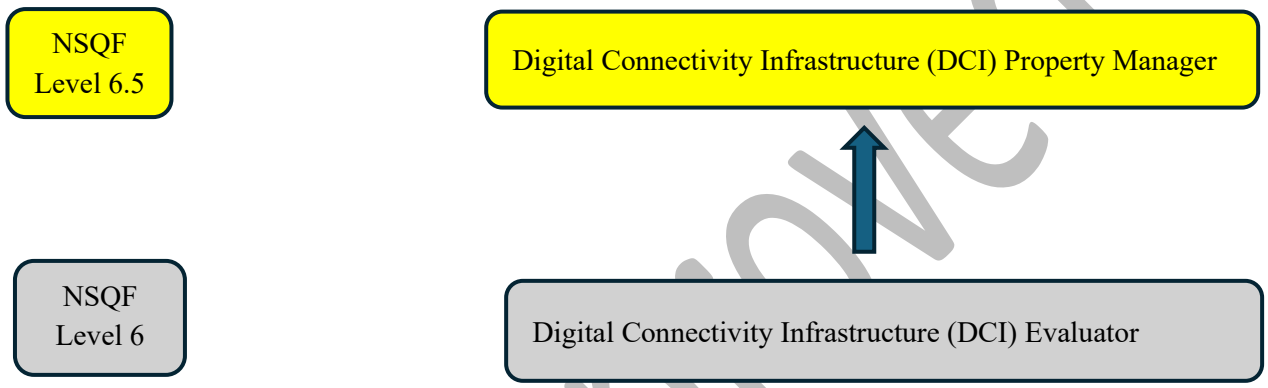
Term	Description
Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'

NSQC Approved

Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.

NSQC Approved

Annexure: Career Progression



NSQC Approved