

QUALIFICATION FILE

Helper-Underground Mines

☒ 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: 2

Submitted By:

Skill Council for Mining Sector (SCMS)

FIMI House, B-311,

Okhla Industrial, Phase-1

New Delhi-110020

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Section 1: Basic Details

1.	Qualification Name	Helper-Underground Mines										
2.	Sector/s	Mining										
3.	Type of Qualification: ☐ New ☒ Revised ☒ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: QG-02-MG-01863-2024-V1.1-SCMS & Version 2.0	Qualification Name of existing/previous version: Assistant-Underground Mines									
4.	a. OEM Name b. Qualification Name (Wherever applicable)	Not Applicable										
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-02-MG-04067-2025-V2-SCMS & Version 3.0	6. NCrf/NSQF Level: 2									
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Not Applicable										
8.	Brief Description of the Qualification	The Helper in an Underground Mine assists the Operator/ Fitter/ Technician in handling material, pre-operational checks, servicing Heavy Earth Moving Machinery (HEMM), shifting and operation of underground machines, and installation and maintenance of electrical systems and equipment.										
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>No formal education prescribed (No experience)</td> <td>-</td> </tr> <tr> <td>2.</td> <td>Previous relevant Qualification of NSQF Level (1):Kamgar (Mining)</td> <td>-</td> </tr> </tbody> </table> b. Age: 20 Years		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	No formal education prescribed (No experience)	-	2.	Previous relevant Qualification of NSQF Level (1):Kamgar (Mining)	-
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1.	No formal education prescribed (No experience)	-										
2.	Previous relevant Qualification of NSQF Level (1):Kamgar (Mining)	-										
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrf))	8 (Compulsory Modules + 1 Elective) ; Additional 1 Credit for each optional module	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 (<i>Specify Total Duration as per selected training delivery modes and as per requirement of the qualification</i>)	☒ Offline ☐ Online ☐ Blended <table border="1" data-bbox="952 188 2051 411"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>70:00</td> <td>110:00</td> <td>-</td> <td>-</td> <td>180:00</td> </tr> <tr> <td>Online</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	70:00	110:00	-	-	180:00	Online	-	-	-	-	-
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Online	-	-	-	-	-																			
		<i>(Refer Blended Learning Annexure for details)</i>																						
14.	Aligned to NCO/ISCO Code/s (<i>if no code is available mention the same</i>)	NCO-2015/7233.1500, NCO-2015/7411.0200																						
15.	Progression path after attaining the qualification (<i>Please show Professional and Academic progression</i>)	NSQF Level 3.0 (Vertical)-Jack Hammer Operator, Mine Mechanic/Fitter, Mechanic-Belt-Conveyor, Grader Operator, Slurry Pump Operator (Mines), Mechanic-Fitter (Mineral Sands), Drill Operator {Down-the-hole/Long Hole (DTH/LH)}																						
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	By creating awareness in women and training them																						
20.	Are Greening/ Environment Sustainability Aspects Covered (<i>Specify the NOS/Module which covers it</i>)	☒ Yes ☐ No MIN/N1702, MIN/N1704																						
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 (<i>In case of CS or MS, provide details of both Lead AB & Supporting ABs</i>)	Name: Mr. Navneet Kumar Email : coo@skillcms.in, scms@skillcms.in Website : https://www.skillcms.in/ Contact No.: +91-11-26814593																						
23.	Final Approval Date by NSQC: 6 May 2025	24. Validity Duration: 3 Years			25. Next Review Date: 6 May 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 curriculum document.

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT - Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Handle material	MIN/N1101 & V2.0	Core	2	5	40:00	110:00	-	-	150:00	30	50	-	20	100	40
2.	Employability Skills (30 Hours)	DGT/VSQ/N 0101 & V1.0	Core	2	1	30:00	00:00	-	-	30:00	20	30	-	-	50	20
Duration (in Hours) / Total Marks						70:00	110:00	-	-	180:00	50	80	-	20	150	60

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT - Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Follow Health, Safety, and Environmental guidelines for Underground Metalliferous Mines	MIN/N1702, V3.0	Core	1	2	20:00	40:00	-	-	60:00	30	50	0	20	100	40
2.	Follow Health, Safety, and Environmental guidelines for underground coal mines	MIN/N1704, V3.0	Core	1	2	20:00	40:00	-	-	60:00	30	50	0	20	100	40
Duration (in Hours) / Total Marks						40:00	80:00	-	-	120:00	60	100	0	40	200	80

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCr F/N SQF 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.	Assist in Pre- Operational Checks and Servicing of machinery	MIN/N1102 & V2.0	Core	2	1	10:00	20:00	-	-	30:00	30	50	0	20	100	40
2.	Assist in shifting and operation of the underground machines	MIN/N1509 & V2.0	Core	2	1	10:00	20:00	-	-	30:00	30	50	0	20	100	40
3.	Assist in installation and maintenance of electrical systems and equipment	MIN/N1104 & V2.0	Core	2	1	10:00	20:00	-	-	30:00	30	50	0	20	100	40
Duration (in Hours) / Total Marks					3	30:00	60:00	-	-	90:00	90	150	0	60	300	120

Assessment - Minimum Qualifying Percentage

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

Minimum Pass Percentage – Aggregate at qualification level: 50% (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: Not Applicable% (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)	Class 8 th pass with 6 years of relevant experience required in Mining. OR ITI (Mechanical/Electrical) with 6 years of relevant experience required in Mining. OR Diploma (Mechanical/Electrical) with 5 years of relevant experience required in Mining. OR
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		B-Tech (Mechanical/Electrical/Mining) with 4 years of relevant experience required in Mining. AND Certified for Job role “Helper-Underground Mines” and Job Role “Trainer (VET and Skills)” with minimum accepted score of 80% in each.
2.	Master Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Class 8 th pass with 6 years of relevant experience required in Mining. OR ITI (Mechanical/Electrical) with 6 years of relevant experience required in Mining. OR Diploma (Mechanical/Electrical) with 5 years of relevant experience required in Mining. OR B-Tech (Mechanical/Electrical/Mining) with 4 years of Relevant experience required in Mining. AND Certified for Job role “Helper-Underground Mines” and Job Role “Trainer (VET and Skills)” with minimum accepted score of 90% in each.
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	None

Section 4: Assessment Related

1.	Assessor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Class 8 th pass with 8 years of relevant experience required in Mining. OR ITI (Mechanical/Electrical) with 8 years of relevant experience required in Mining. OR Diploma (Mechanical/Electrical) with 7 years of relevant experience required in Mining. OR B-Tech (Mechanical/Electrical/Mining) with 6 years of Relevant experience required in Mining. AND Certified for Job role “Helper-Underground Mines” and Job Role “Trainer (VET and Skills)” with minimum accepted score of 80% in each.
2.	Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Class 8 th pass with 6 years of relevant experience required in Mining. OR ITI (Mechanical/Electrical) with 6 years of relevant experience required in Mining. OR Diploma (Mechanical/Electrical) with 5 years of relevant experience required in Mining. OR B-Tech (Mechanical/Electrical/Mining) with 4 years of relevant experience required in Mining.

		AND Certified for Job role “Helper-Underground Mines” and Job Role “Trainer (VET and Skills)” with minimum accepted score of 80% in each.
3.	Lead Assessor’s/Proctor’s Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Class 8 th pass with 8 years of relevant experience required in Mining. OR ITI (Mechanical/Electrical) with 8 years of relevant experience required in Mining. OR Diploma (Mechanical/Electrical) with 7 years of relevant experience required in Mining. OR B-Tech (Mechanical/Electrical/Mining) with 6 years of Relevant experience required in Mining. AND Certified for Job role “Helper-Underground Mines” and Job Role “Trainer (VET and Skills)” with minimum accepted score of 90% in each.
4.	Assessment Mode <i>(Specify the assessment mode)</i>	Tablet based/ Online
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): No
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 21
5.	Estimated nos. of persons to be trained and employed: 400
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes If “No”, why:

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 <i>(Mandatory)</i>	Attached
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2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Attached
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Attached
4.	Annexure: Assessment Strategy (Mandatory)	Attached
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	Not Applicable
6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	Filled
7.	Annexure: Acronym and Glossary (Optional)	Filled
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	Attached
9.	Supporting Document: Career Progression (Mandatory - Public view)	Attached
10.	Supporting Document: Occupational Map (Mandatory)	Attached
11.	Supporting Document: Assessment SOP (Mandatory)	Attached
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	For the job role of Helper-Underground Mines at NSQF Level 2, professional theoretical knowledge focuses on understanding basic mining processes and safety protocols. The helper should know the fundamental tasks involved in assisting mining operations, such as material handling, equipment cleaning, and basic maintenance support. Awareness of workplace hazards, personal protective equipment (PPE) usage, and emergency response procedures is essential. The process knowledge includes following standard operating procedures (SOPs), supporting excavation and transportation activities, and maintaining a clean and organized work area. The key outcome of this	For the job role of Helper – Underground Mines at NSQF Level 2, the professional theoretical knowledge required aligns with basic factual understanding of tasks and processes in mining operations. The role involves assisting in excavation, material handling, and equipment maintenance under supervision. The individual must know the fundamental safety procedures, common tools used, and standard operating protocols. Their knowledge is limited to routine, repetitive tasks with minimal complexity, ensuring they follow set instructions and guidelines effectively. This aligns with NSQF Level 2 descriptors, which emphasize familiarity with structured	2

	qualification is to prepare individuals for entry-level support roles in opencast mining operations, ensuring they contribute effectively while following safety and operational guidelines.	procedures, basic workplace safety, and the ability to perform simple tasks efficiently under supervision.	
Professional and Technical Skills/ Expertise/ Professional Knowledge	For the job role of Helper- Underground Mines at NSQF Level 2, the key professional and technical skills required include basic knowledge of mining operations and the ability to assist in tasks such as material handling, equipment cleaning, and following safety protocols. The role demands an understanding of standard operating procedures, workplace hygiene, and the use of basic hand tools. Helpers must also be familiar with communication techniques to follow instructions accurately and report issues to supervisors. Additionally, awareness of health and safety regulations, including the proper use of personal protective equipment (PPE), is crucial. The role requires physical stamina, teamwork, and a commitment to maintaining a safe work environment.	For the job role of Helper – Underground Mines at NSQF Level 2, the professional and technical skills required are basic and routine in nature. The role primarily involves assisting in mining operations under supervision, performing tasks such as material handling, basic housekeeping of the work area, and following safety protocols. The individual is expected to use simple tools and equipment with minimal complexity and operate under clear instructions. The knowledge required includes understanding workplace procedures, safety guidelines, and basic operational processes. The job outcomes align with NSQF Level 2 descriptors by focusing on familiar and predictable tasks that require limited independent judgment and direct supervision.	2
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	For the job role of Helper- Underground Mines at NSQF Level 2, employment readiness and entrepreneurship skills focus on developing a strong work ethic, safety awareness, and adaptability to mine-site conditions. Workers should understand the importance of punctuality, teamwork, and following instructions accurately. Professional skills include effective communication with supervisors and peers, basic problem-solving to handle routine tasks, and maintaining tools and equipment efficiently. A proactive mindset, willingness to learn, and adherence to workplace safety regulations are crucial. Additionally, fostering an entrepreneurial approach can help individuals identify opportunities for personal growth within the mining sector, such as upskilling and exploring better job prospects.	The job role of Helper- Underground Mines at NSQF Level 2 aligns with the Employment Readiness & Entrepreneurship Skills & Mindset/Professional Skills by focusing on basic work-related competencies. Individuals at this level are expected to follow instructions, perform routine tasks under supervision, and demonstrate a disciplined approach to workplace responsibilities. They develop fundamental employability skills such as time management, teamwork, and adherence to safety regulations, which enhance their readiness for employment. Entrepreneurship skills are limited but include basic resource utilization and problem-solving within their scope of work. This role aligns with NSQF descriptors by emphasizing practical skills, responsibility for assigned tasks, and the ability to work under guidance.	2
Broad Learning Outcomes/Core Skill	The key requirements for the job role of Helper – Underground Mines at NSQF Level 2 focus on assisting mining operations efficiently and safely. The broad learning outcomes or core skills include understanding	The job role of a Helper in Underground Mines at NSQF Level 2 focuses on basic, routine tasks under supervision. The broad learning outcomes and core skills expected at this level include understanding and	2

	basic mining terminologies, assisting in handling tools and materials, and following safety protocols. The role requires physical stamina, the ability to follow instructions accurately, and teamwork to support mining operations. Basic communication skills are essential for reporting issues to supervisors. Awareness of health hazards and the use of protective equipment are crucial. The qualification aims to develop these foundational skills to ensure smooth operations and compliance with mining regulations.	following instructions, assisting in manual labor tasks, and ensuring safety compliance in mining operations. The helper should be able to perform simple operational activities such as material handling, equipment cleaning, and site preparation while adhering to health and safety guidelines. Their skills align with the NSQF Level 2 descriptor, which emphasizes carrying out repetitive, predictable tasks with minimal responsibility and decision-making, primarily requiring physical effort and basic communication skills to report issues and follow standard procedures.	
Responsibility	The role of a Helper in Underground Mines, categorized under NSQF Level 2, involves assisting mining operations by performing basic tasks that support the smooth functioning of mining activities. The key responsibilities include handling tools and materials, following safety guidelines, and assisting skilled workers in tasks such as excavation, drilling, and transportation of materials. The helper must ensure the work area is clean and free of hazards, follow instructions accurately, and report any issues to supervisors. Physical fitness, adherence to safety protocols, and teamwork are essential to perform efficiently. The role requires a basic understanding of mining processes and the ability to follow standard operating procedures under supervision.	For the job role of Helper - Underground Mines, which is classified at NSQF Level 2, the responsibility aspect focuses on performing assigned tasks under close supervision. The individual is expected to follow instructions from supervisors and assist skilled workers in basic operational activities like material handling, cleaning, and simple maintenance tasks. Their role requires adherence to safety guidelines, timely task completion, and supporting the mining team efficiently. They do not take independent decisions but are responsible for ensuring their assigned duties are carried out accurately. This aligns with the NSQF Level 2 descriptor, which emphasizes routine and repetitive tasks with limited responsibility and close supervision.	2

Annexure: Tools and Equipment (Lab Set-Up)

(It can change as per Industry needs)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1.	Posters for describing Underground mines	Standard	1
2.	Safety lamp	Standard	1

3.	Self-contained self-rescue device	Standard	1
4.	Diagram of Slurry pipeline	Standard	1
5.	Diagram of Spreader (mining)	Standard	1
6.	Stacker	Standard	1
7.	Stamp mill	Standard	1
8.	Photo analysis	Standard	1
9.	Drill floor	Standard	1
10.	Headboards	Standard	1
11.	Footplates	Standard	1
12.	Safety Helmet	Standard	15
13.	Cone setting tools	Standard	15
14.	Gloves	Standard	15
15.	Harness	Standard	15
16.	Earplugs	Standard	15
17.	Safety Goggles	Standard	15
18.	Nose mask	Standard	15
19.	Safety shoes	Standard	1
20.	Fire extinguisher	Standard	1
21.	Types of log book	Standard	1
22.	First Aid box	Standard	1
23.	MCDR	Standard	1
24.	MCR	Standard	1

25.	Diagrams showing quarries, Overhangs, Fencing, etc.	Standard	1
26.	Self-Contained Breathing Apparatus	Standard	1
27.	Gum boots	Standard	15
28.	Company's Safety Management Plan (SMP) and Emergency Management Plan (EMP)	Standard	1
29.	Engines of HEMM equipment (SDL/LHD & Dump-truck)	Standard	1
30.	Transmissions of HEMM equipment	Standard	1
31.	Tools & tackles for repairs	Standard	1
32.	Lathe machine	Standard	1
33.	Tyre equipment	Standard	1
34.	Diagram of Undercarriages of tracked equipment	Standard	1
35.	Allen Key set of 12 pieces	Standard	1
36.	Calliper inside 15 cm Spring	Standard	1
37.	Callipers outside 15 cm spring	Standard	1
38.	Centre Punch 10 mm. Dia. x 100 mm	Standard	1
39.	Electrician Screw Driver 250 mm	Standard	1
40.	Hammer ball peen 0.5 kg with handle	Standard	1
41.	Pliers combination 20 cm	Standard	1
42.	Screw driver 20cm.X 9mm. Blade	Standard	1
43.	Scriber 15 cm	Standard	1
44.	Spanner	Standard	1

45.	Ring set of 12 metric sizes 6 to 32 mm	Standard	1
46.	Spanner D.E. set of 12 pieces (6mm to 32mm)	Standard	1
47.	Spanners socket with speed handle	Standard	1
48.	T-bar	Standard	1
49.	Ratchet and universal upto 32	Standard	1
50.	Steel rule 30 cm inch and metric	Standard	1
51.	Steel tool box with lock and key (folding type) 400x200x150 mm	Standard	1
52.	Wire cutter and stripper	Standard	1
53.	Company's SOP	Standard	1
54.	Diagrams Armoured face conveyor	Standard	1
55.	CMR	Standard	1
56.	MMR	Standard	1
57.	MRR	Standard	1
58.	Posters for describing different types of mines	Standard	1
59.	Electrical Layouts	Standard	1
60.	Bus Bar	Standard	1
61.	MCCB	Standard	1
62.	China Clay Oil Filled Insulator	Standard	1
63.	Board Switch	Standard	1
64.	Power Supply Monitor Panel Board	Standard	1
65.	Megger	Standard	1

66.	Soldering Iron and Consumables	Standard	1
67.	Clamp Meter	Standard	1
68.	Digital Multi Meter	Standard	1
69.	Switchgear	Standard	1
70.	Screw Driver Set	Standard	1
71.	Neo Tester	Standard	1
72.	Combination Pliers	Standard	1
73.	Nose Pliers	Standard	1
74.	Spanner Set	Standard	1
75.	Adjustable Wrench	Standard	1
76.	Pipe Wrench	Standard	1
77.	Measuring Tape	Standard	1
78.	Hack Saw	Standard	1
79.	Hammer	Standard	1
80.	Chisel	Standard	1
81.	Files Set	Standard	1
82.	Wood Saw	Standard	1
83.	Portable Drill Machin	Standard	1
84.	Bench-Vice & Line-Vice	Standard	1
85.	Modal of sub-station for illustration purpose	Standard	1
86.	Single phase transformer 2 KVA	Standard	1

87.	3 phase transformer oil filled 10 KVA	Standard	1
88.	3 phase squirrel cage Induction motors 5HP	Standard	1
89.	Circuit breakers	Standard	1
90.	Isolators	Standard	1
91.	Motors	Standard	1
92.	Fans	Standard	1
93.	Lighting fixtures	Standard	1
94.	Heaters	Standard	1
95.	Compressors	Standard	1
96.	Pumps	Standard	1
97.	Modal of continuity of circuits	Standard	1
98.	heavy duty cutter	Standard	1
99.	Electric knife	Standard	1
100.	Connector	Standard	1
101.	Lug	Standard	1
102.	Wire gauge	Standard	1
103.	Battery charger	Standard	1
104.	Pulley puller	Standard	1
105.	Hydrometer	Standard	1
106.	tong tester	Standard	1
107.	Cable	Standard	1

108.	Cable tray	Standard	1
109.	Line tester	Standard	1
110.	Lead acid Batteries	Standard	1
111.	Gate end box with female socket: single font	Standard	1
112.	Single door and stand mounted with bottom cable entry system	Standard	1
113.	No/Nc push buttons	Standard	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard, Pin Up boards, Demonstration Table
2. LCD Projector
3. Computer/Laptop with Internet
4. Trainer Chair and Table
5. Whiteboard markers

Annexure: Industry Validations Summary

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1.	Alxa Chemical	Madan Singh Gujar	Proprietor	PLOT-26, JAYNARAYANPURI, NIWARU ROAD, JHOTWARA, JAIPUR, RAJASTHAN-302012	9829094130	alxachemical@gmail.com	
2.	Caltex Mining Pvt Ltd	Kartik Paul	Executive	8A, Rajmohan Street, 3rd Floor, Kolkata - 700 073	09874388894	caltexminingit@rediffmail.com	

3.	East India Minerals Limited	Pushpak Mishra	GM (Commercial)	6, Waterloo St, Esplanade, Chowringhee North, Bow Barracks, Kolkata, West Bengal 700069	9830059283	pushpak_mishra@hotmail.com	
4.	GS Atwal and Co	Vikram Dewan	Purchase Head	4B, Little Russel St, Kankaria Estates, Park Street area, Kolkata, West Bengal 700071	9830595259	gsengineers@gmail.com	
5.	Integrated Coal and Mining Limited (ICML)	Niladri Topodar	Assistant Manager (HR/IR)	Hindustan Colas, 6, Church Ln, B.B.D. Bagh, Kolkata, West Bengal 700001	9830987657	nilidri.topodar@rpgs.com	
6.	Maheshwari Mining Pvt. Ltd	Jayram Koushik	VP	Shilpangan, Block - LB, Plot-1, Sector-III, Module - 1, 4th Floor, CF Building, Salt Lake, Kolkata - 700098	9810706023	jayaram.koushik@maheshwaree.com	
7.	Amnex	Abhijit Anand	Group Head	Mondeal Heights, Wing-B, 1201/1202/1301, Sarkhej - Gandhinagar Hwy, Ahmedabad, Gujarat: 380015	97277 47451	info@amnex.com	
8.	Jindal Steel & Power	Vivek Gupta	Corporate Head	Jindal Centre 12, Bhikaiji Cama Place, New Delhi - 110 066, INDIA	91 11 26188340-50	info@jindalsteel.com	
9.	Naaraayani	Khurshid Alam	Managing Partner	A1/3 Umesh Enclave, Main Road, Adityapur, Dist- Saraikela-Kharswan, Jharkhand-831013	6767351080	info@naaraayani.com	

10.	Mine Magma	M Manjunath Reddy	Proprietor	131, 2nd Floor, 1st Main, 2nd Stage, Kengeri Satellite Town, (Beside Corporation Bank), Bangalore - 560 060	99867 07359	contact@minemagma.com	
11.	JSW Cement	Tinu Sule	Group Head - HR	JSW Centre Bandra Kurla Complex, Near MMRDA Grounds, Bandra East, Mumbai 400 051	1800 266 266 1	info@jswcement.in	
12.	BGR Mining and Infra Ltd	Veepasha Kulkarni	Head BU HR	BGR Mining & Infra Ltd. #8-2-596/R, Road No.10, Banjara Hills, Hyderabad, Telangana, India - 500034	+91 40 23351932	careers@bgrmining.com	
13.	Saurashtra Cement Limited	G.M Trivadi	Gen. Manager (P & HRD)	Saurashtra Cement Limited Off Veraval Kodinar Highway Sidheegram - 362 276 Taluka Sutrapada Distr. Junagadh (Gujarat)	02876 - 268200 / 02876 - 308200 / 286530 - 34	pralhad@mehtagroup.com	
14.	Dalmia Bharat Cement	Avnys Murthy	Unit Head- Ariyalur unit	Dalmia Bharat Group, 11th & 12th Floor, Hansalaya Building, 15 Barakhamba Road, New Delhi 110001	+91 11 23465100	corpcomm@dalmiabharat.com	
15.	ACC LIMITED	G. Srivastava	HR Head	Adani Corporate House Shantigram, S. G. Highway, Khodiyar, Ahmedabad - 382 421, Gujarat, India	+91 79-2555 5555	acchelp@adani.com	
16.	VPR	K Vijay Kumarj	DGM-HR	D.No.8-2-293/82/A/1259, 3rd Floor,	040 - 23551862/63	info@vprmininginfra.com	

				Plot No.1259, Lakshmi Towers, Road No.36, Jubilee Hills, Hyderabad - 500 033 Telangana			
17.	Rungta Mines Limited	G Vidhyanathan	Group Head Mining division	RUNGTA MINES LIMITED is 8A EXPRESS TOWER, 42A SHAKESPEARE SARANI , KOLKATA, West Bengal, India - 700017.	+91 (06553) 226846	INFO@THERUNGTAGROUP.COM	
18.	Elixir Engineering	H P Rajesh Rao	HR General Manager	6, 1st Floor, SFHS Shopping Area, Nandini Layout, Bangalore - 560 096.	91-8023196645	info@elixirengineering.com/elixireng@gmail.com	
19.	Shyam Metalic	Birendra Kumar	Assistant General Manager	Tower 7th Floor, Trinity, 83, E Topsia Rd, Kolkata, West Bengal 700046	1800 202 2233	contact@shyamgroup.com	
20.	Sainik Mining and Allied Services Ltd.	Lokendra Sethi	Plant Head	7th Floor, Corporate Tower, Ambience Mall NH-8, Gurgaon – 122001, Haryana	+91 124-2719000	info@sainikmining.com	
21.	Thriveni Sainik	Swathi Sinha	Corporate Communication & HR Head	Barwadih Coal Mining Project, Langatu, Barkagaon, Hazaribag – 825311, Jharkhand, India	91 6546-223115	info@thrivenisainik.com	

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	100	100	25	25	Not applicable	Not applicable
2026-27	150	150	37	37	Not applicable	Not applicable
2027-28	150	150	37	37	Not applicable	Not applicable

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
2.0	2022-23	74	144	121	Not available	Not available	Not available	Not available	Not available	Not applicable	Not applicable	Not applicable	Not applicable
2.0	2023-24	72	65	81	Not available	Not available	Not available	Not available	Not available	Not applicable	Not applicable	Not applicable	Not applicable
2.0	2024-25	204	158	192	Not available	Not available	Not available	Not available	Not available	Not applicable	Not applicable	Not applicable	Not applicable

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. Industry funded (NON-PMKVY)
- 2.

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:

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	• Books/ e-books • Presentations • Reference Material • Audio / Video Modules	Only Offline. Online only on exceptional cases.
2	☒ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	• Self-Learning Videos • Broadcasts • Mobile Learning • Curated Digital content	Only Offline. Online only on exceptional cases.
3	☒ Showing Practical Demonstrations to the learners	• Video Content • E-Resource library • AR/ VR/ XR	Only Offline
4	☒ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	• Training tools (tools list attached) • Video Play • Presentations	Only Offline
5	☒ Tutorials/ Assignments/ Drill/ Practice	• Online Question Bank • Mobile Quick test app • MCQ based tests	Only Offline. Online only on exceptional cases.
6	☒ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	• Assessment engine for Essays • Up-loadable file examinations • Mock test sessions	Tablet based/Online
7	☒ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	• Online tests • Offline assessments	Only Offline

Annexure: Detailed Assessment Criteria

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

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
MIN/N1101: Handle material	<i>Move material within the mining area</i>	9	14	-	6
	PC1. pack and transport material, as per the instructions from the supervisor	5	7	-	3
	PC2. follow the traffic rules and area restrictions within the mining area	4	7	-	3
	<i>Load/unload the materials</i>	14	21	-	9
	PC3. lift materials manually and dump the material	6	7	-	3
	PC4. select and use appropriate tools and tackles	4	7	-	3
	PC5. record count of material received and stack the material as instructed	4	7	-	3
	<i>Reject unwanted materials</i>	7	15	-	5
	PC6. sort visually, shift and create separate piles from the mineral rejects	4	8	-	3
	PC7. inform supervisor of problems that are beyond scope of his role	3	7	-	2
	Total Marks	30	50	-	20
DGT/VSQ/N0101: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
	<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
	PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
	<i>Basic English Skills</i>	2	3	-	-
	PC4. speak with others using some basic English phrases or sentences	-	-	-	-
	<i>Communication Skills</i>	1	1	-	-
	PC5. follow good manners while communicating with others	-	-	-	-
	PC6. work with others in a team	-	-	-	-
	<i>Diversity & Inclusion</i>	1	1	-	-
	PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-

	PC8. report any issues related to sexual harassment	-	-	-	-
	<i>Financial and Legal Literacy</i>	3	4	-	-
	PC9. use various financial products and services safely and securely	-	-	-	-
	PC10. calculate income, expenses, savings etc.	-	-	-	-
	PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
	<i>Essential Digital Skills</i>	4	6	-	-
	PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
	PC13. use internet and social media platforms securely and safely	-	-	-	-
	<i>Entrepreneurship</i>	3	5	-	-
	PC14. identify and assess opportunities for potential business	-	-	-	-
	PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
	<i>Customer Service</i>	2	2	-	-
	PC16. identify different types of customers	-	-	-	-
	PC17. identify customer needs and address them appropriately	-	-	-	-
	PC18. follow appropriate hygiene and grooming standards	-	-	-	-
	<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
	PC19. create a basic biodata	-	-	-	-
	PC20. search for suitable jobs and apply	-	-	-	-
	PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
	Total Marks	20	30	-	-
MIN/N1702: Follow Health, Safety and Environmental guidelines for Underground Metalliferous Mines	<i>Follow work-site health and safety measures</i>	24	42	-	17
	PC1. undertake "The Take-5 (Personal Risk Assessment)" before commencement of any work	-	2	-	2
	PC2. comply with safety, health and security- related regulations/guidelines at the mine e.g. follow Standard Operating Procedure (SOP) for material handling in underground (U/G) mine	1	3	-	-
	PC3. operate various types of fire extinguishers to control different types of fire at a worksite when required	1	4	-	1
	PC4. check that roof supporting is as per Systematic Support Plan (SSP) and approved Systematic Support Rules (SSR) while undertaking work in an area	1	1	-	-
	PC5. take precaution against occupational health hazards (like dust, water, mine gases etc.) due to U/G working environment	1	2	-	1

PC6. use self-rescue apparatus, appropriately when required	-	4	-	1
PC7. follow appropriate emergency response procedure during emergency such as fire, water inrush, fall of ground etc.	1	2	-	1
PC8. follow precautions against U/G electrical appliances	2	2	-	2
PC9. follow appropriate Standard Operating Procedure while working near any isolated and sealed off area of the mine	2	2	-	1
PC10. follow appropriate safety practices while traveling on U/G haul roads, incase of post blast fumes and misfire	2	4	-	-
PC11. follow the manufacturer's instructions for care and safe operation of mine machinery and equipment	1	2	-	1
PC12. identify the working ventilation district from line diagram of ventilation circuit to direct air to the working face	1	1	-	-
PC13. follow Safety Management Plan (SMP) and Emergency Management Plan (EMP)	1	-	-	-
PC14. follow gas detecting alarm signal on leakage of inflammable gases and laid out procedure to ensure safety	1	2	-	1
PC15. follow process for reporting any unsafe act/condition in work area to the concerned person	-	2	-	1
PC16. use underground mine communication system	-	1	-	-
PC17. ensure positive isolation near the work place if applicable	1	1	-	1
PC18. use appropriate PPE as per the requirement	2	4	-	2
PC19. maintain hand hygiene by washing hands with alcohol based sanitisers/soap	1	1	-	1
PC20. disinfect the machine/tools before and after work/task	1	1	-	-
PC21. maintain hygiene at the work site	1	1	-	1
PC22. report any symptoms of illness to the shift- incharge	1	-	-	-
PC23. identify six directional hazards at workplace and take decisions accordingly	2	-	-	-
<i>Follow environmental guidelines</i>	6	8	-	3
PC24. identify the environmental impact of mining related operations and follow steps to reduce those impact	1	2	-	-
PC25. follow the mineral conservation practices in U/G mining operations to achieve optimum ore or mineral recovery				

		-	1	-	-
	PC26. ensure that the stowing practices produce minimum disturbance to the surface	1	1	-	-
	PC27. ensure that the subgrade ore is carried out to surface and stacked separately at the earmarked place	1	-	-	1
	PC28. ensure the productivity of the machine for material/fuel conservation	1	1	-	-
	PC29. follow the process for collecting, storing and disposing of the hazardous material and waste (like used oil, lubricant, battery, etc.) in compliance with worksite guidelines	1	1	-	1
	PC30. follow the "5-S" practice at work site like cleaning oil from ground (to avoid soil from getting damaged), etc.	1	2	-	1
	NOS Total	30	50	-	20
MIN/N1704: Follow Health, Safety, and Environmental guidelines for underground coal mines	<i>Follow work-site health and safety measures</i>	24	43	-	14
	PC1. follow preventive measures against firedamp, whitedamp, blackdamp etc.	1	1	-	-
	PC2. use the flame safety lamp for detecting the methane gas as per Standard Operating Procedure (SOP)	-	1	-	-
	PC3. undertake "The Take-5 (Personal Risk Assessment)" before commencement of any work	1	1	-	1
	PC4. comply with safety, health and security-related regulations/guidelines at the mine e.g. SOP for material handling in underground (U/G) mine	1	1	-	1
	PC5. ensure that oil, grease, canvas or other inflammable material are stored in fire-proof receptacle	-	1	-	-
	PC6. ensure that every instrument, apparatus and equipment are DGMS approved before these are used	1	1	-	-
	PC7. ensure that Armoured face conveyor (AFC) and chocks must be kept in a straight line for every cycle of operations and tightened up to the setting pressure while keeping it in full contact with the roof, applicable for longwall mining	3	3	-	-
	PC8. provide first aid to an injured person	1	2	-	1
	PC9. follow safety precautions against spontaneous heating of the coal	1	1	-	-

PC10. operate various types of fire extinguishers to control different types of fire at worksite, if required	-	2	-	-
PC11. ensure that no person is traveling/working/staying under unsupported roof	1	-	-	-
PC12. check that roof supporting is as per Systematic Support Plan (SSP) and approved Systematic Support Rules (SSR) while undertaking work in an area	-	2	-	1
PC13. take precaution against occupational health hazards (like dust, water, mine gases etc.) due to U/G working environment	-	1	-	1
PC14. use self-rescue apparatus appropriately when required	-	2	-	-
PC15. follow Safety Management Plan (SMP) and Emergency Management Plan (EMP)	1	2	-	1
PC16. follow precautions against U/G electrical appliances	2	2	-	1
PC17. take proper care against damage and accidents while loading, transporting, dismantling and erecting of roof supports	1	2	-	-
PC18. follow appropriate SOP while working near any isolated and sealed off area of the mine	1	1	-	1
PC19. ensure that the roof and the sidewalls of the mine face (or newly exposed area of the mines) have been scaled/dressed properly	1	1	-	-
PC20. take relevant safety precautions during depillaring operation in UCM	-	2	-	1
PC21. follow appropriate safety practices while traveling on U/G haul roads, incase of post blast fumes and misfire	1	1	-	-
PC22. follow the manufacturer's instructions for care and safe operation of mine machinery and equipment	-	1	-	1
PC23. identify the working ventilation district from line diagram of ventilation circuit to direct air to the working face	-	1	-	1
PC24. follow laid out SOP in case of alarm signal for leakage of inflammable gases	1	1	-	-
PC25. follow the process of reporting any unsafe act/condition in the working area to the concerned person	-	1	-	1
PC26. use underground mine communication system	-	1	-	-

	PC27. ensure positive isolation near the work place if applicable	1	1	-	-
	PC28. use appropriate Personal Protective Equipment (PPE) as per the requirement	2	2	-	1
	PC29. maintain hand hygiene by washing hands with alcohol based sanitisers/soap	-	1	-	-
	PC30. disinfect the machine/tools before and after work/task	1	1	-	-
	PC31. maintain hygiene at the work site	1	1	-	-
	PC32. report any symptoms of illness to the shift- incharge	1	1	-	-
	PC33. identify six directional hazards at workplace and take decisions accordingly	-	1	-	1
	<i>Follow environmental guidelines</i>	6	7	-	6
	PC34. identify the environmental impact of mining related operations and follow steps to reduce those impact	1	1	-	1
	PC35. follow the mineral conservation practices in U/G mining operations to achieve optimum ore or mineral recovery	1	1	-	1
	PC36. ensure that the stowing practices produce minimum disturbance to the surface	1	1	-	-
	PC37. ensure that the subgrade coal is carried out to surface and stacked separately at the earmarked place	1	1	-	1
	PC38. ensure the productivity of the machine for material/fuel conservation	1	1	-	1
	PC39. follow the process for collecting, storing and disposing of the hazardous material and waste (like used oil, lubricant, battery, etc.) in compliance with worksite guidelines	-	1	-	1
	PC40. follow the "5-S" practice at work site like cleaning oil from ground (to avoid soil from getting damaged), etc.	1	1	-	1
	NOS Total	30	50	-	20
MIN/N1102: Assist in Pre-Operational Checks and Servicing of machinery	<i>Assist in conducting the pre-operational checks of the HEMM</i>	13	21	-	7
	PC1. assist in visual inspection of the components of HEMM for cracks and wear, and communicate the same to technician/ operator; parameters- unusual noise, vibration, leak, spillage, accumulation, etc.	1	2	-	-
	PC2. inspect the bucket for any crack or damage of tooth points, lock pin, etc.	1	2	-	1

PC3. check the hydraulic oil levels, radiator water levels, anti-freeze levels, etc.	2	3	-	1
PC4. check the track chain pad, bolts, and links in crawler mounted equipment and tighten bolts, as required	2	3	-	1
PC5. check if gauges, indicators, and sensor are fully functional and report the same to technician or operator; parameters- alarm message	2	3	-	1
PC6. check for any leakage in compressor unit, airline, and other components	2	3	-	1
PC7. check for any defect in trailing cable and cable joints	1	2	-	1
PC8. carry all the tools and tackles, required for the assigned job	2	3	-	1
<i>Assist in conducting routine maintenance of HEMM, automotive fleet, and other machinery</i>	17	29	-	13
PC9. clean the work area and assist the Technician in conducting the inspection of HEMM and automotive fleet	1	2	-	1
PC10. follow all the work instruction from Fitter / Technician related to routine maintenance	1	2	-	1
PC11. ensure that no maintenance task on the engine is performed when running or still hot	1	2	-	1
PC12. repair or replace faulty parts as per Technician or Operator's instructions	1	2	-	1
PC13. use various kinds of hand held and power- tools to lift, dismantle or assemble machine components	1	2	-	1
PC14. perform greasing & lubrication, as directed by operator/ technician	1	2	-	1
PC15. assist in changing oil, oil filters, air filters and replacing hoses, belts, water pumps, and other parts	1	2	-	1
PC16. check fan belts, hoses, wiper blades, and other safety equipment	1	2	-	1
PC17. assist the Technician in maintaining and repairing the automotive fleet, HEMM, and other equipment	1	1	-	1
PC18. check the air in tires, inflate them, change and repair them, as required	2	2	-	1
PC19. respond to road service calls and tow broken-down vehicles	1	1	-	1

	PC20. refuel, wash, and clean machinery, as required	2	3	-	1
	PC21. assist in welding services, as needed	1	3	-	1
	PC22. assist in fitting of pipes and shifting of pumps	2	3	-	-
	NOS Total	30	50	-	20
MIN/N1509: Assist in shifting and operation of the underground machines	<i>Assist in shifting and placement of the machine</i>	19	34	-	13
	PC1. follow the work instruction for shifting and positioning of underground machinery such as the loader, jumbo drill, low profile dump trucks, etc.	2	4	-	1
	PC2. ensure that the path is free from any obstruction	2	4	-	2
	PC3. ensure that no blasting operation is in progress in the area to be shifted	2	4	-	2
	PC4. carry the trailing cable while placement of machine in case of electrical driven machines	2	5	-	2
	PC5. guide the operator for placement of drill machine at distinctly marked position given by Mechanic/Technician/ surveyor	2	4	-	2
	PC6. carry out visual inspection of the area before starting the operation	2	4	-	1
	PC7. ensure that the dumping area is free from cracks and subsidence	1	1	-	1
	PC8. inspect the unloading area properly for any persons or machinery before starting the dumping operation	3	4	-	1
	PC9. ensure that no person is present in the unloading/dumping area or in the crusher/chute area, to ensure the area is safe	3	4	-	1
	<i>Assist during the operation of machines</i>	4	8	-	3
	PC10. report any abnormality in the machine operation to the operator	2	4	-	1
	PC11. perform water spraying on muck pile, if in practice	2	4	-	2
	<i>Clean the equipment</i>	7	8	-	4
	PC12. clean the operator's cabin and its glasses for better visibility, before starting the machine in a shift	4	4	-	2
	PC13. set-up devices and machine parts, using hand tools	3	4	-	2
	NOS Total	30	50	-	20
	<i>Assist in installation & operation of the electrical supply system and electrical equipment</i>	13	22	-	8

MIN/N1104: Assist in installation and maintenance of electrical systems and equipment	PC1. follow all the work instruction from Mine Electrician and assist him/her for installation and operation of electrical supply and electrical equipment such as transformers, generators, circuit breakers, etc.	3	5	-	2
	PC2. use necessary tools such as screw drivers, pliers, etc. and equipment such as ladder for working at height, cables of required specifications, etc.	3	5	-	2
	PC3. put Lock Out Tag Out (LOTO) label and ensure zero energy state before starting the job	3	4	-	2
	PC4. ensure proper laying of cable to protect from any damage	2	4	-	1
	PC5. ensure proper housekeeping of the area after completion of the job and disposal of the scrap material, as per the guideline of the organization	2	4	-	1
	<i>Assist in the maintenance of electrical supply system and electrical equipment</i>	17	28	-	12
	PC6. assist Mine Electrician in maintenance of transformers, generators, circuit breakers, isolators, bus bars, control panel, switch board, wiring, protective relays etc.	2	4	-	2
	PC7. ensure cleaning of electronic components, as per instruction from Mine Electrician or manufacturer's manual.	2	4	-	1
	PC8. assist in replacing the spare parts, as per Mine Electrician's instructions	2	4	-	1
	PC9. replenish/change the consumables, as per service manual/Mine Electrician's instructions	2	4	-	2
	PC10. interpret displayed messages and outputs and share the same with Mine Electrician	3	4	-	2
	PC11. perform a visual inspection to verify proper functioning of electronic/electrical components, as per manufacturer's manual	3	4	-	2
	PC12. ensure proper earthing for welding machines and hand tools, as required	3	4	-	2
NOS Total		30	50	-	20
Grand Total		200	330	-	120

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.

Mention the detailed assessment strategy in the provided template.

Assessment system Overview: -

Assessment will be carried out by SCMS affiliated assessment partners. Based on the results of assessment, SCMS certifies the learners. Candidates have to pass online theoretical assessment which is approved by SCMS.

The assessment will have both theory and practical components in 30:70 ratio.

While theory assessment is summative and an online written exam; practical will involve demonstrations of applications and presentations of procedures and other components. Practical assessment will also be summative in nature.

Testing Environment: -

Training partner has to share the batch start date and end date, number of trainees and the job role.

Assessment is 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.

Question bank of theory and practical will be prepared by assessment agency and approved by SCMS. From this set of questions, assessment agency will prepare the question paper. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on theoretical knowledge of the subject.

The theory and practical assessments will be carried out on same day. If numbers of candidates are many, more assessors and venue will be organized on same day of the assessment.

Assessment			
Assessment Type	Formative or Summative	Strategies	Examples
Theory	Summative	Written Examination	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks	Presentation

Viva	Summative	Questioning Probing	and	Mock interview on topics
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Assessment Quality Assurance framework

Only certified assessor can be assigned for conducting assessment. Provision of 100 % video recording with clear audio to be maintained and the same is to be submitted to SCMS.

The training partner will intimate the time of arrival of the assessor and time of leaving the venue.

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 will be carried out. Aadhar card number is required of registering the candidate for training. This will form the basis of further verification during the assessment. Assessor conducts the assessment in accordance with the assessment guidelines and question bank as per the job role. The assessor carries tablet with the loaded questions. This tablet is geo tagged and so it is monitored to check their arrival and completion of assessment. Video of the practical session is prepared and submitted to SCMS. Random spot checks/audit is conducted by SCMS assigned persons to check the quality of assessment. Assessment agency will be responsible to put details in SIP.

SCMS will also validate the data and result received from the assessment agency.

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 SCMS assessment team. After upload, only SCMS can access this data. SCMS approves the results within a week and uploads on SIP.

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework

OJT	On the Job Training
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Glossary

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