QUALIFICATION FILE

Jack Hammer Operator

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

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

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

NCrF/NSQF Level: 3

Submitted By:

Skill Council for Mining Sector (SCMS)

FIMI House, B-311,

Okhla Industrial, Phase-1

New Delhi-110020

Table of Contents

Section 1: Basic Details

1.	**Qualification Name**	Jack Hammer Operator	
2.	**Sector/s**	Mining	
3.	**Type of Qualification:** ☐ **New** ☒**Revised** ☒**Has Electives/Options** ☐**OEM**	**NQR Code & version of existing/previous qualification:** 2022/MIN/SCMS/06983 & Version 2.0	**Qualification Name of existing/previous version:** Jack Hammer Operator
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-03-MG-04057-2025-V2-SCMS & Version 3.0	**6. NCrF/NSQF Level: 3**
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 Jack Hammer Operator drives and controls a Jack Hammer machine in mines (both opencast and underground) or construction site to drilling a hole in the rock and break up rocks, concretes or mines surfaces. Directs and facilities scaling of loose rocks and mucking of broken ore or waste rock from the worksite. Operators are also responsible to ensure all safety systems are in place and performing basic maintenance on the Jack Hammer.	
9.	**Eligibility Criteria for Entry for Student/Trainee/Learner/Employee**	**a. Entry Qualification & Relevant Experience:**	

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1.	10th grade pass (or equivalent)	-
2.	9th grade pass	1.5 years relevant experience in Mining Industry
3.	8th grade pass	3 years relevant experience in Mining Industry
4.	5th grade pass	7.5 years relevant experience in Mining Industry
5.	Previous relevant Qualification of NSQF Level 2 (Helper-Opencast Mines or Helper- Underground Mines)	3 years relevant experience in Mining Industry

b. Age: 20 years

10.	**Credits Assigned to this Qualification, Subject to Assessment** *(as per National Credit Framework (NCrF))*	13	**11. Common Cost Norm Category (I/II/III)** *(wherever applicable)*: **I**
12.	**Any Licensing requirements for Undertaking Training on This Qualification** *(wherever applicable)*	Not Applicable	
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)	110:00	220:00	00:00	-	330:00
Online	-	-	-	-	-

(Refer Blended Learning Annexure for details)

14.	**Aligned to NCO/ISCO Code/s** *(if no code is available mention the same)*	NCO-2015/8111.0100
15.	**Progression path after attaining the qualification** *(Please show Professional and Academic progression)*	NSQF Level 4.0 (Vertical) – Jumbo Drill Operator
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** *(Specify the NOS/Module which covers it)*	**☒ Yes ☐ No** MIN/N1702, MIN/N1703, 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** *(In case of CS or MS, provide details of both Lead AB & Supporting ABs)*	Name: Mr. Navneet Kumar Email : coo@skillcms.in, scms@skillcms.in Contact No.: +91-11-26814593 Website : https://www.skillcms.in/
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.	Prepare the Jack Hammer for operations	MIN/N1204 & V2.0	Core	3	3	30:00	60:00	-	-	90:00	30	50	0	20	100	15
2.	Perform Jack Hammer operations	MIN/N1205 & V2.0	Core	3	4	20:00	100:00	-	-	120:00	30	50	0	20	100	30
3.	Perform basic maintenance and troubleshooting of the Jack Hammer	MIN/ N1206 & V2.0	Core	3	2	20:00	40:00	-	-	60:00	30	50	0	20	100	15
4.	Carry out reporting and documentation related to the Jack Hammer operator	MIN/N1207 & V2.0	Core	3	1	10:00	20:00	-	-	30:00	30	50	0	20	100	10
5.	Employability Skills (30 Hours)	DGT/VSQ/N 0101 & V1.0	Non-Core	2	1	30:00	00:00	00:00	-	30:00	20	30	-	-	50	10
Duration (in Hours) / Total Marks					**11**	**110:00**	**220:00**	**00:00**	**-**	**330:00**	140	230	-	80	450	80

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	MIN/N1702 & V3.0	Core	1	2	20:00	40:00	-	-	60:00	30	50	-	20	100	20

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
	for Underground Metalliferous Mines															
2.	Follow Health, Safety, and Environmental Guidelines for opencast mines	MIN/N1703 & V3.0	Core	1	2	20:00	40:00	-	-	60:00	30	50	-	20	100	20
3.	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	-	20	100	20
Duration (in Hours) / Total Marks					**6**	**60:00**	**120:00**	**-**	**-**	**180:00**	**90**	**150**	**-**	**60**	**300**	**60**

Optional NOS/s: Not Applicable

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.																
2.																
Duration (in Hours) / Total Marks																

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: 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 10th pass with 6 years of relevant experience required in Jack Hammer operations. OR ITI (Mechanical Engineering) with 6 years of relevant experience required in Jack Hammer operations. OR Diploma (Mechanical Engineering) with 5 years of relevant experience required in Jack Hammer operations. OR B-Tech (Mechanical Engineering) with 4 years of relevant experience required in Jack Hammer operations. OR CITS-NCIC (Machinist & Operator, Advance Machine Tool) with 1 year relevant experience in Jack Hammer operations. AND Certified for Job role "Jack Hammer Operator" 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 10th pass with 6 years of relevant experience required in Jack Hammer operations. OR ITI (Mechanical Engineering) with 6 years of relevant experience required in Jack Hammer operations. OR Diploma (Mechanical Engineering) with 5 years of relevant experience required in Jack Hammer operations. OR B-Tech (Mechanical Engineering) with 4 years of relevant experience required in Jack Hammer operations. OR CITS-NCIC (Machinist & Operator, Advance Machine Tool) with 1 year relevant experience in Jack Hammer operations. AND Certified for Job role "Jack Hammer Operator" and Job Role "Master 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**	The trainers need to be updated for Employability Skills of 30 Hours.

Section 4: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Class 10th pass with 8 years of relevant experience required in Jack Hammer operations. OR ITI (Mechanical Engineering) with 8 years of relevant experience required 8 years of relevant experience required in Jack Hammer operations. OR

		Diploma (Mechanical Engineering) with 7 years of relevant experience required in Jack Hammer operations. OR B-Tech (Mechanical Engineering) with 6 years of relevant experience required in Jack Hammer operations. OR CITS-NCIC (Machinist & Operator, Advance Machine Tool) with 1 year relevant experience in Jack Hammer operations. AND Certified for Job role "Jack Hammer Operator" and Job Role "Assessor (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 10th pass with 6 years of relevant experience required in Jack Hammer operations. OR ITI (Mechanical Engineering) with 6 years of relevant experience required in Jack Hammer operations. OR Diploma (Mechanical Engineering) with 5 years of relevant experience required in Jack Hammer operations. OR B-Tech (Mechanical Engineering) with 4 years of relevant experience required in Jack Hammer operations. OR CITS-NCIC (Machinist & Operator, Advance Machine Tool) with 1 year relevant experience in Jack Hammer operations. AND Certified for Job role "Jack Hammer Operator" 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)** *(as per NCVET guidelines)*	Class 10th pass with 8 years of relevant experience required in Jack Hammer operations. OR ITI (Mechanical Engineering) with 8 years of relevant experience required 8 years of relevant experience required in Jack Hammer operations. OR Diploma (Mechanical Engineering) with 7 years of relevant experience required in Jack Hammer operations. OR B-Tech (Mechanical Engineering) with 6 years of relevant experience required in Jack Hammer operations. OR CITS-NCIC (Machinist & Operator, Advance Machine Tool) with 1 year relevant experience in Jack Hammer operations. AND Certified for Job role "Jack Hammer Operator" and Job Role "Lead Assessor (VET and Skills)" with minimum accepted score of 90% in each.
4.	**Assessment Mode** *(Specify the assessment mode)*	Tablet based/ Online
5.	**Tools and Equipment Required for Assessment**	☒ Same as for training ☐ Yes ☐ No *(details to be provided in Annexure-if it is different for Assessment)*

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	**Latest Skill Gap Study (not older than 2 years) (Yes/No):** Yes
2.	**Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):** 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:** 300
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 *(Mandatory)*	*Attached*
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	The responsibilities of a Jack hammer operator includes conducting preoperation checks, record and report details of daily checks, handover and takeover the Jack Hammer according to company's SOP, Performing Jack Hammer operations, Perform basic maintenance and troubleshooting of the Jack Hammer and adhere to the health and safety guidelines	A Jack hammer Operator drills holes in ore or rock in mine or quarry to facilitate blasting and quarrying, using jack hammer. Connects steam or compressed air and water lines to hammer. Inserts drill in chuck, trips trigger to start hammer, and leans on hammer to force drill into solid mass. Assess when the problem is beyond his competence and report the problem to Technicians / Site engineer.	3
Professional and Technical Skills/ Expertise/ Professional Knowledge	Code of practice in specific areas of mine. Cost of equipment and loss for the company those results from damage of equipment. Provision as per Mines Act1952. Knowledge of different types of Jack Hammer such as pneumatic, electromechanical or electro-pneumatic, hydraulic, their specifications and usage. Routine checks essential before starting Jack Hammer operations, including visual check of machine and surrounding for any defect or unsafe conditions. Importance of sensitization towards different genders and persons with disabilities (PWD)	Follow the code of practice in specific areas of the mine. Understand the effect of damaged equipment on the company. Discuss the provision of compensation and working hours, leaves, etc. as per Mines Act-1952. Demonstrate the use of different types of jack hammers such as pneumatic, electro-mechanical or electropneumatic, hydraulic, their specifications. Check the equipment for damage and follow safety provisions for machine.	3
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Skills to conduct visual inspection of the jack hammer and associated equipment for defects. Inspect the hydraulic oil level and the degree of contamination, tool and bushing for abnormal wear and cracks, right air flush or wet flush drilling, type of tool and mounting as required. Check the various controls, gauges, warning lamp, and air hoses for breaks, cracks, and worn or broken couplings. Perform Jack Hammer operation for breaking the rock and concrete or for scaling/dressing of the loose. Ensure that the Original Equipment Manufacturer (OEM) recommended procedure and checklist is followed for troubleshooting and routine servicing.	The jack hammer operator will be able to visually inspect the jack hammer for any damage and perform servicing as per the Original Equipment Manufacturer (OEM) recommendations. Perform the jack hammer operations as per the orders from the supervisor. Perform preventive maintenance of the jack hammer and associated equipment as per the SOP.	3
Broad Learning Outcomes/Core Skill	Take responsibility for completing one's own work assignment, methods to avoid accidents/errors while working with jack hammer. Note down observations (if any). Analyse and detect any potential problems that could arise during operation Read the manuals, safety instructions and symbols for the better understanding of the working of the cage/skip.	Records and note down the routine work and observation and comply task list related to safety aspect such as firefighting process, handling Explosive safely, control dust on hual road etc. and notify the same to senior. Hence, Communication written and oral, with minimum required clarity, skill of basic arithmetic and algebraic principles are required.	3

Responsibility	This job requires the individual to concentrate on the job at hand and complete it efficiently and effectively without any accidents. The individual should be skilled in controlling the jack hammer and the associated equipment. The individual must be able to follow instructions provided by supervisor.	Works independently as per the instruction of supervisor/ Shift In- charge/Mines Manager	3

Annexure: Tools and Equipment (Lab Set-Up)

(to be as per Industry Requirements)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1.	Drilling machine	Standard	1
2.	Drill HSS 6 mm	Standard	15
3.	Drill angle gauge	Standard	5
4.	drilling machine motorized pillar 20 mm	Standard	1

5.	steel tape 1 meter	Standard	10
6.	direct reading vernier calliper	Standard	5
7.	Jack Hammer	Standard	2
8.	Hydraulic jack	Standard	1
9.	jib crane	Standard	1
10.	chisel bits / compressed air / couplings/ rods etc.	Standard	10
11.	Different types of Jack Hammer such as pneumatic	Standard	3
12.	electro- mechanical or electro-pneumatic	Standard	10
13.	hydraulic	Standard	5
14.	Different type soft cutting tools/bits	Standard	15
15.	spare parts used for Jack Hammer	Standard	15
16.	Helmet	Standard	15
17.	gloves	Standard	15
18.	harness	Standard	15
19.	earplugs	Standard	15
20.	Safety Goggles	Standard	15
21.	Nose mask	Standard	5
22.	Safety shoes	Standard	10
23.	Fire extinguisher	Standard	3
24.	Types of log book	Standard	1
25.	First Aid box	Standard	1
26.	MCDR	Standard	1
27.	MCR	Standard	5
28.	Company's SOP	Standard	10
29.	Diagrams showing quarries	Standard	1
30.	overhangs	Standard	5
31.	fencing	Standard	10
32.	samples of different types of rocks to be encountered	Standard	1
33.	Mines Act	Standard	5
34.	"5-S" Charts	Standard	5
35.	Daily, Weekly, Monthly Maintenance/Defect sheets	Standard	5

36.	Systematic Support Plan (SSP)	Standard	5
37.	Systematic Support Rules (SSR)	Standard	5
38.	self-rescue apparatus	Standard	10
39.	Line Diagram of Ventilation Circuit	Standard	5
40.	Alcohol based sanitisers	Standard	5
41.	Gas Detector	Standard	1
42.	Safety Lamp	Standard	1
43.	Self-Contained Breathing Apparatus	Standard	1
44.	gum boots	Standard	5 pairs
45.	Diagrams of Armoured face conveyor	Standard	15
46.	Charts of coal mines occupational diseases	Standard	5
47.	CMR	Standard	1
48.	MRR	Standard	10
49.	Company's Safety Management Plan (SMP) and Emergency Management Plan (EMP)	Standard	5

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. Tables
6. Whiteboard markers

Annexure: Industry Validations Summary

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

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile *(if available)*
1.	Alxa Chemical	Madan Singh Gujar	Proprietor	PLOT-26, JAYNARAYANPURI, NIWARU ROAD,	9829094130	alxachemical@gmail.com	

				JHOTWARA, JAIPUR, RAJASTHAN-302012			
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	Avnvs 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.	+91 79-2555 5555	acchelp@adani.com	

				Highway, Khodiyar, Ahmedabad - 382 421, Gujarat, India			
16.	VPR	K Vijay Kumarj	DGM-HR	D.No.8-2-293/82/A/1259, 3rd Floor, Plot No.1259, Lakshmi Towers, Road No.36, Jubilee Hills, Hyderabad - 500 033 Telangana	040 - 23551862/63	info@vprmininginfra.com	
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,	91 6546-223115	info@thrivenisainik.com	

				Barkagaon, Hazaribag – 825311, Jharkhand, India			

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	50	50	20	20	Not applicable	Not applicable
2026-27	100	100	40	40	Not applicable	Not applicable

2027-28	150	150	60	60	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	02	73	47	Not available	Not available	Not available	Not available	Not available	Not applicable	Not applicable	Not applicable	Not applicable
2.0	2023-24	22	22	24	Not available	Not available	Not available	Not available	Not available	Not applicable	Not applicable	Not applicable	Not applicable
2.0	2024-25	42	11	42	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 & Hindi

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/N1204: Prepare the Jack Hammer for operations	*Conducting pre-operation checks*	**27**	**46**	**-**	**18**
	PC1. follow the work related instructions given by the supervisor before the shift starts	1	2	-	1
	PC2. discuss the shift / day's production plan and schedule with Foreman / Mine sirdar / site engineer	2	3	-	1
	PC3. inspect the body components for cracks and bearing wear	2	3	-	1

	PC4. ensure that the Jack Hammer is in good order and all guards, handles and safety mechanisms are fitted and operational	1	2	-	1
	PC5. inspect the hydraulic oil level, and the degree of contamination	2	3	-	2
	PC6. apply grease to all the required parts	1	3	-	1
	PC7. inspect the tool and bushing for abnormal wear and cracks	2	3	-	1
	PC8. choose the proper weight of the Jack Hammer for the given work	2	3	-	1
	PC9. arrange right air flush or wet flush drilling, type of tool and mounting as required	1	3	-	1
	PC10. inspect the electrical cables for cuts, marks, wear, and other signs of damage while using Electric Jack Hammer	1	3	-	1
	PC11. check whether the electrical lead is connected to an approved safety switch for electric Jack Hammer	1	3	-	1
	PC12. check pneumatic connection and hose joints for Pneumatic Jack Hammers	2	2	-	1
	PC13. check air hoses for breaks, cracks, and worn or broken couplings	2	3	-	1
	PC14. inspect whether right type of chisel bit is fitted and whether the bit/point is in good order or needs replacing	2	2	-	1
	PC15. check the various controls, gauges, warning lamp and other safety devices	1	2	-	1
	PC16. follow the manufacturer's instructions specified for care and safe operating condition of the Jack Hammer	2	3	-	1
	PC17. check available dust reduction measures	2	3	-	1
	Recording and reporting details of daily checks	**3**	**4**	**-**	**2**
	PC18. update the operation and maintenance log book to detail all activities conducted before starting the Jack Hammer	1	2	-	1
	PC19. inform the supervisor of those problems which are not under one's purview	2	2	-	1
	NOS Total	**30**	**50**	**-**	**20**
	Performing Jack Hammer operations	**30**	**50**	**-**	**20**

MIN/N1205: Perform Jack Hammer operations	**PC1.** plan and organise the tasks/works according to the supervisor's/site engineer's instructions	2	3	-	1
	PC2. ensure proper scaling/dressing of loose rocks from the roof and wall of the worksite	2	3	-	1
	PC3. ensure cleaning of the drill site	1	3	-	1
	PC4. inspect the support group for bolting, resincing plate tightening etc.	1	3	-	1
	PC5. check ongoing proper ventilation of the worksite for UG mines, as applicable	2	3	-	1
	PC6. erect signage, barricaded or bounded as required to make work area	2	3	-	1
	PC7. place the compressor as far as possible from the work site to reduce the amount of noise	2	3	-	1
	PC8. ensure that all air and water hoses are flushed or blown clear before they are connected to the Jack Hammer	2	3	-	1
	PC9. connect compressed-air and water lines to the Jack Hammer	1	2	-	1
	PC10. adjust the desired angle of hammer with respect to the rock or worksite	2	3	-	1
	PC11. drill holes in ore or rock as per required dimension given by supervisor	2	2	-	2
	PC12. perform Jack Hammer operation for scaling/dressing of the loose	1	3	-	1
	PC13. perform Jack Hammer operation for breaking the rock and concrete	2	2	-	1
	PC14. periodically check chisel bits for spending need and other operating parameters etc.	1	3	-	1
	PC15. shut off the air supply and relieve pressure from the supply hose before changing tool points and when leaving the Jack Hammer unattended	1	2	-	2
	PC16. ensure all machine consumables and spares (chisel bits / compressed air / couplings/ rods etc) are used to their maximum potential	2	3	-	1
	PC17. reduce downtime and wastage	2	3	-	1
	PC18. perform caution against hazards of Jack Hammer machine in operation	2	3	-	1

	NOS Total	30	50	-	20
MIN/N1206: Perform basic maintenance and troubleshooting of the Jack Hammer	*Perform basic maintenance and troubleshooting of the Jack Hammer*	30	50	-	20
	PC1. ensure proper Lock out and Tag out (LOTO)	1	2	-	-
	PC2. follow standard operating procedure set out for diagnosing faults	1	3	-	1
	PC3. ensure that the Jack Hammer air supply is shut off and pressure is relieved in the supply hose before changing tool points or carry out any maintenance activity	2	2	-	1
	PC4. ensure that the Original Equipment Manufacturer (OEM) recommended procedure and checklist is followed for routine servicing	2	2	-	1
	PC5. track machine operating hours to assess the required service	2	2	-	1
	PC6. review complaint sheet, Log Book and History Sheet of the Equipment to identify the repair requirements	1	2	-	1
	PC7. observe any unusual noise, crack, vibration, leak, spillage, accumulation etc. on the Jack Hammer and supply pneumatic / hydraulic /electro pneumatic system and seek corrective measures	2	4	-	1
	PC8. check for proper functionality of gauges, indicators, and sensor and observe any fault message and diagnose the problem solution	1	3	-	1
	PC9. replace chisel bits when required	1	2	-	1
	PC10. check structural integrity and any crack failure of stand or support structure	1	2	-	1
	PC11. drain water and sediment /fuel separators	1	2	-	1
	PC12. replenish coolants, lubricants and fluids	1	2	-	1
	PC13. inform technician and fitters for any major repair	1	2	-	1
	PC14. assist fitter and technician as and when required	3	3	-	1
	PC15. fill the daily, weekly and monthly maintenance/defect sheets as per the format lay down by the organization	1	2	-	1
	PC16. ensure cleaning of the drilling site and dispose of waste material and broken parts at appropriate place	1	2	-	1
	PC17. check the machine parameters before restart the machine operation	1	2	-	1

	PC18. identify fault in the Jack Hammer and trace the causes of this fault	2	2	-	1
	PC19. conduct scheduled, routine examination and assessments against equipment specifications to identify wear, damage, corrosion, inadequate fluid levels, leaks and general condition and serviceability	2	2	-	1
	PC20. carry out diagnostic procedures as per the troubleshooting checklist prepared by the Original Equipment Manufacturer (OEM)	1	4	-	1
	PC21. follow "5-S" practice near the workshop area	2	3	-	1
	NOS Total	**30**	**50**	**-**	**20**
MIN/N1207: Carry out reporting and documentation related to the Jack Hammer Operation	*Reporting and documentation*	**30**	**50**	**-**	**20**
	PC1. identify documentation to be completed	3	6	-	2
	PC2. prepare all documentation correctly on time	4	7	-	2
	PC3. report completion of job allocated during the shift, problems encountered and further actions that need to be taken	4	6	-	2
	PC4. report safety and hazard related problems on urgent and priority basis to the supervisor and the manager	4	6	-	3
	PC5. record the details of the machine operations accurately using the appropriate format	4	7	-	2
	PC6. ensure that all documents are available to all appropriate authorities for inspection	4	6	-	3
	PC7. use Mineral Conservation and development Rules (MCDR) based logbook and fill accurate data in correct format along with the signature at the end	3	6	-	3
	PC8. handover all important information to the reliever in a proper manner	4	6	-	3
	NOS Total	**30**	**50**	**-**	**20**
DGT/VSQ/N0101: Employability Skills (30 Hours)	*Introduction to Employability Skills*	**1**	**1**	**-**	**-**
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	Constitutional values – Citizenship	**1**	**1**	**-**	**-**
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
	Becoming a Professional in the 21st Century	**1**	**3**	**-**	**-**
	PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills,				

	Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
	Basic English Skills	**2**	**3**	-	-
	PC4. speak with others using some basic English phrases or sentences	-	-	-	-
	Communication Skills	**1**	**1**	-	-
	PC5. follow good manners while communicating with others	-	-	-	-
	PC6. work with others in a team	-	-	-	-
	Diversity & Inclusion	**1**	**1**	-	-
	PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
	PC8. report any issues related to sexual harassment	-	-	-	-
	Financial and Legal Literacy	**3**	**4**	-	-
	PC9. use various financial products and services safely and securely	-	-	-	-
	PC10. calculate income, expenses, savings etc.	-	-	-	-
	PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
	Essential Digital Skills	**4**	**6**	-	-
	PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
	PC13. use internet and social media platforms securely and safely	-	-	-	-
	Entrepreneurship	**3**	**5**	-	-
	PC14. identify and assess opportunities for potential business	-	-	-	-
	PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
	Customer Service	**2**	**2**	-	-
	PC16. identify different types of customers	-	-	-	-
	PC17. identify customer needs and address them appropriately	-	-	-	-
	PC18. follow appropriate hygiene and grooming standards	-	-	-	-
	Getting ready for apprenticeship & Jobs	**1**	**3**	-	-
	PC19. create a basic biodata	-	-	-	-
	PC20. search for suitable jobs and apply	-	-	-	-
	PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
	NOS Total	**20**	**30**	-	-
	Follow work-site health and safety measures	**24**	**42**	-	**17**

MIN/N1702: Follow Health, Safety and Environmental guidelines for Underground Metalliferous Mines	PC1. undertake "The Take-5 (Personal Risk Assessment)" before commencement of any work	-	2	-	2
	PC2. comply with safety, health and securityrelated 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, in case 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	-	-	-
	Follow environmental guidelines	**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/N1703: Follow Health, Safety, and Environmental Guidelines for opencast mines	*Follow work-site health and safety measures*	**20**	**34**	**-**	**15**
	PC1. comply with safety, health, and security- related regulations/guidelines at the opencast mine	2	2	-	1
	PC2. follow the safety instructions given by the workman's inspector	1	3	-	1
	PC3. follow adequate safety while working at haul roads, heights, overburden dumps, sump area, stockyard, near moving parts, etc.	3	3	-	1
	PC4. take safety precautions while working on sites (sub-station, workshop etc.), with equipment, and conducting welding and cutting operations	1	3	-	1
	PC5. follow appropriate Safe Operating Procedure (SOP) while dealing with explosives	2	3	-	2
	PC6. respond promptly and appropriately to an accident/ incident or an emergency situation, within limits of the role and responsibility	2	3	-	1
	PC7. provide first aid to an injured person	2	3	-	1
	PC8. operate various types of fire extinguishers to control different types of fire at a worksite when required	1	3	-	1
	PC9. use appropriate PPE as per the requirement	2	4	-	2
	PC10. maintain hand hygiene by washing hands with alcohol based sanitisers/soap	1	2	-	1

	PC11. disinfect the machine/tools before and after work/task	1	2	-	1
	PC12. maintain hygiene at the work site	1	1	-	1
	PC13. report any symptoms of illness to the shift- incharge	1	2	-	1
	Follow Environmental guidelines	**10**	**16**	**-**	**5**
	PC14. identify the environmental impact of related opencast mining operations	2	2	-	1
	PC15. 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	2	-	1
	PC16. ensure not to mix topsoil with waste in day to day tasks	2	2	-	1
	PC17. ensure that HEMM is washed at the designated location	2	2	-	1
	PC18. ensure the productivity of the machine for material/fuel conservation	1	3	-	-
	PC19. follow the mineral conservation practices specified by the organization in accordance with MCDR-2017 (Mineral Conservation and Development Rules)	1	3	-	1
	PC20. assist supervisor for reducing environmental impact caused due to related mining operations	1	2	-	-
	NOS Total	**30**	**50**	**-**	**20**
MIN/N1704: Follow Health, Safety, and Environmental guidelines for underground coal mines	*Follow work-site health and safety measures*	**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
	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
	Follow environmental guidelines	**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	1	1	-	1

	conservation				
	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**
Grand Total		**230**	**380**	**-**	**140**

Annexure: Assessment Strategy

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 and Probing	Mock interview on topics

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

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.