



Model Curriculum

QP Name: Forklift Operator/Driver

QP Code: ASC/Q9707

QP Version: 2.0

NSQF Level: 4

Model Curriculum Version: 1.0

Automotive Skill Development Council || 153, GF, Okhla Industrial Area,
Phase 3, New Delhi 110020

Table of Contents

Training Parameters.....	3
Program Overview	4
Training Outcomes.....	4
Compulsory Modules.....	4
Module 1: Introduction to Automotive Industry and Forklift Operator/Driver	7
Module 2: Maintain Health, Hygiene and Safety Standard at the Workplace	8
Module 3: Perform Waste Disposal and Material Conservation Activities	9
Module 4: Maintain Effective Communication at Workplace	10
Module 5: Conduct Pre-drive Inspection and Checks on Forklift	11
Module 6: Perform Basic Operational Checks before the Start of Work.....	12
Module 7: Examine Roadworthiness of the Vehicle and Drive the LMV as per Standard	13
Module 8: Adhere to the Traffic Rules and Basic Troubleshooting Practices.....	14
Module 9: Start the Forklift	15
Module 10: Lift the Material	16
Module 11: Move the Material on Forklift	17
Module 12: Park the Forklift	18
Annexure.....	19
Trainer Requirements	19
Assessor Requirements.....	20
Assessment Strategy.....	21
References	23
Glossary.....	23
Acronyms and Abbreviations.....	25

Training Parameters

Sector	Automotive
Sub-Sector	Road Transportation
Occupation	Driving
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8332.0200
Minimum Educational Qualification and Experience	8th Class with 2 year of relevant experience of LMV driving OR Certificate NSQF (Light Motor Vehicle Driver Level 3) with 1 year of relevant experience
Pre-Requisite License or Training	Valid LMV Permanent license
Minimum Job Entry Age	18 years
Last Reviewed On	30/09/2021
Next Review Date	30/09/2024
NSQC Approval Date	30/09/2021
QP Version	2.0
Model Curriculum Creation Date	30/09/2021
Model Curriculum Valid Up to Date	30/09/2024
Model Curriculum Version	1.0
Minimum Duration of the Course	304 Hours, 0 Minutes
Maximum Duration of the Course	304 Hours, 0 Minutes

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner will be able to:

- Apply health, hygiene, and safety practices at the workplace.
- Perform the tasks to utilize the resources in a responsible manner.
- Employ appropriate practices to communicate effectively with customer, colleagues, and superiors to achieve a smooth workflow.
- Employ appropriate techniques to ensure fitness of forklift for shop floor operations
- Perform the steps to drive the light motor vehicle while conforming to the standard rules and regulations.
- Apply appropriate practices to lift and move the material using forklift
- Employ appropriate procedure to park and maintain forklift after completing operation

Compulsory Modules

The table lists the modules, their duration and mode of delivery.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	04:00	00:00	00:00	00:00	04:00
Module 1: Introduction to Automotive Industry and Forklift Operator/Driver	04:00	00:00	00:00	00:00	04:00
ASC/N9809 – Organize Work and Resources (Road Transportation) NOS Version No. 1.0 NSQF Level 3	16:00	24:00	00:00	00:00	40:00
Module 2: Maintain Health, Hygiene and Safety Standard at the Workplace	12:00	16:00	00:00	00:00	28:00
Module 3: Perform Waste Disposal and Material Conservation Activities	04:00	08:00	00:00	00:00	12:00
ASC/N9808 – Interact Effectively with Colleagues and Customers (Road Transportation)	16:00	24:00	00:00	00:00	40:00

NOS Version No. 1.0 NSQF Level 3					
Module 4: Maintain Effective Communication at the Workplace	16:00	24:00	00:00	00:00	40:00
ASC/ N9704 – Drive Responsibly and Ensure Road Worthiness of Vehicle NOS Version No. 1.0 NSQF Level 3	24:00	40:00	00:00	00:00	64:00
Module 5: Examine Roadworthiness of the Vehicle and Drive the Forklift as per Standard	16:00	24:00	00:00	00:00	40:00
Module 6: Adhere to the Traffic Rules and Basic Troubleshooting Practices	08:00	16:00	00:00	00:00	24:00
ASC/N9712: Ensure fitness of forklift for shopfloor operations NOS Version No. 1.0 NSQF Level 4	24:00	32:00	00:00	00:00	56:00
Module 7: Conduct Pre-drive Inspection and Checks on Forklift	16:00	24:00	00:00	00:00	40:00
Module 8: Perform Basic Operational Checks before the Start of Work	08:00	08:00	00:00	00:00	16:00
ASC/N09713: Handle deliveries, stocking and shifting of goods NOS Version No. 2.0 NSQF Level 4	24:00	36:00	00:00	00:00	60:00
Module 9: Start the Forklift	08:00	08:00	00:00	00:00	16:00
Module 10 : Lift and Move the Material on Forklift	08:00	20:00	00:00	00:00	28:00
Module 11 : Park the Forklift	08:00	08:00	00:00	00:00	16:00

ASC/N9606 – Ensure Roadworthiness of Electric Vehicles (EV) NOS Version No. 2.0 NSQF Level 3	16:00	24:00	00:00	00:00	40:00
Module 12: Ensure Roadworthiness of the Electric Vehicle and Conform to CMVR and State Guideline	16:00	24:00	00:00	00:00	40:00
Total Duration	124:00	180:00	00:00	00:00	304:00

Module Details

Module 1: Introduction to Automotive Industry and Forklift Operator/Driver

Bridge Module

Terminal Outcomes:

- Outline the overview of Skill India Mission
- Describe the scope of Automotive Industry
- Define the role and responsibilities of Forklift Operator/Driver

Duration: 04:00	Duration: 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the objectives and benefits of the Skill India Mission • Describe the scope of Indian Automotive Industry and its sub-sectors • Explain basic terminologies and road safety signs used in Road Transport and Driving industry • Discuss job role and opportunities for a Forklift Operator/Driver in the Automotive Industry • Explain standard code of ethics and professional practices to be adhered by a Forklift Operator/Driver 	NA
Classroom Aids	
Whiteboard, Flip Chart, Markers, Duster, Projector, Laptop with charger, Projector screen, Power Point Presentation, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
NA	

Module 2: Maintain Health, Hygiene and Safety Standard at the Workplace

Mapped to ASC/N9809, v 1.0

Terminal Outcomes:

- Employ appropriate health, hygiene, and safety practices at workplace

Duration: 12:00	Duration: 16:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the ways to organize work as per standard health, safety and security policy and procedures. • Outline the concept and importance of personal and workplace hygiene. • Explain the ways to clean and sanitize the vehicle and related equipment. • List vital points to be checked to ensure proper functioning of the vehicle before commencing work. • List the causes of risks and potential hazards in the workplace and ways to prevent them. • List the components of the first-aid kit. • State the importance of self-isolation in the context of epidemic or pandemic situation. • Outline the purpose and usage of various Personal Protective Equipment (PPE) required at the workplace. • Recall the helpline number related to the women safety. • Explain the procedure to report accident, hazard and any health-related issues as per SOP. 	<ul style="list-style-type: none"> • Employ appropriate ways to keep vehicle clean, hygienic and hazard free. • Apply appropriate practices to check and ensure proper functioning of vehicle before commencing work. • Employ appropriate practices to check and ensure all equipment of the vehicle is properly connected before commencing the work • Prepare a sample report for vehicle repair and maintenance requirements as well as safety breaches. • Role play on how to report hygiene and sanitation issues to appropriate authority • Demonstrate how to provide first-aid in case of an accident. • Apply appropriate corrective measures in case of accident • Demonstrate the correct ways of washing hands using soap and water as well as sanitize them with alcohol-based sanitizers. • Show how to use and dispose of relevant protective equipment as per tasks and work conditions.
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector screen, Power Point Presentation Laptop with charger, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Personal Protection Equipment: Safety glasses, Sanitization kit, Hand gloves, Face masks, Safety shield, Fire extinguisher, First aid kit, etc.	

Module 3: Perform Waste Disposal and Material Conservation Activities

Mapped to ASC/N9809, v 1.0

Terminal Outcomes:

- Employ effective waste management practices
- Discuss various conservation practices at the workplace

Duration: 04:00	Duration: 08:00
<p>Theory – Key Learning Outcomes</p> <ul style="list-style-type: none"> • State the significance of greening. • List the common sources of pollution and ways to minimize it. • Discuss various types of waste (like dry, wet, recyclable, non-recyclable and items of single-use plastics) and usage of different colours of dustbins according to the waste type. • Elaborate the importance of using the material and water effectively and efficiently at the workplace. • List the ways to optimize usage of fuel (Petrol/diesel/CNG) in the vehicle. • Explain different methods to check spills/leakages of fuel (Petrol/diesel/CNG), oil/coolant or water from the vehicle. 	<p>Practical – Key Learning Outcomes</p> <ul style="list-style-type: none"> • Demonstrate waste disposal procedures at the workplace depending on the types of waste. • Apply appropriate techniques to check and plug spills/leakages in the vehicle. • Dramatize a situation on how to escalate vehicle poor fuel economy, decrease in oil level, coolant or any water/oil leakage issues to appropriate authority. • Show how to use resources in a responsible manner.
<p>Classroom Aids</p> <p>Training kit (Trainer guide, Presentations), White board, Marker, Projector screen, Power Point Presentation Laptop with charger, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.</p>	
<p>Tools, Equipment and Other Requirements</p> <p>Different type of waste bins to collect and segregate waste for disposal</p>	

Module 4: Maintain Effective Communication at Workplace

Mapped to ASC/N9808, v 1.0

Terminal Outcomes:

- Explain professional protocols and etiquette of effective communication to be followed with customers, colleagues, and superiors.
- Discuss various ways to show sensitization towards different age groups, gender and persons with disabilities.

Duration: 16:00	Duration: 24 :00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of professionalism, etiquette, ethical behaviour and gender sensitive service practices at the workplace. • State the importance of effective communication and procedure for establishing good working relationships with supervisor and customers. • State the importance of identifying work requirements on the basis of instructions received from the supervisor. • Discuss the standard policy with regards to Persons with disability. • Discuss the importance of adhering to the policies related to physical and verbal Sexual harassment at workplace. • Explain the importance of showing respect to personal space of others. • Discuss different ways of escalating unresolved problems and analysing feedback from superiors as well as from customers. 	<ul style="list-style-type: none"> • Demonstrate the standard procedure to welcome and greet the customers. • Role play a situation on how to address customers dis-satisfactions and complaints effectively. • Role play a situation on how to communicate with customers, colleagues and others of different ages, genders and differently abled people as well as per specification. • Role play on how to escalate unresolved problems to superiors. • Dramatize a situation on how to report the completed trips and other data to the supervisor
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector screen, Power Point Presentation Laptop with charger, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Sample of escalation matrix and Organisation structure.	

Module 5: Examine Roadworthiness of the Vehicle and Drive the LMV as per Standard

Mapped to ASC/N9704, v 2.0

Terminal Outcomes:

- Perform the steps to examine the roadworthiness of the vehicles.
- Demonstrate the pre-driving and driving activities conforming to the LMV standard driving practices.

Duration: 16:00	Duration: 24:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the legal, technical, safety and compliance requirements, like pollution test, load limit, etc. as well as roadworthiness parameters for Light Motor Vehicles. • Discuss the quality norms and standards prescribed in the Quality Manual by the organization. • Describe basic functionalities of the technical equipment of the vehicle. • State the importance of examining the standard check list for the vehicle before the trip. • Describe safe and fuel-efficient driving techniques. • Explain the standard escalation procedure regarding vehicle defects or deviation. 	<ul style="list-style-type: none"> • Apply appropriate techniques to perform routine checks on the vehicle for tyre pressure, fuel. (Petrol/diesel/CNG) level, working of headlights and brakes, CNG cylinder valves, gauges, warning lights, etc. • Employ appropriate practices to check vehicle service record for any history of technical defects or immediate need for servicing like oil/filter change, etc. • Prepare sample deviation report as per observation while carrying out checks • Draft a sample to-do list for repair requirement. • Demonstrate how to check the roadworthiness of the vehicle. • Create a sample report regarding actual or potential defects and deviations in the vehicle. • Display pre-driving activities like shoulder checking, adjusting IRVM/ORVM and releasing of handbrakes, etc. • Demonstrate the procedure of safe driving starting from inserting or pressing the ignition key/button.
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector Screen, Laptop with charger, Power Point Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Light Motor Vehicle, Sample compliance requirements, like pollution test, load limit, etc.	

Module 6: Adhere to the Traffic Rules and Basic Troubleshooting Practices

Mapped to ASC/N9704, v 2.0

Terminal Outcomes:

- Describe the local and state specific traffic rules and regulations.
- Demonstrate basic troubleshooting in case of any malfunction in the vehicle.
- Explain the procedure of reporting the malfunction of the vehicle to the Supervisor.

Duration: 08:00	Duration: 16:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the related rules and sections of Motor Vehicle Act, 1988 as well as CMVR guidelines as stipulated by Moth and State Road Transport Authorities like RTOs. • List the local and state specific driving laws and traffic regulations, including overloading. • Discuss the road and traffic guidelines while driving, like avoiding excessive honking, speed, driving on high beam, loud music, and maintaining safe distance from other vehicles, keeping the vehicle within the prescribed speed limit at all times, etc. • Discuss basic troubleshooting techniques for Light Motor Vehicle. • Explain the standard procedure to take the vehicle to the service/repair point for corrective action, like parts replacements. 	<ul style="list-style-type: none"> • Apply appropriate practices to adhere to traffic rules while driving the vehicle. • Demonstrate how to stop and park the vehicle at appropriate spots. • Demonstrate how to monitor and respond appropriately to gauges, warning lights, CNG leakage etc. while driving. • Show how to carry out a diagnostic check and conduct basic troubleshooting in case of any malfunction in the vehicle. • Role play on how to report the exact nature of the problem to the Supervisor to get appropriate help from the command office.
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop with charger, Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Light Motor Vehicle, Related spare parts, Sample traffic signals and Road signs.	

Module 7: Conduct Pre-drive Inspection and Checks on Forklift

Mapped to ASC/N9712, v 2.0

Terminal Outcomes:

- Perform the steps to inspection of forklift.
- Perform activates for the pre-driving inspection and checking on Forklift.

Duration: 16:00	Duration: 24:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain organizational and manufacturer’s quality norms and standards for the forklift maintenance • List all health and safety guidelines while operating the forklift • Describe components of a forklift and their standard condition • State the significance of checking all the components of the forklift for proper functioning • Discuss the inspection checklist for forklift • Describe standard procedure to inspect the forklift • Elucidate the types of checks to be performed before and after starting the forklift 	<ul style="list-style-type: none"> • Demonstrate how to check the forklift for engine’s optimum oil level, fuel level, radiator coolant level • Show how to inspect the battery area visually for spillage and corrosion on terminals/battery tray and verify plug connections are not loose, terminals are greased, and voltage and vent caps are not clogged • Apply appropriate techniques to check all the cables for tension, broken/exposed wires • Employ appropriate practices to monitor the electrolyte levels in each cell and secure brackets to keep battery in place • Apply appropriate procedure to check wheels and tyres for any wear, bulging, or cut, and air pressure and ensure the forklift guards, chains, or hydraulic hose reels are not damaged, and bolts/nuts are intact • Employ proper practices to ensure forks are not bent, no cracks are present, positioning latches are in good working condition, and carriage teeth are not broken, chipped, or worn • Employ appropriate inspection techniques to check horn, warning devices, headlights, brake lights and warning lights for proper functioning and verify the overhead cage is in good condition and does not have any cracks, bend, etc.
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector Screen, Laptop with charger, Power Point Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Forklift	

Module 8: Perform Basic Operational Checks before the Start of Work

Mapped to ASC/N9712, v 2.0

Terminal Outcomes:

- Describe types of operational check before the starting the work.
- Perform basic operational check in the forklift.
- Explain the basic functions of the technical equipment of the vehicle.

Duration: 08:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain types of operational check to be performed before starting the work • Describe basic functionalities of the technical equipment of the vehicle • Discuss standards for forklift operation • State the significance of ensuring the forklift preventive maintenance schedules are followed as per standard guideline 	<ul style="list-style-type: none"> • Perform the activities to ensure that pedal of the foot brake works smoothly, the parking brake holds against slight acceleration and the seat latch holds when operator rises from seat • Employ appropriate practices to check the clutch and gearshift shift work smoothly • Demonstrate how to check dash control panel for warning lights, gauges, emergency switch, steering and lift and tilt mechanism for proper functioning • Show how to examine cylinders and hoses for any leakage • Perform the activities to ensure the mast tilts forward and backward correctly and also extends
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop with charger, Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Forklift, Related spare parts	

Module 9: Start the Forklift

Mapped to ASC/N09713, v 2.0

Terminal Outcomes:

- Describe OSHA and other safety standards
- Perform steps to monitor all checking point before starting the forklift

Duration: 08:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe OSHA and other safety standards • Explain usage and functioning of PPE • Explain standard procedure to start and drive the forklift • Discuss procedure and significance of checking the forklift for proper functioning after starting • List all check points to inspect before moving or driving the forklift • Discuss the procedure to check all attachment controls for correct operation 	<ul style="list-style-type: none"> • Demonstrate how to use seatbelt and wear proper PPE kit as per OSHA (Occupation Safety and Health Act) • Show how to check parking brake, transmission for neutral gear position, safety locks and all attachment controls • Apply appropriate procedure to make sure that the throttle control or accelerator pedal is pushed past any constriction that may be fitted and is in the low idle position • Demonstrate how to start the engine, cool down the starter or pre-heat the vehicle if engine fails to start within approximately 10 seconds • Employ appropriate techniques to check all gauges for correct operation • Apply appropriate procedure to allow the engine and components to warm up to operating temperature • Show how to check all attachment controls for their correct operation, unusual noises and any vibrations after starting the forklift • Employ appropriate practices to ensure that the area is clear and it is safe to move the forklift
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop with charger, Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Forklift	

Module 10: Lift and Move the Material on Forklift

Mapped to ASC/N09713, v 2.0

Terminal Outcomes:

- Describe standard procedure to lift material using the forklift
- Perform steps to lift the material by forklift

Duration: 08:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain standard procedure to lift material using the forklift • List recommended load limit of the forklift • Describe standard procedure to move the material on a forklift 	<ul style="list-style-type: none"> • Demonstrate how to drive the forklift to the desired location and lower the forks when load kept on ground or take it to the level of load • Show how to align the fork before inserting it into the pallet and insert the fork all the way under the material • Employ appropriate procedures to adjust the fork as wide as possible to fit the load to even distribution of weight and ensure the load is within specified limits of forklift • Apply appropriate techniques to make sure that the material on pallets is stable, balanced, cross-tied and evenly distributed • Demonstrate how to tilt loads backward or as specified for load and travel with forks as low as possible from the floor • Apply appropriate practices to match speed limit of driving with load and workplace conditions and drive to the designated location avoiding any obstacles in the unladen condition • Demonstrate how to keep the pallet on ground/ bin base and slowly start removing forks out of the pallet • Employ proper practices to ensure that the material is not damaged while unloading
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop with charger, Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Forklift and Material	

Module 11: Park the Forklift

Mapped to ASC/N09713, v 2.0

Terminal Outcomes:

- Discuss appropriate procedures to park the forklift in the parking area

Duration: 08:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe standard procedures to park the forklift in the parking area for short as well as long durations • State the significance of operating the forklift once a week if parked for long durations 	<ul style="list-style-type: none"> • Show how to park the forklift in the parking area with the forks and attachments at their proper place • Demonstrate how to place all attachment control levers in the neutral or hold position and tighten all lift chains to secure the top carrier rollers • Perform the activities to place the transmission and forward-reverse levers into the neutral position and apply safety locks and brakes • Apply appropriate techniques to turn off the fuel isolating valve (in case of an LPG powered forklift) and switch off the ignition • Show how to decrease the inner pressure by operating the lift & tilting lever several times • Apply appropriate practice to take out the key & hand it over to concerned person • Apply appropriate techniques to check and take out the plug to prevent discharge of batteries (both electric or other fuel) • Demonstrate how to apply oil/grease to avoid rust on exposed parts • Employ proper practices to operate forklift once in a week with forks lifted till its maximum height if parked for long durations
Classroom Aids	
Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop with charger, Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.	
Tools, Equipment and Other Requirements	
Forklift	

Module 12: Ensure Roadworthiness of the Electric Vehicle and Conform to CMVR and State Guidelines

Mapped to ASC/N9606, v 1.0

Terminal Outcomes:

- Perform the steps to examine the roadworthiness of the Electrical Vehicle.
- Describe CMVR and State Guidelines related to Electrical Vehicle.

Duration: 32:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the CMVR guidelines issued by MoRTH, RTOs and other relevant authorities for the Electric Vehicle. • Explain the quality norms and standards prescribed for the EV in the Instructional Manual or Standard Operating system (SOP). • State the importance of ensuring the availability of required tools for the basic maintenance of the EV as mentioned in as per the Work Instructions/SOPs • Discuss the basic functionalities and driving techniques of the Electric Vehicle (EV). • List the required tools required for the basic maintenance of the EV • Compare between the basics of driving an Electric Vehicle as against an Internal Combustion (IC) Engine vehicle. • Describe various types of batteries used in the EV and their maintenance procedures. • Discuss different functions of a battery • State the types of charging connector and time required for a full charge using either fast or slow chargers. • Discuss related electronic systems including active and passive safety systems specific to EV. • State the importance of applying the OEM's Standard Operating Procedures (SOP) while identifying the basic electrical faults in the EV. • Discuss various tools and their usage to diagnose technical faults in the EV. • Identify the standard symbols and signages used in the EV 	<ul style="list-style-type: none"> • Apply appropriate practices to identify related dashboard's signs, signals, sensors, switches, gauges, Human Machine Interface (HMI) and Electronic Instrument Cluster (EIC) related to the EV. • Show how to charge an Electric Vehicle and ensure optimum charging. • Demonstrate how to use the lights, ignition, electronic and air-conditioning systems etc. • . • Demonstrate how to identify the basic electrical/electronic faults in the EV. • Prepare sample statutory documentation relevant to safety.

Classroom Aids
Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop with charger, Presentation, Participant Handbook and Related Standard Operating Procedures, 2.1 Laptop External Speakers.
Tools, Equipment and Other Requirements
Electrical Vehicle and Related spare parts.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Mechanic Motor Vehicle	2	Driving	1	Driving	Should have 5 years old driving license of the same category
ITI	Mechanic Motor Vehicle	3	Driving	0	Driving	
Certificate-NSQF	Driver Trainer L5	2	Driving	1	Driving	

Trainer Certification	
Domain Certification	Platform Certification
“Forklift Operator/Driver”, “ASC/Q9707, Version 2.0”, Minimum accepted score is 80%	“Trainer”, “MEP/Q2601, V1.0” with a scoring of minimum 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Mechanic Motor Vehicle	3	Driving	1	Driving	Should have 5 years old driving license of the same category NA
ITI	Mechanic Motor Vehicle	4	Driving	0	Driving	
Certificate- NSQF	Driver Trainer L5	3	Driving	1	Driving	

Assessor Certification	
Domain Certification	Platform Certification
“Forklift Operator/Driver”, “ASC/Q9707, Version 2.0”, Minimum accepted score is 80%	“Assessor”, “MEP/Q2701, V1.0” with the scoring of minimum 80%

Assessment Strategy

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

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDSM/SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records
- If the batch size is more than 30, then there should be 2 Assessors.

2. Testing Environment: Assessor must:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME should be verified by the other subject Matter Experts along with the approval required from THSC
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 is for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- Assessor must be ToA certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:

- Surprise visit to the assessment location
- Random audit of the batch
- Random audit of any candidate

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage and are stored in the Hard Drives

References

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements that together specify the technical, generic, professional and organizational specific knowledge that an individual need in order to perform to the required standard.
Organizational Context	Organizational context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today’s world. These skills are typically needed in any work environment in today’s world. These skills are typically needed in any work environment. In the context of the OS, these include communication-related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contribute to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
OS	Occupational Standard
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
SOP	Standard Operating Procedure
PPE	Personal Protective Equipment