





Nepal Industrial and Business Sector Occupational Standard (OS)

of Excavator Operator Level-2



In jointly implemented by











Occupational classification linkage with NSCO

Occupational Title: Excavator Operator

Level: 2 (Foreman Level)

Sector: Construction

Sub – Sector: Building, Infrastructure and Tunnel

construction

OS ID No: CT-005-078

Major Group: 8

Sub-major Group: 83

Minor Group: 834

Unit Group: 8342

Occupation Specific Employers Panel:

S.N.	Name	Designation	Organization	
1.	Mr. Ain Bdr. Raut	Proprietor	Terije Construction, Sindhuli	
2.	Mr. Durgan Nanda Shah	Proprietor	Heavy equipment Province -2	
3.	Mr. Prem Raj Shrestha	Proprietor	Nawa Adarsha Nirman Sewa, Kathmandu	
4.	Mr. Bal Krishna Koirala	Proprietor	BG and Construction, Pokhara	
5.	Mr. Mahesh Raj Poudel	Proprietor	MR construction, Nepalgunj	
6.	Mr. Madan Khadka	Proprietor	Heavy Equipment, Surkhet	
7.	Mr. Dil Bdr. Rahul	Proprietor	DI Construction, Kailali	
8.	Mr. Salik Ram Shrestha	Proprietor	Special Construction, Lalitpur	
9.	Mr. Sunil Thapa	Proprietor	Thapa Construction, Dhading	
10.	Mr. Gokul Bhurtel	Proprietor	B and D Nirman Sewa, Kavre	
11.	Mr. Saroj Pradhanang	Proprietor	Duwakot Construction, Bhaktapur	
12.	Mr. Tara Bdr Kunwar	Proprietor	Diptara Construction, Kathmandu	

Occupation Specific Expert Workers Panel:

S.N.	Name	Designation	Organization	
1.	Mr. Gun Bdr Tamang	Excavator operator	PR Nirman Sewa, Bhaktapur	
2.	Mr. Rajendra Bastola	Excavator operator	Eastern Aggregate, Morang	
3.	Mr. Abdul Miya Ansari	Excavator operator	Shivashakti Construction, Saptari	
4.	Mr. Laxmi Pd Kandel	Excavator operator	Panchapuri Construction, Surkhet	
5.	Mr. Surya Narayan Shrestha	Excavator operator	Nayan Construction, Okhaldhunga	
6.	Mr. Manoj Ghimire	Excavator operator	Gwalek Nirman Sewa, Dhangadi	
7.	Mr. Kuber Khadka	Excavator operator	Nipurna Construction, Ramechhap	
8.	Mr. Buddhi Lal Shrestha	Excavator operator	Nawa Adarsha Nirman Sewa, Kavre	
9.	Mr. Raju Tharu	Excavator operator	Uma Kunda Nirman Sewa, Banke	
10.	Mr. Bishnu Pd. Shrestha	Excavator operator	SP Construction, Kathmandu	

OS Development Workshop facilitated by:

	S.N. Name		Designation	Organization
	1.	Khemraj Kafle	Facilitator / Expert	ELMS
Ī	2.	Mahendra Prasai	Co-facilitator/Recorder	LMI Unit, FNCCI

OS Reviewed by ELMS Construction Sector Working Group:

S.N.	Name	Designation	Representation (Organization)
1.	Mr. Gore Sherpa	General Secretary	FNCCI (IPAAN)
2.	Mr. Saurav Sharma	Member	CNI
3.	Mr. Satya Narayan Prajapati	Treasurer	FNCSI
4.	Mr. Santosh Shah	Executive board member	FCAN
5.	Mr. Ramesh Man Shakya	Construction Sector Expert	ELMS

OS Verified by ELMS Technical Advisory Committee:

S.N.	Name	Designation	Organization	
1.	Dr. Mahesh Nath Parajuli	Professor KU		
2.	Mr. Kul Bahadur Phadera	Under secretary	MoEST	
3.	Mr. Pravat Uprety	Associate Professor	TU	
4.	Mr. Kishor KC	Statistics Officer	CBS	
5.	Ms. Sharada Ghimire	Deputy Director	CTEVT, Curriculum Division	
6.	Mr. Keshab Ghimire	Deputy Director	CTEVT, NSTB	

OS Recommended by ELMS Coordination Committee:

S.N.	Name	Designation	Organization
1.	Mr. Rabin Kumar Shrestha	Focal Person/Ex EC Member	FNCCI
2.	Mr. Sumit Kumar Kedia	Executive Committee Member	FNCCI
3.	Mr. Birendra Raj Pandey	Vice President	CNI
4.	Ms. Megh Nath Neupane	Senior Consultant	CNI
5.	Ms. Shobha Gurung	Vice President	FNCSI
6.	Mr. Mohan Katuwal	Vice President	FNCSI
7.	Mr. Binayak Shah	Senior Vice President	HAN
8.	Mr. Sajan Shakya	Secretary General	HAN
9.	Mr. Nicholas Pandey	Senior Vice President	FCAN
10.	Mr. Roshan Dahal	General Secretary	FCAN

OS Approved by ELMS Board:

S.N.	Name	Designation	Organization	
1.	Mr. Shekhar Golchha	President	FNCCI	
2.	Mr. Vishnu Kumar Agarwal	President	CNI	
3.	Mr. Shyam Prasad Giri	President	FNCSI	
4.	Ms. Srijana Rana	President	HAN	
5.	Mr. Rabi Singh	President	FCAN	
6.	Mr. Chandra Kanta Adhikari	Member Secretary	ELMS	

Occupational Description:

The excavator operator needs to: operate excavator daily for 8-10 hours in the field; conduct routine checkup of excavator machine and equipment; prepare foundation for gabion box; cut hard rock, prepare road track, pile up construction materials (gravel, sand and stones; excavate foundation for bridge and buildings; prepare river diversion, fish ponds, drainage trench etc. In addition, coordination with team members, seniors and experts, regular reporting and record keeping are also prime duties of the excavator operator. Furthermore, the excavator operator must possess sound knowledge and skills of basic repair and maintenance of excavator, geographical knowledge of working sites, competencies in using software and updated in latest technology in the occupation.

Currently, few Nepali and others from abroad are working as an Excavator Operators. As per employers team, approximately 50000 excavators are still required in the country. It is essential to build dignity of the occupation in Nepalese context.

The occupation Excavator operator Level-2 (Foreman Level) describes the individual with required knowledge for applying basic method of performance, knowledge to select tools, equipment and materials appropriate for the given task. He/she possess the ability to apply basic theory and principle of the common duties and tasks to solve the given assignment. Further, the Excavator Operator has ability to act independently in simple core skills and can work under the supervision of supervisor for some higher level of tasks to ensure the technicality as a co-worker. This individual has to operate machines and supervises assistant worker and labour in the team. Nepal's industrial & business sector expects Individual reserving set level of skills, knowledge and attitudes which reflect for the improvement of production/services and workers' productivity.

Occupational and environmental safety:

In construction sites, the specific parking area for heavy equipment and machines are required. But, in most of the cases, there is limited space for parking of excavators. So, improper parking of the excavators in the sites creates unpleasant environment. Likewise, poor maintenance and servicing of the excavators emit high level of heavy carbon thus by resulting air pollution in the surrounding area. The mishandling or negligence in use of excavators disturb natural landscape, destroy greenery, increase soil erosion etc. So, Environment Impact Assessment (EIA) needs to be carried out to address the environmental issues. Standard operating procedure of the heavy equipment and machines recommended by the engineering and environmental experts need to be followed prior operation of excavators. Furthermore, proper daily assessment of working sites is required to minimize the injuries, casualties and damage of equipment and machines caused by unavoidable accidents.

Minimum Job Entry Requirement:

Nepalese citizen aged 18 years and above having competencies in operating, repairing and maintenance of excavator are eligible to enter in this occupation. To cope the required knowledge and tasks performance standard of this occupation, 10th grade graduates or equivalent qualification are recommended to enter in the skills and knowledge impartation courses.

Worker's traits:

The occupation Excavator Operator demands higher level of dedication in occupational safety and safe handling of tools and machines. The excavator operator is required to: enjoy in use of equipment and machine, avoid alcoholic drinks and other bad feeding habits, motivated to work in machines in difficult and unusual situations.

Clear communication, pleasant interpersonal skills, sensitive with safety norms, healthy, physically fit, strong and free from nervousness, creative, problem solving, and high sense of work ethics, punctual, good in time management etc. are other qualities required for this profession.

Occupational carrier path:

- Above the Position- Senior Excavator Operator- Level 3 (Supervisor Level)
- Current Position- Excavator Operator- Level 2 (Foreman Level)
- Below the Position- Assistant Excavator Operator- Level 1 (Assistant Level)

Abbreviation used:

Task Level		Rating number and their meaning
Significance	:	1- Important; 2-Moderately important; 3-Highly important
Ease	:	1- Easy; 2-Moderately easy; 3- Very easy
Occurrence	:	1-Rerely occurred; 2-Moderately occurred; 3-Frequently occurred

N/A	:	Not Applicable
OS	:	Occupation Standard
FNCCI	:	Federation of Nepalese Chambers of Commerce & Industry
CNI	:	Confederation of Nepalese Industries
FNCSI	:	Federation of Nepali Cottage & Small Industries
FCAN	:	Federation of Contractors' Associations of Nepal
HAN	:	Hotel Association Nepal
ELMS	:	Employers Led Market Secretariat
SWG	:	Sector Working Group
TAC	:	Technical Advisory Committee
SOP	:	Standard Operating Procedure
KU	:	Kathmandu University
MoEST	:	Ministry of Education, Science & Technology
TU	:	Tribhuvan University
CBS	:	Central Bureau of Statics
CTEVT	:	Council of Technical Education and Vocational Training
NSTB	:	National Skill Testing Board
Div.	:	Division
PPE	:	Personal Protective Equipment

List of duties and tasks of the Excavator Operator: level-2

	Soft Skills Area					
SN	Duty statements	Task No	Task statements			
1.	Demonstrate positive attitudes	1.	Manage time for occupational assignment			
		2.	Exhibit empathy with customer and team members			
		3.	Apply the work ethics of excavator operator			
		4.	Respond assignment			
		5.	Give/ Receive feedback and feed forward			
2.	Exhibit interpersonal skills	6.	Listen customers' demands, complaints and other information			
	·	7.	Communicate with others about products and services			
		8.	Coordinate with customers, team members and stakeholders			
		9.	Perform net-working with customers, team and stakeholders			
3.	Demonstrate occupational	10.	Exhibit behavior of team player among the members			
	leadership	11.	Make decision at different situation of the occupation			
		12.	Solve problem encountered in the occupation			
		13.	Take responsibility and accountability of the assignment			
		14.	Develop work plan of excavator operator			
			Core skills area			
SN	Duty statements	Task No	Task statements			
4.	Maintain safety	15.	Wear safety dress			
		16.	Inspect site situation			
		17.	Wear seat belt			
		18.	Prepare site for operation			
		19.	Apply stabilizer for wheel excavator			
		20.	Apply simple first aid for people in accident			
		21.	Use fire extinguisher			
5.	Perform pre-start inspection and	22.	Inspect excavator by walking around			
	simple maintenance	23.	Perform routine inspection of excavator			
		24.	Top-up lubricants			
		25.	Top-up coolant			
		26.	Top-up hydraulic oil			
		27.	Adjust mirror			
		28.	Change fuel filter			
		29.	Perform hand pumping			
		30.	Tight wheel and other nuts			
		31.	Clean air cleaner			
		32. 33.	Clean air filter Tight the loose battery connection			
		33. 34.	Change gear oil			
		3 4 . 35.	Change swing gear oil			
		36.	Add the electrolyte/dist. water of the battery			
		37.	Change bucket teeth			
		38.	Change hose pipe			
		39.	Clean excavator			
6.	Perform post start inspection	40.	Start up the engine			
0.	and simple maintenance	40. 41.	Warm up the hydraulic system			
	and ompto maintonanoe	42.	Lock / unlock hydraulic system			
		43.	Control accelerator of excavator			
		44.	Perform up/down boom			
		45.	Perform in/out arm			
		46.	Open/close bucket/breaker			
		47.	Perform swing of the machine			
		48.	Drive forward/reverse track			
•			•			

		 Follow rigger signals Check brake of the excavator with tyre Check steering of the excavator with tyre Check reverse and other warning system Clean wind screen by wiper Fill grease gun Perform greasing Change the battery Check pin, bushes, sprocket Adjust fan belt for tension Drain water from water separator Replace the idler 	
7.	Inspect working site	62. Identify possible site hazards63. Place safety symbols64. Perform reporting of sites	
8.	Perform basic operation	65. Excavate trench 66. Perform pile stocking 67. Perform back filling 68. Load materials 69. Excavate in C/U turn 70. Perform step cutting 71. Perform square cutting 72. Perform slope cutting 73. Perform pipe laying 74. Perform lift/shift light object / materials 75. Fit breaker in the excavator 76. Perform rock cutting 77. Excavate foundation 78. Perform tunnel cutting 79. Perform tunnel cutting	
9.	Perform transportation	 80. Load excavator in transporter 81. Bind excavator by tochen 82. Unbind the excavator in transporter 83. Unload excavator from transporter 	
10.	Park the excavator	 84. Level the parking area 85. Place attachment on ground 86. Refill fuel 87. Switch off the excavator engine 88. Lock door /windows /ventilation 	
11.	Keep documents/records	 Keep operation records (log book) Keep maintenance records Keep troubleshooting records Keep Safety and Security records 	

Task Competency Standard

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Soft Skills Area:					
Task number: 1					
Task statement:	Manage time for occupation	Manage time for occupational assignment			
Level of task:	Significance	Ease	Occurence		
	3	2	3		
Terminal performance standard	Given Condition				
Related technical knowledge	 Regular duty hours and work plan. Task: Manage time for occupational assignment. Time: N/A. Standard/Criteria: The daily work is started and ended as per given work plan (exhibit punctuality), The work activities are performed as per the given work plan, The task is completed within the given time frame. 				
Related technical knowledge	Knowledge on work pr	ce of time management ority and rescheduling while managing time du	as per the urgency;		

Task number:	2			
Task statement:	Exhibit empathy with customers and team members			
Level of task:	Significance	Ease	Occurence	
	2	2	1	
Terminal performance standard	Given Condition Any incident (Problems, awkward situation or unusual situation) of customer or team members. Task: Exhibit empathy with customers and team members. Time: N/A Standard/Criteria: Feelings (body language, gesture, posture, facial expression) are expressed as per the given incident during the performance; Acted accordingly as per the feelings.			
Related technical knowledge	 Meaning and importance empathy; Different situations of empathy; Points to be considered while exhibiting empathy. 		hy.	

Task number:	3	3		
Task statement:	Apply the work ethics of the excavator operator			
Level of task:	Significance	Ease	Occurence	
	3	2	3	
Terminal performance standard	Given Condition			
	•	Occupational ethics and Code of conduct of organization or standard		
	operating procedure			
	•	Task: Keep work ethics of the excavator operator.		
	Time: N/A			
	Standard/Criteria:			
	 Organisational Code of conduct and occupational ethics are followed; 			
	 Standard Operating F 	 Standard Operating Procedure (SOP) is followed; 		
	 The confidentiality of 	the information is maintain	ned;	
	The performer is satisfaction	sfied and motivated in the	occupation.	
Related technical knowledge	Meaning and importa	nce work ethics;	•	
•	Occupational work et			
	Code of conducts of organization or SOP;			

Task number:	4	4			
Task statement:	Respond assignment rece	Respond assignment received			
Level of task:	Significance				
	3	2	3		
Terminal performance standard	Given Condition:				
	 Any assignment or ta 	sk order.			
	Task: Respond assignment	Task: Respond assignment.			
	Time: N/A				
	Standard/Criteria:				
	The task is responded promptly;				
	The given assignment is noted;				
	The given assignment is completed within the agreed time.				
Related technical knowledge	Types of work and ur	Types of work and urgency;			
	Importance of timely				
	Time requirement of grant and a second a second and	given assignment;			
	Methods of dealing w	-			

Task number:	5	5		
Task statement:	Receive / give feedback and feed forward			
Level of task:	Significance Ease Occurren			
	3	2	3	
Terminal performance standard	Given Condition	Given Condition		
	 Any assignment or ta 	sk order		
	Task: Give/Receive feedba	ck and feed forward		
	Time: N/A			
	Standard/Criteria:			
	The feedback is listened actively;			
	 The feedback and feed forward given is noted; 			
	 Feedback is started v 	with positive part of the pe	rformance;	
	 Constructive feedback 	k is given objectively and	specific;	
	 Digestible amount of 	feedback is given.		
Related technical knowledge	Meaning and importance of feed forward and feedback;			
	Types of feedback;			
	Techniques of receiver	ing and giving feed forwar	d and feedback.	

Task number:	6			
Task statement:	Listen customers demand, complaints or others information			
Level of task:	Significance Ease Occurrence			
	3	2	3	
Terminal performance standard	Given Condition Customer or team member is complaining / reporting. Task: Listen customers demand, complaints or others information. Time: N/A Standard/Criteria: Complaints/ demand and information is listened actively; Response (Nodding the head) is exhibited during active listening; Questions are asked for clarification; Complaints/demands and/or other information are clearly noted; Reporter or complainant is satisfied with excavator operator's listenin			
Related technical knowledge	Importance of activeDifferences betweenTechniques of active	active listening and hearing	ng;	

Task No:	7			
Task statement:	Communicate with others about products and services			
Level of task:	Significance	Significance Ease Occurrence		
	3	2	3	
Terminal performance standard	Given Condition	Given Condition		
	 Information to be con 	nmunicated;		
	 Relevant audience. 			
	Task: Communicate with others about products and services.			
	Time: N/A			
	Standard/Criteria:			
	Voice is clear, pleasant and audible;			
	Visual expressions are natural;			
	 Information shared is 	concise and complete.		
Related technical knowledge	Meaning and importance of effective communication;			
	Effective communication model;			
	Types and means of communication;			
	Techniques of effective communication.			

Task number:	8	8			
Task statement:	Coordinate with customers, team members and stakeholders				
Level of task:	Significance	Significance Ease Occurrence			
	3	2	3		
Terminal performance standard	Given Condition	Given Condition			
	 Agenda or issue or in 	formation to be coordinat	ted;		
	 Team members or re 	levant stakeholders;			
	 Means of coordinatio 	n.			
	Task: Coordinate with custo	Task: Coordinate with customers, team members and stakeholders.			
	Time: N/A				
	Standard/Criteria:				
	 The given agenda, issues or information is shared with respective customers, team members and stakeholders; 				
	 The customers, team members and stakeholders are identified as per given the target receivers; 				
	 Coordination is done 	based on the given mear	ns of coordination.		
Related technical knowledge	 Meaning and importa 				
	 Means and technique 	es of effective coordination	n.		

Task number:	9			
Task statement:	Perform net-working with customers, team and stakeholders			
Level of task:	Significance Ease Occurrence			
	3	1	2	
Terminal performance standard	Given Condition:			
Related technical knowledge	 Meaning and importance of networking; Means of networking; Techniques of effective networking. 			

Task number:	10			
Task statement:	Exhibit behavior of team player among the members			
Level of task:	Significance Ease Occurrence			
	2	1	2	
Terminal performance standard	Given Condition:			
	 Assignment; 			
	 Working team. 			
	Task: Exhibit behavior of team player among the members.			
	Time: N/A			
	Standard/Criteria:			
	Team members are encouraged;			
	Ownership of the work is taken collectively;			
	Cooperative and assertiveness are possessed in the team;			
	Responsibilities and accountabilities are taken.			
Related technical knowledge	Meaning and importance of team work;			
	Characteristics of good team player;			
	Phases of team formation;			
	Tips of effective team	n work.		

Task number:	11	11			
Task statement:	Make decision at different	Make decision at different situation of the occupation			
Level of task:	Significance	Significance Ease Occurrence			
	3	3	3		
Terminal performance standard	Given Condition:				
	 Any assignment with 	possible unusual situation	during the process;		
	 Problem or case and 	Problem or case and time frame.			
	Task: Make decision at diffe	Task: Make decision at different situation of the occupation.			
	Time: N/A	Time: N/A			
	Standard/Criteria:	Standard/Criteria:			
	 Decision is taken with 	nin given time frame;			
	 Desired result is achi 	eved;			
	 Decision has conside 	Decision has considered efficient use of time, money and resources.			
Related technical knowledge	 Meaning and importa 	Marie and Programme of Landers and Programme			
	 Simple decision maki 	ing process.			

Task number:	12				
Task statement:	Solve problem encountered in the occupation				
Level of task:	Significance	Occurrence			
	3	3	3		
Terminal performance standard	Given Condition:	Given Condition:			
	 Any problem or case 	and time frame.			
	Task: Solve problem encou	ntered in the occupation.			
	Time: N/A	·			
	Standard/Criteria:				
	 Problem is analyzed; 				
	 Possible solutions are 	e identified;			
	 Effective solution is s 	selected;			
	 Solution has conside 	ered efficient use of time, r	money and resources;		
	 Problem is solved in 	given time frame;	•		
	 Desired result is achi 				
Related technical knowledge	 Meaning and importa 	Meaning and importance of problem solving;			
	 List of potential probl 	ems in the occupation exc	cavator operator;		
	 General problem solving techniques. 				

Task number:	13	13			
Task statement:	Take responsibility and ac	Take responsibility and accountability of the assignment			
Level of task:	Significance	Significance Ease Occurrence			
	3	2	3		
Terminal performance standard	Given Condition:	Given Condition:			
	 Assignment; 				
	 Job description. 				
	Task: Take responsibility ar	Task: Take responsibility and accountability of the assignment			
	Time: N/A				
	Standard/Criteria:				
	 All team members exhibited dedication to the assignment; 				
	 Every member has t 	Every member has taken their respective responsibilities and attempted			
	to complete the assignment	gnment;	·		
	 The assignment is contained. 	ompleted in time;			
	The ownership of the results of the assignment are taken collectively.				
Related technical knowledge	 Meaning of responsible 	Meaning of responsibility and accountability;			
	 Importance of respor 	nsibility and accountability	for excavator operator.		

Task No:	14		
Task statement:	Develop work plan of excavator operator		
Level of task:	Significance Ease Occurren		Occurrence
	3	2	3
Terminal performance standard	Given Condition:		
	 List of tasks and their 	r priority order;	
	 Planning forms and forms 	ormat;	
	 Job description. 		
	Task: Develop work plan of	excavator operator.	
	Time: N/A		
	Standard/Criteria:		
	 Plan is developed as 	per given task;	
	 Planning is done in g 	iven forms and formats;	
	 Activities are listed se 	equentially in the given for	ms and format;
	 The start time and er 	nd time of every activity is r	mentioned;
	 The responsible pers 	on for the activity is mention	oned in the plan;
	 The work plan has of 	considered efficient use of	resources (time, money,
	and people).		
Related technical knowledge	 Meaning of planning; 		
	 Importance of planning 	ng;	
	 Different planning too 	ols;	
	Points to be consider	ed while planning;	

	Core Skills Area			
Task number:	15			
Task statement:	Wear safety dress			
Level of task:	Significance Ease		Occurence	
	3	3	3	
Terminal performance standard	Given Condition:			
	 Assignment or any dut 	ty periods.		
	Task: Wear safety dress.			
	Time: 10 minutes /safety dre	SS.		
	Standard/Criteria:			
	 Helmet is tightened; 			
	 Boot lace e is fixed; 			
	 Jockie jeep is closed; 			
	Glove is used;			
	 Safety goggle is used; 			
	 Ear plug is used; 			
	 Mask is used. 			
Related technical knowledge	 Meaning and important 	ice of safety for excavator of	perator;	
	 Types of safety equipr 	ment and materials;		
	Points to be considered while using safety gears;			
	 Care of safety gears. 			
Safety/precaution	 Zip should be closed; 			
	Bootlace should be tig	htened.		
Tools, equipment and materials		ggle, mask, gloves, safety ja	icket, helmet.	

Task number:	16		
Task statement:	Inspect site situation		
Level of task:	Significance	Ease	Occurence
	3	2	2
Terminal performance standard	Given Condition:		
	 Site or location of assi 	gnment;	
	 Land area to be cover 	ed;	
	 Desired design of the 	assignment.	
	Task: Inspect site situation.		
	Time: 5-10 minutes /100 sq m area. (depending on land situation)		
	Standard/Criteria:		
	The site is inspected for geographical condition (slope, vertical, horizontal area) of the site;		
	The site is inspected for the existence of obstacles, high voltage lines etc.;		
	The inspection report given by the performer is matched with the inspection done by the supervisor.		
Related technical knowledge	Meaning and importar	nce of site inspection;	
	Points to be considered.	ed during inspection;	
	 Safety precaution to be taken during site inspection. 		
Safety/precaution	 Apply safety gear. 	·	
Tools, equipment and materials	Safety gear.		

Task number:	17		
Task statement:	Wear seat belt		
Level of task:	Significance Ease Occurence		Occurence
	3	3	3
Terminal performance standard	Given Condition:		
	 Excavator with safety to 	pelt, inspected site;	
	 Operation hour of the example. 	excavator.	
	Task: Wear seat belt.		
	Time: 1 minute /seat belt.		
	Standard/Criteria:		
	Seat belt is tightened;		
	Seat belt is locked;		
	Seat belt is free from twisted;		
	 Seat belt is wear throughout the given operation hour. 		our.
Related technical knowledge	Meaning and importance of seat belt;		
	 Procedure of applying 	seat belt.	
Safety/precaution	Use seat belt in each operation of excavator.		
Tools, equipment and materials	 Excavator with seat be 	lt.	

Task number:	18		
Task statement:	Prepare site for operation		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition: Site or location, assignment, area to be prepared and dumping/filling site. Task: Prepare site for operation. Time: N/A (depends on the geograhical situation, types and area of the site). Standard/Criteria: Location is identified as per the given assignment; Top layer of the soil in the given area of the site is removed;		
	 All obstacles in the operation area are removed; Excess materials are dumped or filled in the given location; The site is levelled as per the given assignment; Demarcation of the operation area is done. 		
Related technical knowledge	 Meaning and importance of site preparation; Points to be considered while preparing site operation. 		
Safety/precaution	Wear safety gear, observed site for safety concern.		
Tools, equipment and materials	Excavator, pegs, safet	ty gears, quick lime, safety g	jear.

Task number:	19		
Task statement:	Apply stabilizer for wheel excavator		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition:		
	 Site or location,; 		
	Task: Apply stabilizer for wheel excavator		
	Time: 2 minutes /stablizer		
	Standard/Criteria:		
	Machine is fixed;		
	 Stabilizer is fixed in the 	e given site or location or poi	int.
Related technical knowledge	Meaning and importance of applying stabilizer;		
	Procedure of stabilization.		
Safety/precaution	Apply safety gear.		
Tools, equipment and materials	 Excavator. 		

Task number:	20		
Task statement:	Apply simple first aid for people in accident		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition:		
	 When people in accide 	ent;	
	 Standard procedure of 	f first aid service;	
	First aid box/kit.		
	Task: Apply simple first aid for people in accident.		
	Time: 10 minutes /person in incident.		
	Standard/Criteria:		
	 The injured person is diagnosed for airway, breadth and consensus. (ABC); 		
	The first aid is applied as per the given standard procedure.		
Related technical knowledge	 Meaning and important 	ice of first aid;	
	 Potential accidents during operating excavator; 		
	Standard procedures/check lists of providing first aid in different accident case.		
Safety/precaution	Apply first aid only when you are confident.		
Tools, equipment and materials	 First aid kit, water 	·	

Task number:	21		
Task statement:	Use fire extinguisher		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition:		
		inguisher and burning situat	ion.
	Task: Use fire extinguisher.		
	Time: 1 minute /fire extinguis	sher.	
	Standard/Criteria:	1 10 1	
	· ·	is escaped with in one minu	
		ed with in one minute to put	off the fire;
	The fire is put off in the The incident is reported.	•	
Related technical knowledge	The incident is reported Magning and important		hor
Related technical knowledge		ce of applying fire extinguisl	ner,
	Procedure of using fire Points to be consider.		oor
Safety/precaution	 Points to be consider while applying fire extinguisher. Escape immediately from the burning area, use fire extinguisher to put off the 		
Salety/precaution	Escape immediately frighting fire and put on the fire		e extinguisher to put on the
Tools, equipment and materials	Fire extinguisher, manual for use of fire extinguisher,		
Task number:	22		
Task statement:	Inspect excavator by walking around		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition:		
	 parked excavator; 		
	 Inspection guideline / e 		
	Task: Inspect excavator by w	alking around.	
	Time: 2 minutes /inspection.		
	Standard/Criteria:		
	Given excavator is inspected;		the leavest and done by the
	 The inspection done by the performer is same as the inspection done by the supervisor. 		
Related technical knowledge		paration inspection of excav	/ator;
	Standard procedure of inspection of excavator.		
Safety/precaution	 Apply safety gear. 		
Tools, equipment and materials	Maintenance tool kit.		

Task number:	23		
Task statement:	Perform routine inspection of excavator.		
Level of task:	Significance	Ease	Occurence
	3	3	2
Terminal performance standard	Given Condition:		
	 Regular operated exca 	vator;	
	 Standard checklist of re 	outine inspection.	
	Task: Perform routine inspec	tion of excavator.	
	Time: 10 minutes./inspection.		
	Standard/Criteria:		
	Mobil, water, hydraulic, gear oil, air filter and fuel oil are checked and reported;		
	 Inspection report prepared supervisor. 	pared and is matched wit	h inspection made by the
Related technical knowledge	Meaning and importan	ce of routine checkup;	
	 Meaning and use of M 	obil, water, hydraulic, gear o	oil, air filter and fuel oil
	Key points of routine checkup;		
	 Standard checklist of re 	outine inspection.	
Safety/precaution	Handle the tools safely, wear safety gear.		
Tools, equipment and materials	Safety gear, tool kit, dr	y cloth.	

Task number:	24		
Task statement:	Top-up lubricants		
Level of task:	Significance Ease Occurence		Occurence
	3	3	3
Terminal performance standard	Given Condition:		
	 Excavator that was inst 	spected and reported to top-	up lubricant;
	 Specified lubricant. 		
	Task: Top-up lubricants.		
	Time: 30 minutes /event		
	Standard/Criteria:		
	The expiry date of the lubricant is checked.		
	The lubricant is filled up to the mark;		
	O - ring is tight and in their position;		
	Lubricant is filled up without spilling.		
Related technical knowledge	Meaning and importance of top-up lubricants;		
	Requirement of top-up lubricants;		
	Procedure for top-up lubricants.		
Safety/precaution	Excavator should be in levelled or free from tilt.		
Tools, equipment and materials	Lubricant, slide wrench	h, alien-key, pieces of cloths) .

Task number:	25		
Task statement:	Top-up coolant		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Task: Top-up coolant. Time: 5 minutes /event. Standard/Criteria: • The expiry date of the	id date is filled up to the mocked;	

Related technical knowledge	 Meaning and importance of coolant; When to perform top-up of coolant; Points to be consider while performing top-up coolant; Standard procedure of top-up coolant.
Safety/precaution	Expiry date of coolant should be checked.
Tools, equipment and materials	Coolant, water.

Task number:	26					
Task statement:	Top-up hydraulic oil					
Level of task:	Significance Ease Occurence					
	3 3 3					
Terminal performance standard	Given Condition:					
	 Excavator that was inst 	spected and reported to top-	up hydraulic oil;			
	 Hydraulic oil. 					
	Task: Top-up hydraulic oil.					
	Time: 30 minutes /event					
	Standard/Criteria:					
	 Performance is within the given time; 					
	The expiry date of the hydraulic oil is checked;					
	The hydraulic oil is filled up to the mark;					
	O-ring, nut bolt and plate are tightened;					
	Hydraulic oil is filled up without spilling.					
Related technical knowledge	 Meaning and importar 	ice of top-up of hydraulic oil;				
	When to perform top-up of hydraulic oil;					
	Points to be consider while performing top-up of hydraulic oil;					
	Standard procedure of top-up of hydraulic oil.					
Safety/precaution	Apply safety gear.					
Tools, equipment and materials	Alien key, slide wrench, muslin cloth.					

Task number:	27		
Task statement:	Adjust mirror		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition:		
	 Excavator with unadjuste 	ed mirror.	
	Task: Adjust mirror		
	Time: 5 minutes /mirror.		
	Standard/Criteria:		
	Side mirrors are cleaned;		
	 Side mirrors are adjusted till the intended side view is visible; 		ew is visible;
	After adjustment, the significant control of the significant control o		,
Related technical knowledge	Meaning and importance		
•	Standard procedure of a		
Safety/precaution	Turn the side mirrors gently.		
Tools, equipment and materials	Excavator with side mirror.		

Task number:	28			
Task statement:	Change fuel filter			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition: • Excavator with damaged fuel filter. Task: Change fuel filter. Time: 5 minutes /fuel filter. Standard/Criteria: • Damaged fuel filter is replaced with new one; • Alignment is vertical; • O-ring is tightened;			
Related technical knowledge	 Fuel filter is free from damage. Meaning and importance of fuel filter; When to change fuel filter; Standard procedure of changing fuel filter. 			
Safety/precaution	Apply safety gear, handle the fuel filter safely.			
Tools, equipment and materials	Filter belt, fuel filter, muslin cloth.			

Task number:	29				
Task statement:	Perform hand pumping				
Level of task:	Significance	Ease	Occurence		
	3	2	3		
Terminal performance standard	Given Condition:				
	 Excavator with obstacl 	e in delivery pipe in passing	fuel.		
	Task: Perform hand pumping	g			
	Time: 10 minutes /pumping.				
	Standard/Criteria:				
	Obstacles in the delivery pipe is removed;				
	Pump cap is locked;				
	Engine is started when tested.				
Related technical knowledge	Meaning and importance of hand pumping;				
	Points to be considered while doing hand pumping;				
	Procedure of hand pumping.				
Safety/precaution	Apply safety gear, give time to cool down the engine prior hand pumping.				
Tools, equipment and materials	Muslin cloth, wrench.				

Task number:	30				
Task statement:	Tight wheel and other nuts				
Level of task:	Significance	Ease	Occurence		
	3	3	3		
Terminal performance standard	Given Condition:				
	 Excavator with loosen 	nuts and different sized wre	ench set.		
	Task: Tight wheel and other	nuts.			
	Time: 30 minutes /wheel.				
	Standard/Criteria:				
	 Number of loose nuts in the given excavator including wheel identified: 				
	Right sized wrench is	used for tightening the nuts			
	All loose nuts including wheel nuts are tight, when tested.				
Related technical knowledge	Meaning and functions of nuts;				
	 Reasons of loose nuts 				
	Standard procedure of fighting nuts.				
Safety/precaution	Apply safety gear.				
Tools, equipment and materials	 Nuts, different sized w 	renches, wheel, tool kits.			

Task number:	31				
Task statement:	Clean air cleaner				
Level of task:	Significance Ease Occurence				
	3	3	3		
Terminal performance standard	Given Condition:				
	 Excavator with dirty/filt 	hy air cleaner.			
	Task: Clean air cleaner.				
	Time: 5 minutes /event or air cleaner				
	Standard/Criteria:				
	 Air cleaner is free from dirt, dust or filth and damage. 				
Related technical knowledge	Meaning and importance of air cleaner;				
	When to clean air cleaner;				
	Standard procedure of cleaning air cleaner.				
Safety/precaution	Apply safety gear, handle the air cleaner safely/gently by soft cloths.				
Tools, equipment and materials	Muslin cloth, water.				

Task number:	32				
Task statement:	Clean air filter				
Level of task:	Significance Ease Occurence				
	3	2	3		
Terminal performance standard	Given Condition:				
	 Excavator with dusty at 	nd filthy air filter.			
	Task: Clean air filter.				
	Time: 10 minutes /air filter				
	Standard/Criteria:				
	 Air filter is free from any dust particles and filth when observed; 				
	Alignment is horizontal and locked;				
	Air filter is free from damage.				
Related technical knowledge	Meaning and importance of air filter;				
	When to clean air filter or sign of cleaning time of air filter;				
	Standard procedure of cleaning air filter.				
Safety/precaution	Apply safety gear, handle the tool, and handle gently the air filter.				
Tools, equipment and materials	Muslin cloth, compress	sor machine.			

Task number:	33				
Task statement:	Tight the loose battery connection				
Level of task:	Significance Ease Occurence				
	3	2	2		
Terminal performance standard	Given Condition:				
	 Excavator with loose b 	attery connection.			
	Task: Tight the loose battery	connection.			
	Time: 5 minutes /battery.				
	Standard/Criteria:				
	 The connection are tight when tested; Safety precaution are followed; Cover is placed and tightened; The terminal nut is free from slip; Terminal connection is greased; 				
	Working place is cleaned.				
Related technical knowledge	Meaning and importance of battery in vehicle;				
_	Safety points when tightening battery connection;				
	Reasons of greasing;				
	5 5	f tightening loose battery cor	nnection.		
Safety/precaution	Apply safety gear, handle the tool safely.				
Tools, equipment and materials	Wrench, grease, muslin cloth.				

Task number:	34			
Task statement:	Change gear oil			
Level of task:	Significance Ease Occurence			
	3	2	2	
Terminal performance standard	Given Condition:			
	 Excavator when prescribed hour operated (usually 500 hours). Task: Change gear oil. Time: 1 hour /event Standard/Criteria: Nuts and bolts are opened without damage; Old or damaged gear oil is poured out into a vessel from the given excavator; Old or damaged gear oil is stored in safe place; Surrounding of the oil changing hole is cleaned prior pouring the new fresh gear oil; The gear oil is poured up to the mark; The gear oil is poured without spill on the floor; 			
Related technical knowledge	 Nut and bolts are tightened back without any damage. Meaning and importance of gear oil; 			
	Types of gear oil;	<i>y</i> ,		
	Points to be consider when changing gear oil;			
	Standard procedure of changing gear oil.			
Safety/precaution	Apply safety gear, handle the tool safely, handle gear oil safely.			
Tools, equipment and materials	Safety gear, alien-key oil.	, muslin cloth, brush, funnel,	delivery pipe, GI-pipe, gear	

Task number:	35				
Task statement:	Change swing gear oil				
Level of task:	Significance Ease Occur				
	3	1	3		
Terminal performance standard	Given Condition:				
		ribed hour operated (usuall	y 500 hours).		
	Task: Change swing gear oil	•			
	Time: 1 hour /event				
	Standard/Criteria:				
	Nuts and bolts are ope				
		g gear oil is poured out i	nto a vessel from the given		
	excavator				
		gear oil is stored in safe pl			
	Surrounding of the oil changing hole is cleaned prior pouring the new				
	swing gear oil;The swing gear oil is poured up to the mark;				
		•	00"		
		oured without spill on the fl			
Related technical knowledge	 Nut and bolts are tightened and cap is locked without any damage. Meaning and importance of swing gear oil; 				
Related technical knowledge			goor		
Safety/precaution		changing gear oil of swing	•		
	Apply safety gear, handle the tool safely, handle gear oil gently, use funnel.				
Tools, equipment and materials	Gear oil;				
	• Funnel;				
	• Cloth;				
	Wrench; Out: The mall out.				
	Goti-T-handle;				
	 Safety gear. 				

Task number:	36			
Task statement:	Add the electrolyte/distilled water in the battery			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition: The level of electrolyte and distilled water is reduced. Task: Add the electrolyte/distilled water in the battery. Time: 20 minutes /change Standard/Criteria: The level of the electrolyte and distilled water is filled up to the mark; The distilled water is filled in the battery without spilling on the floor; The alignment and position of cap is horizontal; The cap of battery is tightened; Cap is free from damage.			
Related technical knowledge	 Meaning and importance of distilled water and electrolyte; Condition to add distilled water and electrolyte; Standard procedure of adding distilled water and electrolyte. 			
Safety/precaution	Apply safety gear, handle the tool safely, handle electrolyte carefully.			
Tools, equipment and materials	Screw driver / coin, distilled water, electrolyte, muslin cloth, wrench.			

Task number:	37				
Task statement:	Change bucket teeth				
Level of task:	Significance	Occurence			
	3	2	3		
Terminal performance standard	Given Condition:				
	 Bucket with blunt teeth 	, broken teeth, wear and tea	r teeth.		
	Task: Change bucket teeth.				
	Time: 30 minutes /change.				
	Standard/Criteria:				
	Washer is placed;				
	Changed teeth is locked;				
	Safety adopted;				
	Old teeth is stored.				
Related technical knowledge	Meaning and functions of bucket teeth;				
	Reasons of changing bucket teeth;				
	Standard procedure of changing bucket teeth.				
Safety/precaution	Apply safety gear, handle the tool safely, handle bucket teeth safely				
Tools, equipment and materials	Hammer, new bucket teeth, lever rod, teeth lock, washer.				

Task number:	38			
Task statement:	Change hose pipe			
Level of task:	Significance	Ease	Occurence	
	3	2	3	
Terminal performance standard	Given Condition:		•	
	 Excavator with leakage of 	r broken/cracked hose p	ipe.	
	Task: Change hose pipe.	·	•	
	Time: 1 hour /change (depend	s on place of hose pipe)		
	Standard/Criteria:			
	Ends are aligned as per the port;			
	Fitted hose pipe is free from leakage;			
	 Fitted hose pipe is tight; 	•		
	Working area is cleaned			
	Damaged holes pipe is s			
Related technical knowledge	Meaning and importance	e of hose pipe;		
	Types and size of hose pipe;			
	Reasons and standard procedure of changing hose pipe.			
Safety/precaution	Apply safety gear, handle the tool safely, handle hose pipe safely			
Tools, equipment and materials	Hose pipe, tool kit, alien-key, wrench, cloth, water, clamp, sealing liquid.			

Task number:	39				
Task statement:	Clean excavator				
Level of task:	Significance Ease Occurence				
	3	3	3		
Terminal performance standard	Given Condition:				
	 When excavator is dirty 	and muddy.			
	Task: Clean excavator.				
	Time: 2 hours /excavator.				
	Standard/Criteria:				
	 Excavator is cleaned in outer and inner side of the cabin and filth free; 				
	 Excavator parts are safe and undamaged; 				
	Working area is cleaned;				
	Resources are used wisely.				
Related technical knowledge	Importance of cleaning of excavator;				
	Standard procedure of cleaning excavator.				
Safety/precaution	 Apply safety gear, handle the tool safely, apply resource wisely. 				
Tools, equipment and materials	 Water, brush, muslin c 	oth, diesel, surf, bucket, no	ozzle pipe, motor, electricity.		

Task number:	40				
Task statement:	Start up the engine				
Level of task:	Significance Ease Occuren				
	3	3	3		
Terminal performance standard	Given Condition:				
	 Excavator with pre-star 	tup inspection and maintena	ance completed.		
	Task: Start up the engine .				
	Time: 1 minut /start up				
	Standard/Criteria:				
	 Clutch pedal is pressed before startup of the engine; 				
	All gears are placed in neutral position;				
	Key is inserted in the key hole and turned clockwise;				
	 Engine is started within 	n the given time.			
Related technical knowledge	Points to be consider when performing startup engine.				
Safety/precaution	Assure to perform start up the engine;				
	 Keep all gears in neuting 	ral position prior start up the	engine.		
Tools, equipment and materials	 Key and excavator. 				

Task number:	41				
Task statement:	Warm up the hydraulic system				
Level of task:	Significance Ease Occurence				
	3	3	3		
Terminal performance standard	Given Condition:				
	 Excavator with startup 	engine;			
	Hydraulic system warm up Time (5')				
	Task: Warm up the hydraulic system.				
	Time: 5 minutes /event				
	Standard/Criteria:				
	 Hydraulic system is wa 	armed up within the given tir	ne period (5').		
Related technical knowledge	Meaning and importance of warming up;				
	Points to be consider during warming up;				
	Procedure of warming up hydraulic system.				
Safety/precaution	Apply safety gear.				
Tools, equipment and materials	 Excavator. 				

Task number:	42				
Task statement:	Lock / unlock hydraulic system				
Level of task:	Significance Ease Occurence				
	3	3	3		
Terminal performance standard	Given Condition:				
	Excavator after warming up.				
	Task: Lock / unlock hydraulic system.				
	Time: 5 minutes /event				
	Standard/Criteria:				
	 Hydraulic system is operated when system is unlocked; 				
	Hydraulic system is stopped when system is locked.				
Related technical knowledge	Meaning and importance of hydraulic system;				
	Points to be consider while performing lock/unlock of hydraulic system.				
Safety/precaution	Apply safety gear during the process.				
Tools, equipment and materials	Excavator.				

Task number:	43			
Task statement:	Control accelerator of excavator			
Level of task:	Significance	Occurence		
	3	2	3	
Terminal performance standard	Given Condition: • After hydraulic lock on; Task: Control accelerator of excavator. Time: N/A Standard/Criteria: • Smooth transition of the speed; • Power is decreased and increased as per the requirement; • The transition speed of the excavator is smooth.			
Related technical knowledge	 Meaning and importance of accelerator; Points to be consider while power increase and decrease. 			
Safety/precaution	Apply safety gear during the operation.			
Tools, equipment and materials	Excavator.			

Task number:	44			
Task statement:	Up/down boom			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition: • After warming up of excavator. Task: Perform up/down boom. Time: 2 minutes. Standard/Criteria:			
	 Machine is free from vibration when performing up/down boom; Machine is in the ground level when boom is down; Safety precautions are followed. 			
Related technical knowledge	 Meaning and importance of boom up/down; Points to be consider while up/down boom; Standard procedure of up/down boom. 			
Safety/precaution	Apply safety gear, observe surrounding while up down boom.			
Tools, equipment and materials	Excavator.			

Task number:	45				
Task statement:	Perform in/out arm				
Level of task:	Significance Ease Occurence				
	3	3	3		
Terminal performance standard	Given Condition: • Excavator after warming up. Task: Perform In/out arm. Time: 2 minutes /in or out				
	 Standard/Criteria: Excavator is free from vibration when performing in/out arm; Excavator is in the ground level when arm is performed in/out; The in/out arm performance is smooth and noise free; Safety precautions are followed. 				
Related technical knowledge	 Meaning and importance of in/out arm; Points to be consider while performing in/out arm; 				
Safety/precaution	Apply safety gear.				
Tools, equipment and materials	Excavator.				

Task number:	46			
Task statement:	Open/close bucket/breaker			
Level of task:	Significance	Occurence		
	3	2	3	
Terminal performance standard	Given Condition:			
	 After in/out of the bucket arm of the excavator. Task: Open/close bucket/breaker. Time: 2 minutes /event. 			
	 Standard/Criteria: Opening and closing p Opening and closing sound/noise. 	aker is smooth; aker process is free from		
Related technical knowledge	 Meaning and importance of open/close bucket/breaker; Procedure of open/close of bucket/breaker. 			
Safety/precaution	Apply safety gear.			
Tools, equipment and materials	Excavator.			

Task number:	47			
Task statement:	Perform swing of the machine			
Level of task:	Significance Ease Occurence			
	3	3	3	
Terminal performance standard	Given Condition:			
	Old plant in vase;			
	 Roots are observed in 	the soil surface;		
	 Plant showing stunted 	and restarted growth.		
	Task: Perform swing of the machine.			
	Time: N/A			
	 Standard/Criteria: Machine is swing freely without vibration; Swing is performed when the machine is in the ground level; Arm and bucket are moved freely without any obstacles; Safety precautions are followed. 			
Related technical knowledge	 Meaning and importance of swing; Points to be consider while swing; Procedure of swing. 			
Safety/precaution	Apply safety gear, handle tools safely; caution with rotation of bucket.			
Tools, equipment and materials	Excavator.			

Task number:	48			
Task statement:	Drive forward/reverse track			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Driving to the working 	site of the excavator.		
	Task: Drive forward/reverse track.			
	Time: N/A			
	Standard/Criteria:			
	 Excavator is driven freely without vibration; 			
	Excavator is driven in track;			
	 Other functions are free 	e.		
Related technical knowledge	Meaning and importance of driving reverse and forward;			
	 Points to be considered while driving reverse and forward. 			
Safety/precaution	Apply safety ware.			
Tools, equipment and materials	Excavator.			

Task number:	49				
Task statement:	Follow rigger signals				
Level of task:	Significance Ease Occurence				
	3	2	3		
Terminal performance standard	Given Condition:				
	 Not observable site from 	om the cabin of the excavat	or.		
	Task: Follow rigger signals.				
	Time: N/A				
	Standard/Criteria:				
	The given rigger signal is followed by the excavation operator.				
Related technical knowledge	Rigger signal and its importance;				
	 Points to be consider while following rigger signal; 				
	Procedure of following rigger signal.				
Safety/precaution	Apply safety gears.				
Tools, equipment and materials	Excavator, rigger person.				

Task number:	50			
Task statement:	Check brake of the excavator with tyre			
Level of task:	Significance Ease Occurence			
	3	3	3	
Terminal performance standard	Given Condition: • Excavator with tyre.			
	Task: Check brake of the excavator with tyre. Time: 5 minutes /checking			
	Standard/Criteria:			
	The brake pedal of the given excavator is pressed;			
	The excavator is stopped after press of the brakes;			
	The reporting of performer is exactly matching with the result obtained by the supervisor when tested.			
Related technical knowledge	Break system in excav	vator and its importance;		
	Types of brake system;			
	Points to be consider while using brake.			
Safety/precaution	Apply safety gears, use break smoothly.			
Tools, equipment and materials	 Excavator having tyre 	•		

Task number:	51			
Task statement:	Check steering of the excavator with tyre			
Level of task:	Significance Ease Occurence			
	3	3	3	
Terminal performance standard	Given Condition:			
	 Any excavator with tyr 	e;		
	Task: Check steering of excavator with tyre. Time: 2 minutes /checking			
	Standard/Criteria: The tyre of the excavator is moved to the intended direction when the steering is rotated clockwise/anticlockwise direction; The reporting of performer is matching with the observation/test result of the supervisor.			
Related technical knowledge	Meaning and importance of steering;			
	Points to be consider while using steering.			
Safety/precaution	 Apply seat belt, observe right, left and forward while using steering. 			
Tools, equipment and materials	Excavator with tyre.			

Task number:	52				
Task statement:	Check reverse and other warning system				
Level of task:	Significance Ease Occurence				
	3	3	3		
Terminal performance standard	Given Condition:				
	 Excavator. 				
	Task: Check reverse and other warning system.				
	Time: 2 minutes /checking				
	Standard/Criteria:				
	Reverse and other warning system of the excavator is checked and reported;				
	 Reporting is matching with the observation/test result of the supervisor. 				
Related technical knowledge	Meaning and importance of reverse and other warning system;				
	Types of different warning system;				
	Points to be consider while checking warning system.				
Safety/precaution	Apply safety gears.				
Tools, equipment and materials	 Excavator with tyre. 				

Task number:	53			
Task statement:	Clean wind screen by wiper			
Level of task:	Significance Ease Occurence			
	3	3	3	
Terminal performance standard	Given Condition:			
	 Excavator. 			
	Task: Clean wind screen by	wiper.		
	Time: 3 minutes /event			
	Standard/Criteria:			
	 The wipers are moved smoothly; 			
	 Wind screen is cleaned within the given time; 			
	The visibility through wind screen is clear after cleaning;			
	The wiper is switched off after completion of cleaning;			
	 Remaining parts of wi 	nd screen is cleaned manua	lly.	
Related technical knowledge	 Meaning and importar 	nce of windscreen;		
	 Functions of wiper; 			
	 Points to be consider while cleaning wind screen by wiper; 			
	Procedure of cleaning wind screen by wiper.			
Safety/precaution	Apply safety gear, handle wind screen carefully.			
Tools, equipment and materials	Muslin cloth (Jute), water, excavator.			

Task number:	54				
Task statement:	Fill grease gun				
Level of task:	Significance Ease Occurence				
	3	2	3		
Terminal performance standard	Given Condition:				
	 Empty grease gun. 				
	Task: Fill grease gun.				
	Time: 5 minutes /grease gun.				
	Standard/Criteria:				
	 Grease gun is filled (1 kg) without spilling grease on the floor; 				
	Cap is tightened after filling grease;				
	Grease gun is free from air sack.				
Related technical knowledge	Meaning and importance grease gun;				
	Points to be considered while filling grease gun;				
	Procedure of filling grease gun.				
Safety/precaution	 Apply safety gear, carefully observe placing of machine / excavator. 				
Tools, equipment and materials	Grease, grease gun, muslin cloth, water and soap.				

Task number:	55				
Task statement:	Perform greasing				
Level of task:	Significance Ease Occurence				
	3	2	3		
Terminal performance standard	Given Condition:				
	 Routine work schedul 	e and every 3 hrs. of operati	on.		
	Task: Perform greasing.				
	Time: 30 minutes /event or excavator.				
	Standard/Criteria:				
	 Grease is observed in periphery of the joints; 				
	Sound is reduced when tested or operated.				
Related technical knowledge	Meaning and importance greasing;				
	Types of grease;				
	Points to be consider while greasing;				
	Procedure of greasing.				
Safety/precaution	Apply safety gear				
Tools, equipment and materials	Greasing gun, safety gear, grease, excavator, nipple, muslin cloth.				

Task number:	56			
Task statement:	Change the battery			
Level of task:	Significance Ease Occurence			
	3	2	2	
Terminal performance standard	Given Condition:			
	 Troubleshooted dama 	ged battery of the excavator	r.	
	Task: Change the battery.			
	Time: 30 minutes /battery.			
	Standard/Criteria:			
	 Old/damaged battery is removed safely; 			
	 Positive and negative terminals of the battery are connected tightly with respective poles/cables; 			
	Old or damaged battery is stored safely;			
	Working area is cleaned.			
Related technical knowledge	Meaning and importance changing battery;			
	 Needs of changing of 	battery;		
	Points to be consider while changing battery;			
	Procedure of changing battery.			
Safety/precaution	Apply safety gears, consider right poles for right cable.			
Tools, equipment and materials	Wrench, new battery,	muslin cloth, grease.		

Task number:	57				
Task statement:	Check pin, bushes, sprocket				
Level of task:	Significance Ease Occurence				
	3	2	3		
Terminal performance standard	Given Condition:				
	 Excavator at routine c 	heckup of excavator.			
	Task: Check pin, bushes, sprocket.				
	Time: 5 minutes /checking				
	Standard/Criteria:				
	Observation report given by performer is matching with the observation done				
	by the supervisor.				
Related technical knowledge	Meaning and importance pin, bushes and sprocket;				
	Points to be consider during checkup;				
	Procedure of checkup.				
Safety/precaution	Apply safety gears, never use finger while checking.				
Tools, equipment and materials	Screw driver, excavate	or.			

Task number:	58			
Task statement:	Adjust fan belt for tension			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Excavator with loose fa 	ın belt.		
	Task: Adjust fan belt for tension. Time: 30 minutes /adjustment Standard/Criteria: Fan belt is tight when tested; High pitch sound is heard when blicked; Nuts are tightened;			
Related technical knowledge	 Working area is cleaned. Meaning and importance of fan belt; Points to be consider while tightening fan belt; Procedure of tightening fan belt. 			
Safety/precaution	Apply safety gear.			
Tools, equipment and materials	Wrench, excavator, mu	ıslin cloths.		

Task number:	59			
Task statement:	Drain water from water separator			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	Observed water in the	water separator of the excava	tor.	
	Task: Drain water from water	separator.		
	Time: 2 minutes /water separator.			
	Standard/Criteria:			
	 Separator is free from water when observed; 			
	Drain plug is tighten after water is drained off;			
	Working area is cleaned.			
Related technical knowledge	Importance of draining	water from water separator;		
	 Complication of water a 	available in the water separato	or for the engine;	
	Safety precaution during draining of water from water separator;			
	Procedure of draining water.			
Safety/precaution	Apply safety gears, tight the drain plug cautiously.			
Tools, equipment and materials	Muslin cloth, excavator, plier.			

Task number:	60			
Task statement:	Replace the roller			
Level of task:	Significance Ease Occurence			
	3	1	3	
Terminal performance standard	Given Condition:			
	 Reported wear and tea 	r of rollers of the excavator.		
	Task: Replace roller.			
	Time: 30 minutes /roller			
	Standard/Criteria:			
	Nuts are tightly tightened;			
	 Roller is rotated in both side when tested; 			
	 Alignment of roller is in horizontal/original position. 			
Related technical knowledge	 Meaning and important 	ce of roller;		
	 Reasons for replacement 	ent of roller;		
	Types of roller found as per the company and machine;			
	Procedure of changing roller.			
Safety/precaution	Apply safety gears, handle with care for the roller.			
Tools, equipment and materials	New roller, wrench, hammer, Gl-pipe, goti handle (heavy), excavator.			

Task number:	61			
Task statement:	Replace the idler			
Level of task:	Significance Ease Oc			
	3	1	3	
Terminal performance standard	Given Condition:			
	 Reported wear and tea 	r of idler of the excavator.		
	Task: Replace the idler.			
	Time: 3 hours /excavator (ass	sistant needed).		
	Standard/Criteria: Nuts are tight;			
	Alignment is in original position;			
	 Chain is connected; 			
	 Greasing is done after 	replacement;		
	 Idler is rotated straight 	forward when tested.		
Related technical knowledge	 Meaning and important 	ce of idler in the excavator;		
	 Types and size of idler 	found in the market;		
	Procedure of replacing idler of excavator.			
Safety/precaution	Apply safety gear.			
Tools, equipment and materials	Gall, hammer, goti handle, tochen, grease, grease gun, five assistants, rope, excavator.			

Task number:	62			
Task statement:	Identify possible site hazards			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Site and location. 			
	Task: Identify possible site h	azards.		
	Time: Depends on area and	distance.		
	Standard/Criteria:			
	The reporting of the performer is as per the observation done by the			
	supervisor.			
Related technical knowledge	Importance of site inspection before operation;			
	Safety precaution while inspection of the site;			
	Procedure of observation and reporting.			
Safety/precaution	Apply safety gears.			
Tools, equipment and materials	Safety gears, sickle / I	khukuri		

Task number:	63			
Task statement:	Place safety symbols			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Given site of operation 	١.		
	Task: Place safety symbols.			
	Time: Depends on the area to be covered.			
	Standard/Criteria:			
	 Symbols are placed as per the reporting of the observation; 			
	 Placed safety symbols are big, bold and visible to everybody; 			
	Safety precaution adopted.			
Related technical knowledge	Meaning and importance of safety symbols;			
	Points to be consider while placing safety symbols.			
Safety/precaution	Apply safety gears.			
Tools, equipment and materials	Hammer, pegs, red cloths, rope.			

Task number:	64		
Task statement:	Perform reporting of sites		
Level of task:	Significance Ease Occurence		
	3	3	3
Terminal performance standard	Given Condition: Observation of given site.		
	Task: Perform reporting of sites. Time: 10 minutes /reporting. Standard/Criteria: The work progress, issues, problems and suggested possible solutions are covered in the reporting; The reporting of the performer is matched with the observation made by the supervisor.		
Related technical knowledge	 Meaning and importance of reporting; Points to be considered while reporting; Procedure of reporting of observed sites. 		
Safety/precaution	N/A		
Tools, equipment and materials	Paper, pen.		

Task number:	65				
Task statement:	Excavate trench				
Level of task:	Significance	Ease	Occurence		
	3	2	3		
Terminal performance standard	Given Condition:				
	 Location and site of 	the trench to be prepared;			
	 Given drawing of the 	e trench;			
	 Quantity/length of th 	e trench to be prepared;			
	 Dumping site of the 	soil or gravel.			
	Task: Excavate trench.				
	Time: 2 bucket soil/gravel /minute (can be differ based on working place).				
	Standard/Criteria:				
	 The trench is excavated as per given shape and size and as per the given drawing; 				
	The trench is excavated in the given site the excess material is dumped at				
	the given location.	· ·	·		
Related technical knowledge	 Meaning of trench; 				
	 Common place of m 	aking trench;			
	Points to be consider while making trench;				
	Procedure of making trench;				
	Location for dumping excess materials.				
Safety/precaution	Apply safety gear, apply safety code.				
Tools, equipment and materials	 Excavator, assistant 	, safety code, lime.			

Task number:	66				
Task statement:	Perform pile stocking				
Level of task:	Significance	Ease	Occurence		
	3	3	3		
Terminal performance standard	Given Condition:				
	 Excavated soil/sand/gr 	ravel;			
	 Requirement of filling a 	and reuse of excavated soil/	sand or gravel.		
	Task: Perform pile stocking.		-		
	Time: 5 minutes for loading 8 cubic meter soil, sand or gravel. Standard/Criteria:				
	The pile is straight;				
	The pile is uniform;				
	The pile stock is as pe	r the given site;			
	The loading is 2 cubic	meter /minutes.			
Related technical knowledge	Meaning and importance of stocking or piling;				
	Points to be consider while pile stocking;				
	Procedure of pile stocking.				
Safety/precaution	Apply safety gears.				
Tools, equipment and materials	Excavator.				

Task number:	67			
Task statement:	Perform back filling			
Level of task:	Significance Ease Occurer			
	3	2	2	
Terminal performance standard	Given Condition:			
	 Given site of the cons 	truction and contract.		
	Task: Perform back filling.			
	Time: The gap filling rate is	1 cubic meter /minute (Can I	be varied based on the gap	
	of the constrruction and distance of soil).			
	Standard/Criteria:			
	Construction site is safe;			
	 Back filling is done based on the given time/rate; 			
	 The back filling is mat 	ched with the agreed contra	ct;	
	 Safety precaution is a 	dopted.		
Related technical knowledge	Meaning and importance of back filling;			
	Points to be consider while back filling;			
	Procedure of back filling	ng.		
Safety/precaution	Safety of construction.			
Tools, equipment and materials	Excavator, soil/gravel/	sand.		

Task number:	68			
Task statement:	Load materials			
Level of task:	Significance	Occurence		
	3	2	3	
Terminal performance standard	Given Condition:			
	 Demand/requirement 	of transport of soil, sand or o	gravel;	
	 Volume of soil, sand of 	or gravel to be loaded.		
	Task: Load materials.			
	Time: 5 minutes /8 cubic meter.			
	Standard/Criteria:			
	 8 cubic meter of material is loaded within 5 min in tipper. 			
	Tipper is safe;			
	 Levelling or level of material is made uniform on the tipper; 			
	Signal is given after filling of the tipper.			
Related technical knowledge	 Meaning and importar 	nce of loading;		
	 When to load; 			
	 Points to be consider 	while loading;		
	Procedure of loading.			
Safety/precaution	Apply safety gear, consider safety of tipper and other object.			
Tools, equipment and materials	Excavator, soil, tipper or tractor.			

Task number:	69			
Task statement:	Excavate in C/U turn			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Site or location; 			
	 Engineering drawing; 			
	Instruction for dumping.			
	Task: Excavate in C/U turn.			
	Time: N/A			
	Standard/Criteria:			
	 The cutting is done as per the given engineering drawing (C/U turn); 			
	 Finishing is made uniform and consistent; 			
	 Dumping is done as per the instruction given; 			
	 Excavator is safe. 			

Related technical knowledge	Meaning and importance of cutting in C/U turn;
	Points to be considered while cutting C/U turn;
	Procedure of cutting C/U turn.
Safety/precaution	Take assistant, be careful while cutting in steep.
Tools, equipment and materials	Excavator, assistant, diesel.

Task number:	70				
Task statement:	Perform step cutting				
Level of task:	Significance	Ease	Occurence		
	3	2	3		
Terminal performance standard	Given Condition:				
	 Site or location; 				
	 Engineering drawing; 				
	 Instruction for dumpin 	g.			
	Area to be cut and height.				
	Task: Perform step cutting.				
	Time: N/A				
	 Standard/Criteria: The cutting is done as per the given engineering drawing; Finishing is made uniform and consistent; 				
	 Dumping is done as p 	er the given instruction;			
	 Excavator is safe. 				
Related technical knowledge	 Meaning and importar 				
	 Points to be considered while step cutting; 				
	 Procedure of step cut 	ting.			
Safety/precaution	Apply PPE set, handle tools safely.				
Tools, equipment and materials	Excavator, engineering drawing, diesel, assistant; grease.				

Task number:	71		
Task statement:	Perform square cutting		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition: Site or location; Engineering drawing; Instruction for dumping. Area to be cut and size of square.		
	Task: Perform square cutting. Time: N/A Standard/Criteria: The cutting is done as per the given engineering drawing; Finishing is made uniform and consistent and in square shape; Dumping is done as per the given instruction; Excavator is safe.		
Related technical knowledge	 Meaning and importance of square cutting; Points to be considered while square cutting; Procedure of square cutting. 		
Safety/precaution	Apply safety gear		
Tools, equipment and materials	Excavator, engineering drawing, diesel, assistant and grease.		

Task number:	72		
Task statement:	Perform slope cutting		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition: Site or location; Engineering drawing; Instruction for dumping.		
	 Area to be cut and slope gradient. Task: Perform slope cutting. Time: N/A Standard/Criteria: The cutting is done as per the given engineering drawing; Finishing is made uniform and consistent and in given slope gradient; Dumping is done as per the given instruction; 		
Related technical knowledge	 Excavator is safe. Meaning and importance of slope cutting; Points to be considered while slop cutting; Procedure of slope cutting. 		
Safety/precaution	Apply safety gear.		
Tools, equipment and materials	 Excavator; Engineering drawing; Diesel; Grease. 		

Task number:	73			
Task statement:	Perform pipe laying			
Level of task:	Significance Ease Occuren			
	3	2	3	
Terminal performance standard	Given Condition: Site or location; Engineering drawing; Length to be pipe laid.			
	 Task: Perform pipe laying. Time: 15 minutes for single pipe Standard/Criteria: Alignment is maintained as per the given engineering drawing; Slope is made consistent and uniform; Safety rules are followed. 			
Related technical knowledge	 Importance of coloring of pipe laying; Points to be considered while laying pipe; Procedure of laying pipe. 			
Safety/precaution	Apply safety gear and take help of the other.			
Tools, equipment and materials	 Excavator; Diesel; Grease; Helper; Drawing; Wrench; Plier; Crane belt / tochen; Assistant person. 			

Task number:	74				
Task statement:	Perform lift/shift light object	ct / materials			
Level of task:	Significance Ease Occurence				
	3	3	3		
Terminal performance standard	Given Condition:				
	 Any site or location or 	place to be cleaned or evad	cuated;		
	 Location or site of the 	•			
	 Number or volume of 	object or materials.			
	Task: Perform lift/shift light of	bject / materials			
	Time: 2-5 /object (can be va	ried based on types of objec	ct and distance to be shift).		
	Standard/Criteria:				
	 Objects or materials a 	re lifted safely;			
	 Objects or materials a 	re lifted without spilling;			
	 Objects or materials a 	re shifted in given place;			
	 All the given materials 	or objects are shifted/lifted			
Related technical knowledge	 Meaning and importar 	nce of lifting / shifting of obje	ect;		
	 Points to be considered 	ed while lifting /shifting object	et or materials;		
	 Procedure of lifting / s 	hifting of object and materia	ls.		
Safety/precaution	 Apply safety gear. 				
Tools, equipment and materials	 Excavator; 				
	Materials / objects;				
	 Tochen; 				
	 Tipper or tractor trolle 	y;			
	 Assistant person 				

Task number:	75				
Task statement:	Fit breaker in the excavato	r			
Level of task:	Significance	Ease	Occurence		
	3	1	3		
Terminal performance standard	Given Condition:				
	 Assignment of rock cu 	itting or requirement			
	Task: Fit breaker in the exca	vator.			
	Time: 1 hour /breaker				
	Standard/Criteria:				
	Breaker is fitted straight;				
	Locking pins are locked;				
	Hydraulic pipes are fitted;				
	 Hydraulic lock of brea 				
Related technical knowledge	Meaning and importar	nce of fitting breaker;			
	 Points to be considered 	ed while fitting breaker;			
	Procedure of fitting breaker.				
Safety/precaution	Apply safety gear, handle safely.				
Tools, equipment and materials	 Muslin cloth; 				
	 Wrench; 				
	Gall;				
	Hammer;				
	 Breaker; 				
	 Grease; 				
	 Grease gun; 				
	Water/soap.				

Task number:	76			
Task statement:	Perform rock cutting			
Level of task:	Significance	Ease	Occurence	
	3	1	3	
Terminal performance standard	Given Condition:			
	 Location or site of roc 	k cutting;		
	 Area or volume to be 	cut;		
	 Engineering drawing; 			
	 Dumping site. 			
	Task: Perform rock cutting.			
	Time: N/A			
	Standard/Criteria:			
	Cutting volume is ma	tched with the given assignr	ment;	
	 Cutting is done as per 	the given drawing;		
	All rocks are dumped	-		
		er, and bucket are safe;		
	 Safety is adopted while 			
Related technical knowledge	 Meaning and importar 	•		
	Types of rock to be cu			
	 Points to be consider while cutting rock; 			
	Procedure of rock cutting.			
Safety/precaution	Apply safety gear, caution with rock and gravel during cutting.			
Tools, equipment and materials				
	pipe, assistant, safety	gears, tipper.		

Task number:	77			
Task statement:	Excavate foundation			
Level of task:	Significance	Ease	Occurence	
	3	1	3	
Terminal performance standard	Given Condition: Location or site; Drawing; Dumping site; Area of foundation. Task: Excavate foundation. Time: N/A Standard/Criteria: The foundation is excavated as per the given drawing; Excavated foundation is uniform and consistent; Dumping of the materials is done as per the given instruction;			
Related technical knowledge	 Area completed as per the given assignment. Meaning and importance foundation cutting; Points to be considered while cutting foundation; Procedure of cutting foundation. 			
Safety/precaution	 Apply safety gear, car 	efully observe placing of ma	chine / excavator.	
Tools, equipment and materials				

Task number:	78				
Task statement:	Perform vertical cutting				
Level of task:	Significance Ease Occure				
	3	1	3		
Terminal performance standard	Given Condition:				
	 Location or site; 				
	Drawing;				
	 Dumping site; 				
	 Area or volume of cut 	ting.			
	Task: Perform vertical cuttin	g.			
	Time: N/A				
	Standard/Criteria:				
	The vertical cutting is	done as per the given draw	ing;		
	 Cutting is made unifor 	m and consistent;			
	 Dumping of the mater 	ials is done as per the giver	n instruction;		
	 Vertical cutting in give 	area is completed as per th	ne given assignment.		
Related technical knowledge	 Meaning and importar 	nce vertical cutting;			
	 Points to be considered 	ed while cutting vertically;			
	Procedure of vertical cutting.				
Safety/precaution	Apply safety gear;				
	 Cut with caution. 				
Tools, equipment and materials	Excavator, drawing, breaker, bucket, assistant, gall, wrench, muslin cloth,				
	tipper / tractor.				

Task number:	79			
Task statement:	Perform tunnel cutting			
Level of task:	Significance	Ease	Occurence	
	3	1	2	
Terminal performance standard	Given Condition: Location or site; Drawing; Dumping site; Area or volume of cutting. Task: Perform tunnel cutting. Time: N/A Standard/Criteria: The tunnel cutting is performed as per the given drawing; Tunnel cutting is made uniform and consistent;			
	 Materials are dumped as per the given instruction; Tunnel cutting in given area is completed as per the given assignment. 			
Related technical knowledge	Meaning and importance vertical tunnel cutting; Points to be considered while cutting tunnel; Procedure of tunnel cutting.			
Safety/precaution	Apply safety gear. Take caution while cutting.			
Tools, equipment and materials	 Excavator; Drawing; Breaker; Bucket; Assistant person; Gall; Wrench; Muslin cloth; Tipper/ tractor 			

Task number:	80				
Task statement:	Load excavator in transporter				
Level of task:	Significance Ease Occurence				
	3	1	3		
Terminal performance standard	Given Condition:				
	 Given task is complete 	ed and new assignment is si	igned;		
	 Site or location. 				
	Task: Load excavator in tran	isporter.			
	Time: 30 minutes /loading				
	Standard/Criteria:				
	 Excavator is place at the center of the transporter; 				
	Alignment is made straight;				
	 Tochen and chain pulley is tightened; 				
	 Polythene pipe is placed and tied in the upper side; 				
	 Bucket and stick are p 	olaced.			
Related technical knowledge	Reasons and importance of loading excavator in transporter;				
	Loading excavator in transporter;				
	Procedure of loading excavator in transporter.				
Safety/precaution	Apply safety gear, adjust balance of the excavator.				
Tools, equipment and materials	Transporter, excavator, tochen, chain pulley, assistant, gall, hammer.				

Task number:	81				
Task statement:	Bind excavator by tochen				
Level of task:	Significance	Ease	Occurence		
	3	2	3		
Terminal performance standard	Given Condition:				
	 Products has to be del 	ivered as per the demand	or order;		
	 Instantly sold or count 	er sold products;			
	 Quantity of products to be packaged or wrapped. 				
	Task: Bind excavator by toch	ien			
	Time: 30 minutes /binding				
	Standard/Criteria:				
	Excavator is bind tight and safe.				
Related technical knowledge	 Meaning and important 	ce of tochen and transpor	tation of excavator;		
	Points to be considered while binding excavator in transporter;				
	Procedure of binding excavator in transporter.				
Safety/precaution	Apply PPE set, handle tochen safely.				
Tools, equipment and materials	Safety gear, tochen, wrench, and assistant.				

Task number:	82			
Task statement:	Unbind the excavator in the transporter			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Transporter with loads 	ed excavator;		
	Task: Unbind the excavator in transporter			
	Time: 10 minutes /unbinding			
	Standard/Criteria:			
	 Excavator is unbounded safely within the given time; 			
	Tochen and chain pulley are safely removed;			
	Excavator is free from damage and scratch.			
Related technical knowledge	Points to be considered while unbinding the excavator in the transporter;			
	Methods of unbinding the excavator in the transporter.			
Safety/precaution	Apply safety gear and handle tochen carefully			
Tools, equipment and materials	 Gloves, wrench, safet 	y gear		

Task number:	83				
Task statement:	Unload excavator from transporter				
Level of task:	Significance Ease Occurence				
	3	1	3		
Terminal performance standard	Given Condition:				
	 Unbind excavator load 	led transporter.			
	Task: Unload excavator from	r transporter.			
	Time: 15 minutes unloade.				
	Standard/Criteria:				
	 Excavator is unloaded safely; 				
	Excavator is unloaded in the given safe place;				
	 Excavator is aligned h 	orizontally on the ground.			
Related technical knowledge	 Meaning and importar 	nce of unloading excavator;			
	Point to be considered while unloading excavator.				
Safety/precaution	Apply safety gear, observe left-right up down to be free movement.				
Tools, equipment and materials	Excavator;				
	 Assistant person. 				

Task number:	84			
Task statement:	Level the parking area			
Level of task:	Significance	Ease	Occurence	
	3	2	3	
Terminal performance standard	Given Condition:			
	 Parking site or location 	n;		
	 Unloaded excavator. 			
	Task: Level the parking area.			
	Time: N/A (Depends on the	size of the business).		
	Standard/Criteria:			
	Parking area is levelled;			
	The surface of the ground is horizontal.			
Related technical knowledge	Meaning and importance of levelling of parking area;			
	Procedure of levelling parking area.			
Safety/precaution	Apply safety gear, handle leveler carefully.			
Tools, equipment and materials	Excavator and leveler;			
	 Safety gear. 			

Task number:	85			
Task statement:	Place attachment on ground			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Given excavator; 			
	 Site or location for pla 	cing.		
	Task: Place attachment on ground.			
	Time: N/A			
	Standard/Criteria:			
	 Excavator is attached on the ground level; 			
	Attachment is placed in the given ground.			
Related technical knowledge	Meaning and importance of ground attachment;			
	Points to be considered while attaching machine.			
Safety/precaution	Apply PPE set, handle plants safely			
Tools, equipment and materials	PPE set;			
	 Wheelbarrow, 			

Task number:	86			
Task statement:	Refill fuel			
Level of task:	Significance	Ease	Occurence	
	3	3	3	
Terminal performance standard	Given Condition: • Excavator with vacant fuel tank.			
	Task: Refill fuel.			
	Time: 20 minutes /refilling			
	Standard/Criteria:			
	Fuelling is done without spill on the ground;			
	Fuel tank is filled fully with fuel;			
	Cap/lid is tightened after refueling;			
	Remaining fuel is safely stored.			
Related technical knowledge	Importance of refueling;			
	Points to be considered while refueling;			
	Procedure of refueling.			
Safety/precaution	Wear safety gear, free from spell, lid or cap should be tightened			
Tools, equipment and materials	Fuel, opener, wrench, delivery pipe, cloth, rod, fine net or netting cloth or netting funnel.			

Task number:	87		
Task statement:	Switch off the excavator engine		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition: • Excavator engine is in "switched on" position		
	Task: Switch off the excavator engine. Time: 5 minutes /excavator engine .		
	Standard/Criteria:		
	 Excavator is kept in slow motion for 5 minutes; 		
	 Engine key is turned to off position to stop the engine; 		
	The engine is switched off safely.		
Related technical knowledge	 Importance of cooling machine while stopping engine; 		
	 Procedure of stopping e 	engine.	
Safety/precaution	Apply safety gear, don't stop engine accidently.		
Tools, equipment and materials	Excavator with engine key.		

Task number:	88			
Task statement:	Lock door /windows /ventilation			
Level of task:	Significance Ease Occurence			
	3	3	3	
Terminal performance standard	Given Condition:			
	 Excavator with immed 	iately switched off. engine		
	Task: Lock door /windows /ventilation.			
	Time: 5 minutes /event			
	Standard/Criteria:			
	Windows are closed and locked;			
	Ventilation are closed and locked;			
	Door are closed and locked.			
Related technical knowledge	Importance of locking door, window and ventilation;			
	 Procedure of locking v 	vindow, ventilation and door	۲.	
Safety/precaution	Apply safety gear, handle ventilation, window and door safely.			
Tools, equipment and materials	Door key/engine key.			

Task number:	89			
Task statement:	Keep operation records (log book)			
Level of task:	Significance Ease Occurence			
	3	3	3	
Terminal performance standard	Given Condition:			
	 Forms and formats or 			
	Task: Keep operation records (log book).			
	Time: 2 minutes /operation			
	Standard/Criteria:			
	 Records kept as per the given forms and formats; 			
	 Records are updated / recent or daily; 			
	 Records are clear and understandable to the users. 			
Related technical knowledge	Meaning and importance of operation record;			
	Points to be considered while keeping operation records;			
	Procedure of keeping	operation records.		
Safety/precaution	• N/A.			
Tools, equipment and materials	Logbook / form / format, pen.			

Task number:	90			
Task statement:	Keep maintenance records			
Level of task:	Significance Ease Occurence			
	3	3	3	
Terminal performance standard	Given Condition:			
	 Maintenance activities 	, forms formats, or maintena	ance log book.	
	Task: Keep maintenance records.			
	Time: 5 minutes / reocrd.			
	Standard/Criteria:			
	 Records are maintained in the given forms, format; 			
	The records are recorded as per the given maintenance activities.			
Related technical knowledge	 Meaning and importance of maintenance record; 			
	 Types of forms and formats to keep maintenance record; 			
	 Points to be considered while keeping maintenance record; 			
	 Procedure of keeping 	maintenance record.		
Safety/precaution	• N/A.			
Tools, equipment and materials	Form or format or maintenance log book, pen.			

Task number:	91			
Task statement:	Keep troubleshooting records			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Forms or format or log 	gbooks.		
	Task: Keep troubleshooting	records.		
	Time: 2 minutes./record.			
	Standard/Criteria:			
	All the problems are recorded;			
	Records are kept in the given forms and formats;			
	Records are updated regularly;			
	Records are clear and understandable to the users.			
Related technical knowledge	Meaning and importance troubleshoot record;			
_	Common types of troubleshoot found in an excavator;			
	 Points to be considered while keeping troubleshoot record; 			
	Procedure of keeping troubleshoot records.			
Safety/precaution	• N/A.			
Tools, equipment and materials	 Papers or logbook troubleshoot. 	or forms and formats, po	en, list of problems after	

Task number:	92			
Task statement:	Keep Safety and security records			
Level of task:	Significance Ease Occurence			
	3	2	3	
Terminal performance standard	Given Condition:			
	 Forms and formats or 	logbooks.		
	Task: Keep Safety and security records Time: N/A			
	Standard/Criteria:			
	Records are kept in the given forms and formats;			
	Records are updated regularly;			
	Records are clear and understandable to the users.			
Related technical knowledge	Meaning and importance production record, sells record and stock record;			
	Points to be considered while keeping different records;			
	Procedure of keeping records.			
Safety/precaution	• N/A.			
Tools, equipment and materials	Papers or logbook or for production, sells, and sells.	orms and formats, pen, list or stock.	preliminary information of	



