



Model Curriculum

QP Name: Bicycle Mechanic

QP Code: ASC/Q1434

QP Version: 1.0

NSQF Level: 3

Model Curriculum Version: 1.0

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Training Parameters

Sector	Automotive
Sub-Sector	Automotive Vehicle Service
Occupation	Technical Service & Repair
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3115.0602
Minimum Educational Qualification and Experience	8th Class pass with 1 year of relevant experience OR 8th Class with ITI OR 10th Class pass
Pre-Requisite License or Training	NA
Minimum Job Entry Age	14 Years
Last Reviewed On	30/06/2022
Next Review Date	30/06/2025
NSQC Approval Date	30/06/2022
QP Version	1.0
Model Curriculum Creation Date	30/06/2022
Model Curriculum Valid Up to Date	30/06/2025
Model Curriculum Version	1.0
Minimum Duration of the Course	270 Hours 00 Minutes
Maximum Duration of the Course	270 Hours 00 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 should have acquired the listed knowledge and skills.

- Perform routine service/maintenance/minor repairs of a bicycle.
- Perform routine service/maintenance/minor repairs of an electric bicycle.
- Assist the lead technician in diagnosing and repairing faults in an electric bicycle.
- Work effectively and efficiently as per schedules and timelines.
- Implement safety practices.
- Optimize the use of resources to ensure less wastage and maximum conservation.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	05:00	00:00	-	-	05:00
Module 1: Introduction to the role of a Professional Bicycle Mechanic	05:00	00:00	-	-	05:00
ASC/N9801 - Organize Work and Resources (Service) NOS Version No. 1.0 NSQF Level 4	15:00	30:00	-	-	45:00
Module 2: Work effectively and efficiently	09:00	15:00	-	-	24:00
Module 3: Optimize resource utilization	06:00	15:00	-	-	21:00
ASC/N9802 – Interact effectively with colleagues, customers and others NOS Version No. – 1.0 NSQF Level – 3	15:00	25:00	-	-	40:00
Module 4: Communicate effectively and efficiently	15:00	25:00	-	-	40:00
ASC/N1429: Perform routine service, repair and maintenance of bicycle NOS Version No. – 2.0 NSQF Level – 4	30:00	45:00	-	-	75:00
Module 5: Perform maintenance, service and repairing of a bicycle	30:00	45:00	-	-	75:00
ASC/N14XX – Carry out routine service or minor repairs on electric bicycle and assist in diagnosis	30:00	45:00	-	-	75:00

NOS Version No. – 1.0 NSQF Level – 4				
Module 6: Perform routine service and repairs of an electric bicycle	30:00	45:00		75:00
Employability Skills (30 hours) NOS Version No. – 1.0 NSQF Level – 2	20:00	10:00		30:00
Module 7: Introduction to Employability Skills	1:00	0:00		1:00
Module 8: Constitutional values - Citizenship	0.5:00	0.5:00		1:00
Module 9: Becoming a Professional in the 21st Century	0.5:00	0.5:00		1:00
Module 10: Basic English Skills	0:00	2:00		2:00
Module 11: Communication Skills	0:00	4:00		4:00
Module 12: Diversity & Inclusion	0.5:00	0.5:00		1:00
Module 13: Financial and Legal Literacy	4:00	0:00		4:00
Module 14: Essential Digital Skills	1.5:00	1.5:00		3:00
Module 15: Entrepreneurship	7:00	0:00		7:00
Module 16: Customer Service	4:00	0:00		4:00
Module 17: Getting ready for apprenticeship & Jobs	1:00	1:00		2:00
Total Duration	115:00	155:00		270:00

Module Details

Module 1: Introduction to the role of a Professional Bicycle Mechanic

Bridge module

Terminal Outcomes:

- Discuss the role and responsibilities of a Professional Bicycle Mechanic.

Duration: <05:00>	Duration: <00:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the role and responsibilities of a Professional Bicycle Mechanic. • Discuss the job opportunities for a Professional Bicycle Mechanic in the automobile industry. • Explain about Indian EV manufacturing market. • List various types of e-bikes and different products/ models manufactured by Original Equipment Manufacturers (OEMs). • Illustrate the workshop structure. • Describe role and responsibilities of different people in the workshop. • Discuss the maintenance standards and procedures followed in organisation. • Identify the standard checklists and schedules recommended by OEM. 	
Classroom Aids:	
Whiteboard, marker pen, projector, standard checklists and schedules samples	
Tools, Equipment and Other Requirements	

Module 2: Work Effectively and Efficiently

Mapped to ASC/N9801, v1.0

Terminal Outcomes:

- Employ appropriate ways to maintain safe and secure working environment.
- Perform work as per the quality standards.

Duration: <09:00>	Duration: <15:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Outline the organizational structure to be followed to report about health, safety and security breaches to the concerned authorities. • List the potential workplace related risks and hazards, their causes and preventions. • State the methods to keep the work area clean and tidy. • Discuss how to complete the given work within the stipulated time period. • Explain how to maintain a proper balance between team and individual goals. • Discuss epidemics and pandemics and their impact on society at large. • Discuss the significance of conforming to basic hygiene practices such as washing hands, using alcohol-based hand sanitizers. • Discuss the use of proper PPE for maintaining health and hygiene at workplace and the process of wearing/discarding them. • Define self-quarantine or self-isolation. • Discuss the importance of identifying and reporting symptoms to the concerned authorities. • Explain the significance of following prescribed rules and guidelines during an epidemic or a pandemic. • Discuss organizational hygiene and sanitation guidelines and ways of reporting breaches/gaps if any. • Discuss the ways of dealing with stress and anxiety during an epidemic or a pandemic. 	<ul style="list-style-type: none"> • Perform routine cleaning of tools, equipment and machines. • Employ various techniques for checking malfunctions in the equipment as per Standard Operating Procedure (SOP). • Apply basic housekeeping practices to ensure that the work area is clean, such as mopping spills and leaks, cleaning grease stains etc. • Demonstrate how to evacuate the workplace in case of an emergency. • Show how to sanitize and disinfect one's work area regularly. • Demonstrate the correct way of washing hands using soap and water. • Demonstrate the correct way of sanitizing hands using alcohol-based hand rubs. • Display the correct way of wearing and removing PPE such as face masks, hand gloves, face shields, PPE suits, etc. • Demonstrate appropriate social and behavioural etiquette (greeting and meeting people, spitting/ coughing/ sneezing, etc.). • Prepare a list of relevant hotline/ emergency numbers.
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	
<ul style="list-style-type: none"> • Personal Protection Equipment: safety glasses, head protection, rubber gloves, safety footwear, warning signs and tapes, fire extinguisher and first aid kit 	

- Sanitization kit, disinfectants, alcohol-based sanitizers, different types of face masks, shields, suits, etc.

Module 3: Optimize Resource Utilization

Mapped to ASC/N9801, v1.0

Terminal Outcomes:

- Use the resources efficiently.
- Apply conservation practices at the workplace.

Duration: <06:00>	Duration: <15:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the ways to optimize usage of resources. • Discuss various methods of waste management and its disposal. • List the different categories of waste for the purpose of segregation • Differentiate between recyclable and non-recyclable waste • State the importance of using appropriate colour dustbins for different types of waste. • Discuss the common sources of pollution and ways to minimize it. 	<ul style="list-style-type: none"> • Perform basic checks to identify any spills and leaks and that need to be plugged /stopped. • Demonstrate different disposal techniques depending upon different types of waste. • Employ different ways to check if equipment/machines are functioning as per requirements and report malfunctioning, if observed. • Employ ways for efficient utilization of material and water • Use energy efficient electrical appliances and devices to ensure energy conservation
Classroom Aids:	
White board/black board marker/chalk, duster, computer or Laptop attached to LCD projector	
Tools, Equipment and Other Requirements	
Different type of waste bins to collect and segregate waste for disposal	

Module 4: Communicate Effectively and Efficiently

Mapped to ASC/N9802, v1.0

Terminal Outcomes:

- Use effective communication and interpersonal skills.
- Apply sensitivity while interacting with different genders and people with disabilities.

Duration: <15:00>	Duration: <25:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the organizational structure for communicating with colleagues, seniors and others. • Discuss the ways to adjust the communication styles to reflect sensitivity towards gender and persons with disability (PwD). • Explain the importance of respecting personal space of colleagues. • State the procedure to receive work instructions and report problems to the supervisor. • List the various organizational policies and procedures to be followed at the workplace. • Describe different ways to rectify commonly occurring errors. • Explain the importance of complying with the instructions/guidelines and procedures while performing tasks related to the job specifications. • Discuss the importance of PwD and gender sensitization. 	<ul style="list-style-type: none"> • Employ different means of communication depending upon the requirement while interacting with others. • Demonstrate using new ways to maintain good relationships with colleagues and supervisor. • Prepare a sample report to send the work status to the supervisor. • Demonstrate how to communicate with different genders and persons with disability (PwD) in a sensitive manner.
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	
Sample of escalation matrix, organisation structure.	

Module 5: Perform maintenance, service and repairing of a bicycle

Mapped to ASC/N1429, v2.0

Terminal Outcomes:

- Identify tools and equipment required for servicing and repairing.
- Demonstrate preparatory activities for diagnosing faults and repairing of a bicycle.
- Demonstrate how to use different techniques for diagnosing faults and repairing a bicycle.

Duration: <30:00>	Duration: <45:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List various components /aggregates and the manufacturer's specifications of a bicycle. • Discuss basic functioning and interconnections of various systems and components of a bicycle. • Describe different types of brakes and braking system of a bicycle. • Explain licensing requirements that need to be taken into account for using electric a bicycle. • Discuss various sources of information available for assessing service and repair requirements of the a bicycle. • Discuss standard schedules and checklists recommended by the OEM/auto component manufacturer for servicing of a bicycle. • List the types of tools and equipment used in different processes of a bicycle maintenance. • List the activities need to perform for preparing a bicycle for fault identification and repairing work. • Discuss the need of customer consent before starting repairing work. • Discuss the safety precautions need to follow during servicing and repairing of a bicycle. • Discuss the symptoms of technical faults, their causes and rectification procedures in a bicycle. • Discuss the importance of using appropriate spare parts and other material for service/maintenance such as grade of oil, lubricants, grease, etc. • Discuss the symptoms of wear and tear w.r.t. components needing replacement. • Identify different methods for disposing 	<ul style="list-style-type: none"> • Show how to collect workshop tools/ measuring devices/ equipment required for the job. • Apply appropriate ways to check the defects and calibration of tools/ measuring devices/ equipment before use. • Apply basic techniques to diagnose faults in a bicycle. • Demonstrate how to check a bicycle for the service and repair requirements based on the customer complaints. • Demonstrate how to use tools and equipment for inspection and repairing of faults in a bicycle. • Apply appropriate ways to estimate time and cost of repairing the faults in a bicycle. • Perform the process of routine service/maintenance as per standard operating procedures. • Employ different corrective actions to be taken for common faults and failures. • Demonstrate how to dismantle and assemble the aggregates that require servicing/repair as per SOP. • Apply appropriate ways to inspect the components requiring adjustment or replacement due to continuous wear and tear. • Show how to check the tire pressure of a bicycle by using a pressure gauge. • Apply appropriate ways to check the functioning, looseness, any adjustment requirements, replacement requirements etc. in the various components/systems of a bicycle. • Show how to repair the common faults in the various components/systems of a bicycle. • Show how to adjust spoke tension and

<p>off waste material such as waste oil, scrap, etc.</p> <ul style="list-style-type: none"> List the necessary precautions so as to avoid any kind of damage to aggregates/ vehicle Explain the health and safety measures and regulations w.r.t. equipment and components during fault diagnosis. 	<p>replace any damaged spokes/ true up the wheel</p> <ul style="list-style-type: none"> Show how to clean and condition dismantled components of bicycle. Apply appropriate ways to overhaul hub, steering system (handlebars, stem and headset), headrest, pedals, crank arm and bottom bracket as per requirement. Demonstrate how to lubricate chain, freewheel or cassette and other parts of bicycle. Show how to adjust the saddle fore, aft and height as per the requirement. Apply appropriate ways to check the performance pf bicycle after completion of repairing activities. Show how to dispose waste material after completion of work by following organisational policies and procedures. Apply ways to maintain the workshop by conducting properly scheduled check/calibration/repairs of tools and equipment.
<p>Classroom Aids:</p>	
<p>Whiteboard, marker pen, projector</p>	
<p>Tools, Equipment and Other Requirements</p>	
<ul style="list-style-type: none"> PPT's, teaching aids, job card, e-bike Vehicle, various body parts, engine, tools and equipment, material, consumables, components/aggregates, lubricants, grease, oil, etc. Tire pressure gauge, puller, gear puller tools, slide hammers etc., scrapers, measuring equipment: vernier calipers, micrometre, feeler gauges, multi-metre etc., hand tools, power tools, lifting/jacking equipment, tensioning equipment Safety materials: Fire extinguisher, safety gloves, aprons, safety glasses, helmet, safety shoe and first-aid kit Cleaning material: Tip cleaner, wire brush (M.S.), cleaning agents, cleaning cloth, waste container, dust pan and brush set, liquid soap, hand towel 	

Module 6: Perform routine service and repairing of an electric bicycle

Mapped to ASC/N14XX, v1.0

Terminal Outcomes:

- Identify tools and equipment required for servicing and repairing.
- Demonstrate preparatory activities for diagnosing faults and repairing of an electric bicycle.
- Demonstrate how to use different techniques for diagnosing faults and repairing an electric bicycle.

Duration: <30:00>	Duration: <45:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List various components /aggregates and the manufacturer's specifications of an electric bicycle. • Discuss basic technology used, functioning and interconnections of various systems and components of an electric bicycle. • Recall fundamental terms, laws and principles of electricity used in EV. • Describe various symbols, units and terms used in wiring diagrams associated with electrical/electric systems/components of an EV. • Describe various electrical and electronic signals such as electrical inputs, outputs, voltage, pulsewidth modulation, digital signal (including infra-red and fiber optics) etc. • Explain legal regulations that need to be taken into account for handling electric vehicles. • Elucidate SOP for receiving vehicles, opening job card, allocation of work, invoicing, vehicle delivery, handling complaints, etc. • Discuss various sources of information available for assessing service and repair requirements of the electric bicycle. • Discuss standard schedules and checklists recommended by the OEM/auto component manufacturer for servicing of electric bicycle. • List the types of tools and equipment used in different processes of an electric bicycle maintenance. • List the activities need to perform for preparing an electric bicycle for fault identification and repairing work. • Discuss the safety precautions need to 	<ul style="list-style-type: none"> • Analyse the job card to plan diagnostic activities as per the complaints mentioned in the job card. • Show how to collect workshop tools/ measuring devices/ equipment required for the job. • Apply appropriate ways to check the defects and calibration of tools/ measuring devices/ equipment before use. • Apply basic techniques to diagnose faults in the mechanical and electrical/ electronic components of an electric bicycle. • Demonstrate how to check an electric bicycle for the service and repair requirements based on the job card. • Perform steps to report about malfunctions/repairs in the electric bicycle beyond own scope to the concerned person. • Demonstrate how to use tools and equipment for inspection and repairing of faults in an electric bicycle. • Demonstrate how to use computer, on-line application and OEM technical information/assistance portals. • Employ various precautions and safety measures to ensure that no damage is caused to the vehicle during diagnosis. • Show how to clean and condition dismantled mechanical and electrical components of an electric bicycle. • Demonstrate how to test electrical and electronic systems of an electric bicycle by following SOP. • Demonstrate how to perform service and repairing activities on the mechanical system of an electric bicycle.

<p>follow during servicing and repairing of an electric bicycle.</p> <ul style="list-style-type: none"> • Discuss the symptoms of technical faults, their causes and rectification procedures in electric bicycle. • Describe organizational/professional code of ethics and standards of practice. • Discuss the documents to be maintained w.r.t inspection, troubleshooting and diagnosis of faults. • Explain the health and safety measures and regulations w.r.t. equipment and components during fault diagnosis. 	<ul style="list-style-type: none"> • Show how to apply appropriate grade of oil or other lubricant on the mechanical components of electric bicycle. • Demonstrate how to conduct test ride of an electric bicycle for assessing after servicing and repairing by following instructions of Lead Service Technician. • Demonstrate how to test and inspect vehicle mechanical and electrical systems by following instructions of Lead Service Technician. • Apply appropriate ways to interpret and compare results of diagnostic inspections/ tests with electric bicycle specifications and regulatory requirements. • Prepare a report on the results of diagnosis or troubleshooting for lead technician by following organisational procedures. • Apply appropriate ways to check the performance of electric bicycle post repair. • Show how to return leftover components and tools to store and dispose waste material after completion of work by following organisational policies and procedures.
<p>Classroom Aids:</p>	
<p>Whiteboard, marker pen, projector</p>	
<p>Tools, Equipment and Other Requirements</p>	
<ul style="list-style-type: none"> • PPT's, teaching aids, job card, electric bicycle • Vehicle, various body parts, engine, tools and equipment, material, consumables, components/aggregates, lubricants, grease, oil, etc. • Pressure indicators: fuel pressure testers, manifold gauge sets, oil pressure gauges, tire pressure gauges etc., pullers: ball joint separators, bearing pullers, gear puller tools, slide hammers etc., trim or moulding tools: carbon scrapers, gasket scrapers, scrapers, spoons etc., measuring equipment: vernier calipers, micrometre, feeler gauges, multi-metre, flow metre, temp gauge, dial gauge etc., other tools: hand tools, power tools, lifting/jacking equipment, tensioning equipment, security activator etc., tools for other tasks such as cleaning of vehicles, brake bleeding, wheel alignment, AC gas charging etc. • Safety materials: Fire extinguisher, safety gloves, aprons, safety glasses, helmet, safety shoe and first-aid kit • Cleaning material: Tip cleaner, wire brush (M.S.), cleaning agents, cleaning cloth, waste container, dust pan and brush set, liquid soap, hand towel 	

Module 7: Introduction to Employability Skills

Mapped to

Terminal Outcomes:

- Discuss about Employability Skills in meeting the job requirements

Duration: <1:00>	Duration: <0:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of Employability Skills in meeting the job requirements 	<ul style="list-style-type: none"> •
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 8: Constitutional values - Citizenship

Mapped to

Terminal Outcomes:

- Discuss about constitutional values to be followed to become a responsible citizen

Duration: <0.5:00>	Duration: <0.5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. 	<ul style="list-style-type: none"> • Show how to practice different environmentally sustainable practices
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 9: Becoming a Professional in the 21st Century

Mapped to

Terminal Outcomes:

- Demonstrate professional skills required in 21st century

Duration: <0.5:00>	Duration: <0.5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss 21st century skills. 	<ul style="list-style-type: none"> • Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 10: Basic English Skills

Mapped to

Terminal Outcomes:

- Practice basic English speaking.

Duration: <0:00>	Duration: <2:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
	<ul style="list-style-type: none"> • Use appropriate basic English sentences/phrases while speaking
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 11: Communication Skills

Mapped to

Terminal Outcomes:

- Practice basic communication skills.

Duration: <0:00>	Duration: <4:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
	<ul style="list-style-type: none"> • Demonstrate how to communicate in a well -mannered way with others. • Demonstrate working with others in a team
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 12: Diversity & Inclusion

Mapped to

Terminal Outcomes:

- Describe PwD and gender sensitisation.

Duration: <0.5:00>	Duration: <0.5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of reporting sexual harassment issues in time 	<ul style="list-style-type: none"> • Show how to conduct oneself appropriately with all genders and PwD
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 13: Financial and Legal Literacy

Mapped to

Terminal Outcomes:

- Describe ways of managing expenses, income, and savings.

Duration: <4:00>	Duration: <0:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of using financial products and services safely and securely. • Explain the importance of managing expenses, income, and savings. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws 	<ul style="list-style-type: none"> •
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 14: Essential Digital Skills

Mapped to

Terminal Outcomes:

- Demonstrate procedure of operating digital devices and associated applications safely.

Duration: <1.5:00>	Duration: <1.5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely 	<ul style="list-style-type: none"> • Show how to operate digital devices and use the associated applications and features, safely and securely
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 15: Entrepreneurship

Mapped to

Terminal Outcomes:

- Describe opportunities as an entrepreneur.

Duration: <7:00>	Duration: <0:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges. 	
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 16: Customer Service

Mapped to

Terminal Outcomes:

- Describe ways of maintaining customer.

Duration: <4:00>	Duration: <0:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Differentiate between types of customers. • Explain the significance of identifying customer needs and addressing them. • Discuss the significance of maintaining hygiene and dressing appropriately. 	
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 17: Getting ready for apprenticeship & Jobs

Mapped to

Terminal Outcomes:

- Describe ways of preparing for apprenticeship & Jobs appropriately.

Duration: <1:00>	Duration: <1:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of dressing up neatly and maintaining hygiene for an interview • Discuss how to search and register for apprenticeship opportunities 	<ul style="list-style-type: none"> • Create a biodata • Use various sources to search and apply for jobs
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
10 th Pass	Any	7	Any	1	Any	NA
ITI	Any	3	Any	1	Any	NA
ITI	Any	4	Any	0	Any	NA
Diploma	Automobile/Mechanical /Electrical/Electronics Engineering	2	Automobile/Mechanical /Electrical/Electronics Engineering	1	Automobile/Mechanical /Electrical/Electronics Engineering	NA
Diploma	Automobile/Mechanical /Electrical/Electronics Engineering	3	Electrical / Automobile	0	Electrical / Automobile	NA

Trainer Certification	
Domain Certification	Platform Certification
“Professional Bicycle Mechanic, ASC/Q1434, version 1.0”. Minimum accepted score is 80%.	“Trainer, MEP/Q2601 v1.0” Minimum accepted score is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
10 th Pass	Any	8	Any	1	Any	NA
ITI	Any	4	Any	1	Any	NA
ITI	Any	5	Any	0	Any	NA
Diploma	Automobile/Mechanical/Electrical/Electronics Engineering	3	Automobile/Mechanical/ Electrical/Electronics Engineering	1	Automobile/Mechanical/ Electrical/Electronics Engineering	NA
Diploma	Automobile/Mechanical/Electrical/Electronics Engineering	4	Automobile/Mechanical/ Electrical/Electronics Engineering	0	Automobile/Mechanical/ Electrical/Electronics Engineering	NA

Assessor Certification	
Domain Certification	Platform Certification
“Professional Bicycle Mechanic, ASC/Q1434, version 1.0”. Minimum accepted score is 80%.	“Assessor; MEP/Q2701 v1.0” Minimum accepted score is 80%.

Assessment Strategy

1. Assessment System Overview:
 - Batches assigned to the assessment agencies for conducting the assessment on SDMS/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
2. Testing Environment:
 - 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.
 - If the batch size is more than 30, then there should be 2 Assessors.
 - 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 verified by the other subject Matter Experts
 - Questions are mapped with NOS and PC
 - Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
 - Assessor must be ToA certified & trainer must be ToT 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
- Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
SOP	Standard Operating Procedure
WI	Work Instructions
PPE	Personal Protective equipment