

QUALIFICATION FILE

Surveyor

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☒ Upskilling ☐ Dual/Flexi Qualification ☒ For ToT ☒ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 5.5

Submitted By:

Construction Skill Development Council of India

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

Submitting Body Contact Details:

Name: Abhisek Prasad Mishra
Position in the Organization: Deputy Manager - Standards & Research
Address: Same as above
Tel number(s): 0124-4513915-18 Ext-23
E-mail address: abhisek@csdcindia.org

Table of Contents

Section 1: Basic Details	3
Section 2: Module Summary	6
NOS/s of Qualifications	6
Mandatory NOS/s:	6
Elective NOS/s:	8
Optional NOS/s:	8
Assessment - Minimum Qualifying Percentage	9
Section 3: Training Related.....	9
Section 4: Assessment Related	11
Section 5: Evidence of the need for the Qualification.....	12
Section 6: Annexure & Supporting Documents Checklist	12
Annexure: Evidence of Level	13
Annexure: Tools and Equipment (Lab Set-Up)	18
Annexure: Industry Validations Summary	21
Annexure: Training & Employment Details	25
Annexure: Blended Learning.....	26
Annexure: Detailed Assessment Criteria	27
Annexure: Assessment Strategy.....	47
Annexure: Acronym and Glossary.....	50
Annexure: Career Progression	52

Section 1: Basic Details

1.	Qualification Name	Surveyor													
2.	Sector/s	Construction													
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (QG-5.5-CO-03397-2024-V1.1-CSDCI, v 3.0)	Qualification Name of existing/previous version: Surveyor												
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	NA													
5.	National Qualification Register (NQR) Code &Version <i>(Will be issued after NSQC approval)</i>	QG-5.5-CO-03966-2025-V2-CSDCI & v 4.0	6. NCrF/NSQF Level: 5.5												
7.	Award (Certificate/Diploma/Advanced Diploma/ Any Other) <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate													
8.	Brief Description of the Qualification	A Surveyor is responsible for carrying out Construction Site Survey Work using modern and conventional systems by means of using instruments at construction sites. He collects, analyzes and manages the geographical data i.e. critical to planning and executing constructions													
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Completed 3rd year of 3-year/ 4-year UG (B.E. / B.Tech in Civil Engineering)</td> <td></td> </tr> <tr> <td>2.</td> <td>Completed 2-year diploma after 12th (in Civil Engineering)</td> <td>1-year relevant experience</td> </tr> <tr> <td>3.</td> <td>Completed 2nd year of 3-year UG (B.E. / B.Tech in Civil Engineering)</td> <td>1-year relevant experience</td> </tr> </tbody> </table>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	Completed 3rd year of 3-year/ 4-year UG (B.E. / B.Tech in Civil Engineering)		2.	Completed 2-year diploma after 12 th (in Civil Engineering)	1-year relevant experience	3.	Completed 2nd year of 3-year UG (B.E. / B.Tech in Civil Engineering)	1-year relevant experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)													
1.	Completed 3rd year of 3-year/ 4-year UG (B.E. / B.Tech in Civil Engineering)														
2.	Completed 2-year diploma after 12 th (in Civil Engineering)	1-year relevant experience													
3.	Completed 2nd year of 3-year UG (B.E. / B.Tech in Civil Engineering)	1-year relevant experience													

		4.	Completed 3-year diploma (after 10th) (in Civil Engineering)	2-year relevant experience			
		5.	12 th Grade pass	3-year relevant experience			
		b. Min. Job Entry Age: As per Govt. Norms					
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	20	11. Common Cost Norm Category (I/II/III) (wherever applicable): I				
12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA					
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	☒ Offline ☐ Online ☐ Blended					
		Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)
		Classroom (offline)	270	0	330		600
		Online					
		(Refer Blended Learning Annexure for details)					
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/2165.0200					
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Senior Surveyor					
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi					
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:					
18.	Is the Job Role Amenable to Persons with Disability	☐ Yes ☒ No					

		If “Yes”, specify applicable type of Disability:	
19.	How Participation of Women will be Encouraged	To encourage women to participate in Surveying job roles, it is important to provide education, mentorship, and networking opportunities, as well as training and development programs. Flexible work arrangements and promoting successful women in Surveying 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 Surveying job roles, through policies and practices that support work-life balance, equal pay and promotion opportunities, and a safe and respectful workplace.	
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	☒ Yes ☐ No CON/N9002	
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☐ Yes ☒ No Colleges ☒ Yes ☐ No	
22.	Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Abhisek Prasad Mishra Email: abhisek@csdcindia.org Contact No.: 0124-4513915-18 Ext-23 Website: www.csdcindia.org	
23.	On-File Approval Date by NSQC: 07-05-2025	24. Validity Duration: 3 Years	25. Next Review Date: 30-04-2028

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

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

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Carry out temporary adjustment of survey instruments as per standard methods	CON/N0903 & V 4.0	Core	5.5	3	30	-	60	-	90	30	70	-	-	100	15
2.	Conduct linear measurements using survey instruments and tools	CON/N0904 & V 4.0	Core	5.5	3	30	-	60	-	90	30	70	-	-	100	15
3.	Carry out levelling and cross sectioning survey	CON/N0905 & V 4.0	Core	5.5	3	30	-	60	-	90	30	70	-	-	100	15

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
4.	Carry out setting out operations for buildings/ other structures	CON/N0906 & V 4.0	Core	5.5	3	30	-	60	-	90	30	70	-	-	100	15
5.	Carry out topographic survey	CON/N0907 & V 4.0	Core	5.5	3	40	-	50	-	90	30	70	-	-	100	15
6.	Manage workplace for safe and healthy work environment	CON/N9002 & V 4.0	Core	5	1	10	-	20	-	30	30	70	-	-	100	10
7.	Supervise, monitor and evaluate performance of subordinates at workplace	CON/N8003 & V 4.0	Non-Core	5.5	1	10	-	20	-	30	30	70	-	-	100	10
8.	Employability Skills (90 Hours)	DGT/VSQ/N0103 & V 1.0	Non-Core	5	3	90	-	-	-	90	20	30	-	-	50	5
Duration (in Hours) / Total Marks					20	270	-	330	-	600	250	520	-	-	770	100

Elective NOS/s:

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

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core / Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Duration (in Hours) / Total Marks					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Optional NOS/s:

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

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core / Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Duration (in Hours) / Total Marks			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70% (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

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

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Minimum Educational Qualification	Specialization	Relevant Industry Experience		Preferable Training Experience	
				Years	Specialization	Years	Specialization
		B.E. / B.Tech	Civil Engineering	5	Construction Site Surveying	1	Construction Site Survey Work
		OR					
		Diploma	Civil Engineering	7	Construction Site Surveying)	1	Construction Site Survey Work
		OR					
		ITI	Relevant Trade	8	Construction Site Surveying	1	Construction Site Survey Work
		OR					
		Graduation	in any Stream	8	Construction Site Surveying	1	Construction Site Survey Work
		OR					
		Ex-Army Graduate	in any Stream	8	Construction Site Surveying	1	Construction Site Survey Work

2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	<table border="1"> <thead> <tr> <th rowspan="2">Minimum Educational Qualification</th> <th rowspan="2">Specialization</th> <th colspan="2">Relevant Industry Experience</th> <th colspan="2">Preferable Training Experience</th> </tr> <tr> <th>Years</th> <th>Specialization</th> <th>Years</th> <th>Specialization</th> </tr> </thead> <tbody> <tr> <td>B.E. / B.Tech</td> <td>Civil Engineering</td> <td>6</td> <td>Construction Site Surveying</td> <td>1</td> <td>Construction Site Survey Work</td> </tr> <tr> <td colspan="6">OR</td> </tr> <tr> <td>Diploma</td> <td>Civil Engineering</td> <td>8</td> <td>Construction Site Surveying</td> <td>1</td> <td>Construction Site Survey Work</td> </tr> <tr> <td colspan="6">OR</td> </tr> <tr> <td>ITI</td> <td>Relevant Trade</td> <td>10</td> <td>Construction Site Surveying</td> <td>1</td> <td>Construction Site Survey Work</td> </tr> <tr> <td colspan="6">OR</td> </tr> <tr> <td>Existing TOT certified Trainer in Skill Qualification</td> <td>Surveyor</td> <td>2</td> <td>Construction Site Surveying</td> <td>5</td> <td>Construction Site Survey Work</td> </tr> </tbody> </table>	Minimum Educational Qualification	Specialization	Relevant Industry Experience		Preferable Training Experience		Years	Specialization	Years	Specialization	B.E. / B.Tech	Civil Engineering	6	Construction Site Surveying	1	Construction Site Survey Work	OR						Diploma	Civil Engineering	8	Construction Site Surveying	1	Construction Site Survey Work	OR						ITI	Relevant Trade	10	Construction Site Surveying	1	Construction Site Survey Work	OR						Existing TOT certified Trainer in Skill Qualification	Surveyor	2	Construction Site Surveying	5	Construction Site Survey Work
		Minimum Educational Qualification			Specialization	Relevant Industry Experience		Preferable Training Experience																																														
			Years	Specialization		Years	Specialization																																															
		B.E. / B.Tech	Civil Engineering	6	Construction Site Surveying	1	Construction Site Survey Work																																															
		OR																																																				
		Diploma	Civil Engineering	8	Construction Site Surveying	1	Construction Site Survey Work																																															
		OR																																																				
		ITI	Relevant Trade	10	Construction Site Surveying	1	Construction Site Survey Work																																															
OR																																																						
Existing TOT certified Trainer in Skill Qualification	Surveyor	2	Construction Site Surveying	5	Construction Site Survey Work																																																	
3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)																																																				
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer																																																					

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	
				Years	Specialization
		B.E. / B.Tech	Civil Engineering	6	Construction Site Surveying
		OR			
		Diploma	Civil Engineering	8	Construction Site Surveying
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)			Relevant Technical Experience	
				Years	Specialization
		Graduation	In Relevant Stream	1	-
		OR			
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)			Relevant Industry Experience	
				Years	Specialization
		B.E. / B.Tech	Civil Engineering	10	Construction Site Surveying
		OR			
4.	Assessment Mode (Specify the assessment mode)	Diploma	Civil Engineering	13	Construction Site Surveying
		Online and Offline			

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

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 29
5.	Estimated nos. of persons to be trained and employed: 1,500 & 1,050
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: (If "No", why): No, Last Communication was on 09/04/2025

Section 6: Annexure & Supporting Documents Checklist

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	Yes
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Yes
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Yes
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Yes
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is "Blended Learning")</i>	No
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	No
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	Yes
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	Yes
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	Yes
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	Yes
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	Yes
12.	Any other document you wish to submit:	No

Annexure: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	• Process of temporary adjustment of survey instruments • Process of linear measurements with survey tools instruments and tools • Process of levelling and cross sectioning survey • Process of setting out operations for buildings/ other structures • Process of carrying out topographic survey • Process of planning, arranging and managing resources for execution of relevant work • Process of managing workplace for safe and healthy work environment	As detailed, the entire process followed by a Surveyor is to temporary adjustment of survey instruments, linear measurements with survey tools instruments and tools, levelling and cross sectioning survey, setting out operations for buildings/ other structures, carrying out topographic survey, planning, arranging and managing resources for execution of relevant work, managing workplace for safe and healthy work environment, etc. As the work is routine and is repeated multiple times, the work becomes predictable. As the Surveyor are required to perform the task as per the required codes and standards following the method statement available for the task, they have a clear work situation.	5.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Know the standard practices for surveying works • Understand the safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms • Understand the basic concepts of temporary and permanent adjustments, its purpose and importance	The knowledge required for an Surveyor is factual, as it is specific and limited to the knowledge of standard practices for surveying works, safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant work, basic concepts of temporary and permanent adjustments, its purpose and importance, types of errors in surveying instruments, checking the serviceability of various tools and tackles, procedure for conducting linier measurements on site, standard procedure for conducting liner measurements with total station, standard procedure for conducting	5.5

	• Know the types of errors in surveying instruments • Know how to check the serviceability of various tools and tackles • Know the procedure for conducting linier measurements on site • Understand the standard procedure for conducting liner measurements with total station • Understand the standard procedure for conducting leveling works • Know how to transfer data from instrument to computer • Know the setting out techniques • Understand the method and sequence of setting out of the building profile on the ground • Know the different methods of conducting topographic survey	leveling works, transferring data from instrument to computer, setting out techniques, method and sequence of setting out of the building profile on the ground, different methods of conducting topographic survey, etc. Therefore, their knowledge is applicable to their field of work only.	
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Locate the station mark on the ground surface • Place the tripod over the station mark and Fix the instrument on the tripod head • Level the instrument by adjusting the legs of the tripod and perform the centering of the instrument over the station mark using a plumb bob, optical plummet, or laser pointer as applicable • Adjust the levels of the horizontal and vertical axis of the instrument using	As indicated the skill set is required to interpret details from locate the station mark on the ground surface, place the tripod over the station mark and fix the instrument on the tripod head, level the instrument by adjusting the legs of the tripod and perform the centering of the instrument over the station mark using a plumb bob, optical plummet, or laser pointer as applicable, adjust the levels of the horizontal and vertical axis of the instrument using standard references such as bubble tubes, spirit levels, and adjustable screws, interpret site drawings, layout plans, and boundary maps to locate the station mark on the ground surface, estimate the optimal length of	5.5

	standard references such as bubble tubes, spirit levels, and adjustable screws • Interpret site drawings, layout plans, and boundary maps to locate the station mark on the ground surface • Estimate the optimal length of chain required for measuring the desired distance and select suitable tools, instruments, and marking materials • Fix pegs at all station points of the survey • Record the measured distances or chainages for respective points using proper symbols in the field book, following standard practice • Identify the location of staff point for measuring the horizontal distance as per the drawings or co-ordinates • Input the data regarding survey job, station point, type of measurement, RL of benchmark etc. As required by the instrument • Identify the standard procedure to obtain readings at multiple staff points at fixed interval • Identify all the grid lines /numbers provided on the plans/drawings and establish them on the ground using string (line dori) and pegs • Set out right angle to the building line from the identified corner point using ts, theodolite or triangulation principals	chain required for measuring the desired distance and select suitable tools, instruments, and marking materials fix pegs at all station points of the survey, record the measured distances or chainages for respective points using proper symbols in the field book, following standard practice, identify the location of staff point for measuring the horizontal distance as per the drawings or co-ordinates, input the data regarding survey job, station point, type of measurement, RL of benchmark etc. as required by the instrument, identify the standard procedure to obtain readings at multiple staff points at fixed interval, identify all the grid lines /numbers provided on the plans/drawings and establish them on the ground using string (line dori) and pegs, set out right angle to the building line from the identified corner point using TS, theodolite or triangulation principals, take the back sight from instrument point to BM and set the readings as zero for this point, plot the recorded points using the CAD software to get the required contour/ topographic map as per the measured distance, location, levels and angles, etc.	
--	---	--	--

	- Take the back sight from instrument point to bm and set the readings as zero for this point - Plot the recorded points using the cad software to get the required contour/ topographic map as per the measured distance, location, levels and angles		
Broad Learning Outcomes/Core Skill	- Carry out temporary adjustments of the survey instruments as per standard methods - Conduct linear measurements using survey instruments and tools - Carry out leveling and cross sectioning survey - Carry out setting out for buildings/ other structures - Carry out topographic survey - Plan and organize work in order to meet expected outcome - Maintain a healthy & safe working environment for the group of people working under an individual	The job holder is expected to carry out temporary adjustments of the survey instruments as per standard methods, conduct linear measurements using survey instruments and tools, carry out leveling and cross sectioning survey, carry out setting out for buildings/ other structures, carry out topographic survey, plan and organize work in order to meet expected outcome, maintain a healthy & safe working environment for the group of people working under an individual.	5.5
Responsibility	The individual in this job role will be responsible for the below-mentioned activities: Carry out initial set up, centering and levelling of survey equipment (levels, theodolite, total station etc.)	A Surveyor is responsible for carrying out Construction Site Survey Work using modern and conventional systems and instruments at construction sites.	5.5

	● Conduct linear measurements using chain and measuring tape for measurement in plans and slopes ● Conduct linear measurement using total stations ● Carry out leveling and cross section survey using total station ● Perform preparatory activities prior to setting out ● Carry out setting out operations ● Carry out topographic survey ● Prepare contour and topographic map ● Plan and prepare for work ● Arrange and manage manpower ● Arrange allocate and manage tools, material and equipment for completion of work, as per the plan ● Ensure effective implementation of health, safety and environment policies and procedures ● Identify and respond to risks / fire and emergencies associated with the work practices and workplace ● Ensure sanitization and infection control guidelines are followed at construction site		
--	---	--	--

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30 Candidates

S. No.	Tool / Equipment Name	Specification	Quantity for Specified Batch Size
1.	Pegs	Number	15
2.	Setting Out Boards	Number	6
3.	Total Station	Number	1
4.	Auto Level	Number	2
5.	Dumpy Level	Number	2
6.	Measuring Staffs	Number	6
7.	Engineers Chain	Number	3
8.	Measuring Tape-5m	Number	10
9.	Transit Level	Number	1
10.	Theodolite	Number	1
11.	Tripods	Number	6
12.	Plumb Bob	Number	6
13.	Optical Plummet	Number	1

14.	Laser Pointer	Number	6
15.	Arrows	Number	30
16.	Ranging Rods	Number	30
17.	Safety Helmet	Number	30
18.	Safety Goggles	Number	30
19.	Safety Shoes	Pair	30
20.	Cotton Gloves	Number	30
21.	Ear Plugs	Number	30
22.	Dust Mask	Number	30
23.	Fire Prevention Kit	Number	3
24.	Leather Hand Gloves	Number	30
25.	Jump Suit	Number	15
26.	Wire Brush	Number	10
27.	Hand & Leg Guard Leather	Number	30
28.	Sand Buckets	Number	5
29.	Flashback Arrestor	Number	10

30.	Safety Helmet	Number	30
31.	Welding Glass	Number	15
32.	Fire Extinguisher	Number	2
33.	First Aid Box	Number	2
34.	Safety Tags	Number	10
35.	Safety Notice Board	Number	5
36.	surveyor's compass	Number	6

Classroom Aids

The aids required to conduct sessions in the classroom are:

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

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in the table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Larsen and Toubro Ltd	J Raguraman	Head, CSTD	PB No 979, Mount Poonamallee Road, Manapakkam, Chennai, 600089	9943247482	jraguraman@Intecc.com	
2	National Academy of Construction	M Indra Kiran	Director	Near SS Convention Center, Labbipet, Vijayawada, Andhra Pradesh, PIN: 520010	984947 0249	nacaptrainings@gmail.com	
3	Consulting Infra Engineers	Saurbh Balyani	Founder	Rohini-Delhi	8826909092	info.caddcrafter@gmail.com	
4	Gabnut Engineer & Consultants LLP	Bhupinder Singh	Sr. Design Engineer	Arya Samaj Rd, Neelpur, Rajpura, Punjab 140401	7009947727	bsrajput077@gmail.com	
5	Indian Institute of Infrastructure and Construction	Prof. (Dr.) B. Sunil Kumar	Director, IIIC	Near Chavara Bridge, AMC, Puthanthura Post, Neendakara - 69L582, Kollam. Kerala	9895013924	director@iiic.ac.in	
6	JK Cement Ltd	Ashish Singh	General Manager	Kamla Tower, Kanpur Nagar, UP, 208001	9468837057	ashish.singh1@jkcement.com	

7	Kamac Engineers Pvt Ltd	Yudhajit Saha	Manager – Contracts & Planning	Ramkrishna Samity Building, Panitanki More, 40/107, Sevoke Rd, Ward 11, Near Pani Tanki More (Clock Tower), Siliguri, West Bengal 734001	8240040261	planning@kamac.in	
8	One Naga Construction Private Limited	Tunito Alex Zhimomi	CEO	DR.N. Theuno; Bayavu; Near N.B.S Office Area; Kohima; Kohima; Nagaland; 797001; India	7005715093	alexzim881@gmail.com	
9	OP Jindal Community College	Om Prakash Verma	Principal	O P Jindal Industrial Park, Tumidih, Chhattisgarh 496107		omprakash.verma@opjccraigarh.edu.in	
10	Poddar Infratech Pvt Ltd	Ms. Neha Devgan	Contracts Manager	202, Crowne Heights, Sector 10, Rohini, New Delhi	8449521881	letters@poddarinfra.com	
11	Santi Nath Basak	Sandip Mandal	Sr. Project Engineer	Bankadaha, Bankura, West Bengal-722164	6295834148	smandal014@gmail.com	
12	Solidstone Constructions	Pragadeeshwaran R J	Principal Designer & Chief Execution (Civil)	7/2 Perumal Nagar, No4 Veerapandi, CBE – 19	7904788630	solidstone.projects@gmail.com	linkedin.com/in/pragadeeshwaran-r-j-6baab7193
13	Star Projects Services Pvt Ltd	H. Asgar	9811376288	K-108 A, First Floor, Above JD Saloon, Thokar No. 5, Abul Fazal Enclave Part –I, Jamia Nagar, Okhla, N. Delhi 25	9811376288	starprojectsservices@gmail.com	

14	Uralungal Labour Contract Co-operative Society	Prem Anand C	Deputy Manager, Learning & Development	Madappally College, Vadakara, 673102 Kozhikode - 673102. Kerala, India	8921763984	prem.anand@ulccs.com	
15	AK Consulting	Nirman Jain	Technical Head	6th Cross Rd, 1st Stage, Kadugondanahalli, Bengaluru, Karnataka 560045	7042447336	nirmanjain777@gmail.com	
16	Artificial Intelligence Technologies Ltd	Rohit Kumar Sharma	Sr. Developer	A-21 Kailash Colony, New Delhi – 110048	9927564461	rohit.sharma@aituniversity.com	
17	Asirbadh Projects and Infrastructure Limited	Kunwar Jee	GM (Projects)	A.G. Office Road, Doanda, Ranchi-834002, Jharkhand.	7858801901	ahplmd@yahoo.com	
18	Donge Project Management Consultants Pvt. Ltd.	Balkrishna Kulkarni	President	401, Imperial Heights, Akshar Chowk, OP Road, Vadodara	9819657656	balkrishna.kulkarni@dongrepmc.com	
19	Ephicacy Lifescience Analytics	Rahul Kumar Kaushik	Sr. Manager	2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka 560076	8859885973	rahul.Kaushik@ephicacy.com	
20	Freelance Architect (Individual Consultant)	Garvit Sharma	Architect	A-101 Radha Krishna Lane, Kaushambi, Ghaziabad, U.P	9971967901	grsharma97@gmail.com	
21	Institute of Management Technology	Sandeep Sharma	Chief Project Engineer & Senior Counsellor	Raj Nagar, Ghaziabad, UP, 201001	9810566031	sharma.sandyk@gmail.com	

22	Know How Schools	Dipesh Bafna	Partner	Know How Schools LLP, C 601, Royal Casa, Ravet, Pune, 412101	9405266123	learn@knowhowschools.com	
23	L& T Skill Trainers Academy	DK Sharma	Principal - CSTI	Larsen & Toubro Ltd. Near Custom House, Versova Creek Madh Jetty, Madh, Mumbai, 400061	7660986699	deepaks@Intecc.com	
24	LK Engicons	Sameer	Owner	114, Bhawanpur, Meerut, UP, 250001	9808170639	sales@lkengicons.com	
25	Manpower Group Services India	Durgesh Begariya	Head Branch Operations	Unit-4 A/1 and A/2, 4th Floor, Plot No. 6, Uppal Plaza, Jasola, New Delhi	9824054165	durgesh.b@manpower.co.in	
26	Senryaku Management Private Limited	Udit Kumar	Consultant	UTC031, DLF The Ultima, Sector 81, Gurugram, HR 122004	9690909024	udit.kau@gmail.com	
27	Shrikant Gajanan Mhatre -Consulting Engineer & Valuer	Shrikant Gajanan Mhatre	Consulting Engineer & Valuer	Reg. No. CCRDP / R / 2022 / APL/ 00305 Approved Valuer No. -LM / CAT - I/ F - 4860, C P No. -180. SHIV NIWAS / Sagar Society, Private High School Road I Pen -Raigad - Maharashtra -India . 402 107.	9689728209	sshri1000@gmail.com	
28	Sunbright Manpower Solutions Pvt. Ltd	Arun Kumar	Supervisor	Shop No. 3144, Main Road, Narasapura, Kolar Taluk, Bangalore, Karnataka, 563133	7338463588	bangalore@sunbrightgroup.com	

29	ATS Homekraft	Bhumit Kamboj	General Manager, Program	ATS HomeKraft, 4th Floor, ATS Tower, Plot no-16, Sector-135, Noida- 201305	9873951040	bhumit.kamboj@ho mekraft.in	
----	---------------	---------------	-----------------------------	---	------------	--------------------------------	--

Annexure: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025-26	300	210	60	42	Subject to the requirement of the Industry	Subject to the requirement of the Industry
2026-27	500	350	100	70	Subject to the requirement of the Industry	Subject to the requirement of the Industry
2027-28	700	490	140	98	Subject to the requirement of the Industry	Subject to the requirement of the Industry

Data to be provided year-wise for next 3 years

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

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
v2.0	2022-23	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
v2.0	2023-24	170	19	3	3	NA	NA	NA	NA	NA	NA	NA	NA
v2.0	2024-25	147	28	28	28	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. CMYKY
2. DDUGKY
3. NULM
4. PBSSD
5. PMKUVA
6. PMKVY 2.0
7. UKSDM

Content availability for previous versions of qualifications:

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

Languages in which Content is available: English

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET “Guidelines for Blended Learning for Vocational Education, Training & Skilling” available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skillling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	☐ Theory/ Lectures - Imparting theoretical and conceptual knowledge		
2	☐ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
3	☐ Showing Practical Demonstrations to the learners		
4	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		
5	☐ Tutorials/ Assignments/ Drill/ Practice		
6	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	☐ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training		

Annexure: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Carry out temporary adjustment of survey instruments as per standard methods	<i>Carry out initial set up, centering and levelling of survey equipment (levels, theodolite, total station etc.)</i>	30	70		
	PC1. locate the station mark on the ground surface				
	PC2. place the tripod over the station mark				
	PC3. fix the instrument on the tripod head				
	PC4. level the instrument by adjusting the legs of tripod				
	PC5. ensure that the legs of tripod are sufficient distance apart and are pressed firmly on the ground to provide stability to the instrument				
	PC6. ensure that the height of instrument is such that it is convenient to take readings				
	PC7. perform the centering of the instrument over the station mark by using plumb bob, optical plummet or laser pointer as per applicability				

	PC8. adjust the levels of horizontal and vertical axis of the instruments using standard references/indicators such as bubble tubes, spirit level and adjustable screws as per standard practices.				
	PC9. focus the telescope on the concerned object or point for clear visibility, by adjusting the eye- piece/ knobs/screw and cross-hair				
NOS Total		30	70		

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Conduct linear measurements using survey instruments and tools	<i>Conduct linear measurements using chain and measuring tape for measurement in plans and slopes</i>	15	35		
	PC1. interpret site drawings, layout plans, and boundary maps etc				
	PC2. estimate the optimal length of chain required for measuring the required distance				
	PC3. select suitable tools, instruments and marking materials for conducting required work				
	PC4. identify the start point/ benchmark				

	for measurement as per work requirement				
	PC5. monitor subordinates to ensure that the unfolding of the chain or tape is as per standard practice				
	PC6. check that the subordinates have collected appropriate tools such as arrows, pegs etc. in required number				
	PC7. check that the ranging rods are vertical and of appropriate length to avoid any errors in ranging				
	PC8. ensure that the chain or tape is stretched appropriately to avoid any errors due to sagging of the same				
	PC9. coordinate between leader and follower to maintain straight line of measurement and proper placement of flags or pegs				
	PC10. ensure that the peg is fixed at all station points of the survey				
	PC11. record the chainages or measured distance for respective points using proper symbols in the field book, as per standard practice				
	PC12. instruct subordinates to use appropriate tools for transferring points on ground/ slopes				

	<i>Conduct linear measurement using total stations</i>	15	35		
	PC13. identify the location of master and secondary control points to set up the instrument				
	PC14. identify the suitable benchmark as a reference to obtain a back-sight at station point				
	PC15. locate the exact position of the instrument with respect to the back-sight and foresight points				
	PC16. set up the instrument exactly over the station point				
	PC17. carry out temporary adjustments of the instrument				
	PC18. input various data/parameters as per job details, locations and technical specifications				
	PC19. identify the location of staff point for measuring the horizontal distance as per the drawings or co-ordinates				
	PC20. instruct the subordinate to hold the staff exactly at the staff point				
	PC21. operate the total station instrument to compute and record the required data				

	PC22. remove the data card from the instrument and transfer the same into compatible computer				
NOS Total		30	70		

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Carry out leveling and cross sectioning survey	<i>Carry out leveling and cross section survey using total station</i>	30	70		
	PC1. interpret the scope of survey and data to be collected				
	PC2. identify and locate the first station point to set up the instrument				
	PC3. identify and locate the benchmark on the field as instructed by the surveyor				
	PC4. setup the instrument exactly over the station point				
	PC5. carry out temporary adjustments of the instrument				
	PC6. input data regarding temperature and pressure bars into the total station				
	PC7. input the data regarding survey job, station point, type of measurement, RL of benchmark etc. as				

	required by the instrument				
	PC8. instruct the subordinate to hold the reflective staff exactly over the benchmark of known elevation				
	PC9. bisect the reflective prism mounted on the staff with the help of tangent screw and fine tune screw				
	PC10. bisect the prism using the input panel on the total station to compute the reduced level at the station point from the RL earlier fed in the instrument using the telescope				
	PC11. identify the direction and position of the terminal point/ station and place the staff				
	PC12. obtain the RL(reduced level) of the staff point by bisecting the reflective prism and instructing the instrument to calculate the RL				
	PC13. follow the standard procedure to obtain readings at multiple staff points at fixed interval				
	PC14. transfer the instrument to the next point as per requirement and take a back sight reading at the previous intermediate point or staff point				

	PC15. take staff readings at fixed interval on multiple points normal to the center line on both sides				
	PC16. check the display of the instrument to confirm that data displayed is as per requirement				
	PC17. remove the data card from the instrument and transfer the same into compatible computer				
NOS Total		30	70		

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Carry out setting out operations for buildings/ other structures	<i>Perform preparatory activities prior to setting out</i>	15	30		
	PC1. obtain work instructions, plans, specifications, quality requirements and operational details				
	PC2. plan the sequence to be adopted for setting out works				
	PC3. check the serviceability of the required tools and instruments and report any errors/ faults to the seniors				
	PC4. estimate the required materials and ensure that they comply with work				

	requirements				
	<i>Carry out setting out operations</i>				
	PC5. locate and identify the survey pegs or control point and mark the boundary lines				
	PC6. calculate the distance and direction of building line from the boundary or base line as per plans/drawings				
	PC7. carry out liner and angular measurements to locate the building line on field from the boundary or baseline				
	PC8. identify all the grid lines /numbers provided on the plans/drawings and establish them on the ground using string (line dori) and pegs	15	40		
	PC9. conduct the erection/construction of profile/hurdles/platform at the both ends of grid lines and mark them as per their grid numbers				
	PC10. determine the corner of building on set building line to true measurement from adjacent boundary and mark the same as per drawings and specifications				

	PC11. set out right angle to the building line from the identified corner point using TS, theodolite or triangulation principals				
	PC12. recheck all the measurements accurately using TS or triangulation methods and confirm the same with drawings				
NOS Total		30	70	-	-

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Carry out topographic survey	<i>Carry out topographic survey</i>	15	35		
	PC1. identify the boundaries of the area to be surveyed				
	PC2. establish control points/bench marks to initiate the survey				
	PC3. identify a suitable location for setting up a total station such that maximum points or features are visible from this point				
	PC4. set up the instrument at identified point and perform necessary adjustments				

	PC5. take the back sight from instrument point to BM and set the readings as zero for this point				
	PC6. instruct the subordinate to place the staff at all relevant feature points like corners of buildings, trees, pillars etc				
	PC7. operate the survey instrument to focus on the staff and record the required readings for the fore sights/intermediate sight as per the requirement				
	PC8. coordinate with team members to change the instrument placing and repeat the same procedure for taking further reading				
	PC9. transfer/upload the recorded data on the computer system using appropriate CAD software				
	<i>Prepare contour and topographic map</i>				
	PC10. obtain approval from seniors regarding correctness of the collected data	15	35		
	PC11. segregate the required information in desired formats using available software				

	PC12. decide the scale for plotting the survey data				
	PC13. plot the recorded points using the CAD software to get the required contour/ topographic map as per the measured distance, location, levels and angles				
	PC14. confirm that the coordinates of all the plotted points are as per the survey data				
	PC15. obtain approval from senior for confirming the correctness of the map				
	PC16. store and save the map as per organizational norms				
	NOS Total	30	70		

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Manage workplace for safe and healthy work environment	<i>Ensure effective implementation of health, safety and environment policies and procedures</i>	15	40		
	PC1. implement safe handling and stacking methods at workplace /store				
	PC2. ensure the adequate availability and placing of safety and protection installations at site				
	PC3. ensure that safe access ways are				

	available at work place for movement of workers and materials				
	PC4. ensure the safe use of tools and tackles by teammates as per work requirements				
	PC5. ensure ergonomic principles are adopted by the teammates while lifting and shifting of construction materials, tools and equipment				
	PC6. ensure appropriate use of following Personal Protective Equipment (PPE) as per work requirement of head protection, ear protection, fall protection, foot protection, face and eye protection, hand and body protection, respiratory protection				
	PC7. maintain entry and exit pathways from confined spaces, excavated pits and other location as per safety parameters/instructions				
	PC8. ensure proper housekeeping at workplace				
	PC9. ensure that subordinates adhere to health and safety plans				
	<i>Identify and respond to risks / fire and emergencies associated with the work practices and workplace</i>				
	PC10. identify any hazard at workplace and report/notify the same to appropriate authorities.	10	20		
	PC11. follow procedures for accident recording and reporting as per				

	organizational and statutory requirements				
	PC12. ensure effective adherence to emergency response procedures / protocols				
	PC13. select and operate different types of fire extinguishers corresponding to types of fires as per EHS guideline				
	PC14. obtain 'height pass' clearance as per EHS guideline				
	PC15. implement control measures to reduce risks, meeting legislative requirements within the scope of own role and expertise, as per organizational policies				
	<i>Ensure sanitization and infection control guidelines are followed at construction site</i>				
	PC16. promote awareness about latest hygiene and sanitation regulations				
	PC17. ensure disinfection procedure related to material, tools and supplies are followed properly				
	PC18. respond to infection prevention and control and its non-compliance , within scope of own role or report to required personnel				
	NOS Total	30	70		

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Supervise, monitor and evaluate performance of subordinates at workplace	<i>Monitor and evaluate subordinate's performance as per quality standards and timelines</i>	20	40		
	PC1. fix expected targets for the respective gang as per site requirements and allocate work to subordinates				
	PC2. establish expected performance standards and expectations for the respective gang of workers to meet the desired outcomes				
	PC3. inspect assigned work to the respected gang of workers through progressive checking				
	PC4. observe and verify the work activities performed by the subordinates at the construction site				
	PC5. monitor overall performance of subordinates on the designed measures to ensure quality requirements set by the concerned authority				
	PC6. ensure adherence to the organizational policies and procedures for all relevant construction activities by the workmen subordinations				

	<i>Practice and promote gender inclusive behavior and leadership</i>	10	30		
	PC7. promote a safe, supportive, inclusive and gender sensitive environment at workplace.				
	PC8. manage and facilitate capacity building to enable inclusion of all genders				
	PC9. take prompt corrective action in case of inappropriate behavior at workplace				
NOS Total		30	70		

NOS/Module Name	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Employability Skills (90 Hours)	<i>Introduction to Employability Skills</i>	1	1		
	PC1. understand the significance of employability skills in meeting the current job market requirement and future of work				
	PC2. identify and explore learning and employability relevant portals				
	PC3. research about the different industries, job market trends, latest skills required and the available opportunities				

	<i>Constitutional values – Citizenship</i>				
	PC4. 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		
	PC5. follow environmentally sustainable practices				
	<i>Becoming a Professional in the 21st Century</i>				
	PC6. recognize the significance of 21st Century Skills for employment				
	PC7. practice the 21st Century Skills such as Self- Awareness, Behaviour 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	1	3		
	PC8. adopt a continuous learning mindset for personal and professional development				
	<i>Basic English Skills</i>				
	PC9. use basic English for everyday conversation in different contexts, in person and over the telephone	3	4		
	PC10. read and understand routine information, notes, instructions,				

	mails, letters etc. written in English				
	PC11. write short messages, notes, letters, e-mails etc. in English				
	<i>Career Development & Goal Setting</i>	1	2		
	PC12. identify career goals based on the skills, interests, knowledge, and personal attributes				
	PC13. prepare a career development plan with short- and long-term goals				
	<i>Communication Skills</i>				
	PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings				
	PC15. use active listening techniques for effective communication	2	2		
	PC16. communicate in writing using appropriate style and format based on formal or informal requirements				
	PC17. work collaboratively with others in a team				
	<i>Diversity & Inclusion</i>				
	PC18. communicate and behave appropriately with all genders and PwD	1	1		
	PC19. escalate any issues related to sexual harassment at workplace according to POSH Act				
	<i>Financial and Legal Literacy</i>	2	3		

	PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.				
	PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook				
	PC22. identify common components of salary and compute income, expenses, taxes, investments etc				
	PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation				
	<i>Essential Digital Skills</i>	3	5		
	PC24. operate digital devices and use their features and applications securely and safely				
	PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.				
	PC26. display responsible online behaviour while using various social media platforms				
	PC27. create a personal email account, send and process received messages as per requirement				
	PC28. carry out basic procedures in				

	documents, spreadsheets and presentations using respective and appropriate applications				
	PC29. utilize virtual collaboration tools to work effectively				
	<i>Entrepreneurship</i>				
	PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research				
	PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	2	3		
	PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity				
	<i>Customer Service</i>				
	PC33. identify different types of customers and ways to communicate with them				
	PC34. identify and respond to customer requests and needs in a professional manner	1	2		
	PC35. use appropriate tools to collect customer feedback				
	PC36. follow appropriate hygiene and grooming standards				
	<i>Getting ready for apprenticeship & Jobs</i>	2	3		

	PC37. create a professional Curriculum vitae (Resume)				
	PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively				
	PC39. apply to identified job openings using offline /online methods as per requirement				
	PC40. answer questions politely, with clarity and confidence, during recruitment and selection				
	PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements				
NOS Total		20	30		

Annexure: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. Assessment system Overview:

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

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

The assessment plan contains the following information:

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

2. Testing Environment:

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

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

3. Mode of assessment:

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

4. Performance/skill assessment:

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

5. Knowledge Assessment:

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

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

6. Assessment Quality Assurance framework:

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

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

7. Methods of Validation:

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

8. Method of assessment documentation and access:

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

9. On the Job:

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

Annexure: Acronym and Glossary

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

EHS	Environment Health and Safety
PPE	Personal Protective Equipment
QA/QC	Quality Assurance / Quality Control
TS	Total Station
GPS	Global Positioning System
DGPS	Differential Global Positioning System
GNSS	Global Navigation Satellite System
GIS	Geographic Information System
RS	Remote Sensing
UAV	Unmanned Aerial Vehicle (Drone Surveying)
LDR	Light Detection and Ranging
DEM	Digital Elevation Model
DTM	Digital Terrain Model
DSM	Digital Surface Model
GCP	Ground Control Point
HFL	Land Use and Land Cover
TBM	High Flood Level (Hydrographic Survey)
BM	Bench Mark
FS	Foresight (in leveling)
BS	Backsight (in leveling)
IS	Intermediate Sight (in leveling)
NTS	National Topographic Series (Survey Maps)
RL	Reduced Level
LOS	Line of Sight
CL	Center Line (Road Survey)
ROW	Right of Way (Land Acquisition)
KML	Keyhole Markup Language (GIS & Mapping)
CAD	Computer-Aided Design
BIM	Building Information Modeling
DLR	Digital Land Record
ROR	Record of Rights
FMB	Field Measurement Book
RSR	Revenue Survey Record

LPM	Land Parcel Mapping
GTS	Great Trigonometrical Survey
MSL	Mean Sea Level
NWL	Normal Water Level
SPM	Single Point Mooring (Hydrographic Survey)
EIA	Environmental Impact Assessment

Glossary

Term	Description
National Occupational Standards (NOS)	NOS defines the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf

Annexure: Career Progression

