



Model Curriculum

QP Name: Automotive Quality Control Jr. Inspector

QP Code: ASC/Q6303

NSQF Level: 4

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Training Parameters

Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Automotive Quality Assurance
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3139.5001
Minimum Educational Qualification and Experience	12th pass or equivalent with 1-year relevant experience Or 10th pass with 2-year NTC/NAC with 1 year of relevant experience. Or 10th pass with 3 Years of Experience Or NSQF Level-3 Certificate with 1.5 Years of Experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	19 years
Last Reviewed On	18/02/2025
Next Review Date	18/02/2028
NSQC Approval Date	18/02/2025
Model Curriculum Creation Date	18/02/2025
Model Curriculum Valid Up to Date	18/02/2028
Minimum Duration of the Course	420 Hours 00 Minutes
Maximum Duration of the Course	420 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.

- Carry out quality inspection activities such as inspection of automotive parts, products and processes, measuring dimensions of part and product, etc.
- 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	0:00			05:00
Module 1: Introduction to the role of an Automotive Quality Control Jr. Inspector	05:00	0:00			05:00
ASC/N9803 – Organize work and resources (Manufacturing) NOS Version No. – 1.0 NSQF Level – 3	25:00	30:00			55:00
Module 2: Organize work and resources according to safety and conservation standards	25:00	30:00			55:00
ASC/N6303 – Inspect and maintain the automotive product and process quality and implement corrective actions NOS Version No. – 2.0 NSQF Level - 3	95:00	205:00	30:00		330:00
Module 3: Inspect and maintain quality of automotive products and related processes	95:00	205:00	30:00		330:00
DGT/VSQ/N0101 – Employability Skills (30 hours) NOS Version No. – 1.0 NSQF Level – 3	12:00	18:00			30:00
Module 4: Introduction to Employability Skills	0.5:00	0.5:00			1:00
Module 5: Constitutional values – Citizenship	0.5:00	0.5:00			1:00

Module 6: Becoming a Professional in the 21st Century	0.5:00	0.5:00			1:00
Module 7: Basic English Skills	1:00	1:00			2:00
Module 8: Communication Skills	1.5:00	2.5:00			4:00
Module 9: Diversity & Inclusion	0.5:00	0.5:00			1:00
Module 10: Financial and Legal Literacy	1.5:00	2.5:00			4:00
Module 11: Essential Digital Skills	1:00	2:00			3:00
Module 12: Entrepreneurship	2.5:00	4.5:00			7:00
Module 13: Customer Service	1.5:00	2.5:00			4:00
Module 14: Getting ready for apprenticeship & Jobs	1:00	1:00			2:00
Total Duration	137:00	253:00	30:00		420:00

Module Details

Module 1: Introduction to the role of an Automotive Quality Control Jr. Inspector

Bridge module

Terminal Outcomes:

- Discuss the role and responsibilities of an Automotive Quality Control Jr. Inspector .

Duration: <05:00> Theory – Key Learning Outcomes	Duration: <00:00> Practical – Key Learning Outcomes
<ul style="list-style-type: none"> List the role and responsibilities of an Automotive Quality Control Jr. Inspector Discuss the job opportunities of an Automotive Quality Control Jr. Inspector Explain about Indian automotive manufacturing market. List various automobile Original Equipment Manufacturers (OEMs) and different products/ models manufactured by them. Discuss the standards and procedures involved in the different processes of quality inspection. 	
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 2: Organize work and resources according to safety and conservation standards

Mapped to ASC/N9803, v1.0

Terminal Outcomes:

- Employ appropriate ways to maintain safe and secure working environment.
- Perform work as per the quality standards.
- Apply conservation practices at the workplace.

Duration: <25:00>	Duration: <30:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> List the potential workplace related risks and hazards, their causes and preventions. Identify PPE to be used at workplace. Identify various warning signs used at the workplace. Describe appropriate strategies to deal with emergencies and accidents at the workplace. Outline the organizational structure to be followed to report about health, safety and security breaches to the concerned authorities. Discuss the importance of keeping work area clean and tidy. Discuss the significance of conforming to basic hygiene practices such as washing hands, using alcohol based hand sanitizers or soap. Discuss organizational hygiene and sanitation guidelines and ways of reporting breaches/gaps if any to the concerned authorities. Discuss the ways of dealing with stress and anxiety. Discuss how to complete the given work within the stipulated time period. Explain how to maintain a proper balance between team and individual goals. Explain 5S guidelines at workplace. List the various materials used at the workplace. Explain organisational recommended procedure for storage of tools, equipment and material after completion of work. 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. 	<ul style="list-style-type: none"> Apply appropriate safety practices to ensure safety of people at the workplace Display the correct way of wearing and removing PPE such as face masks, hand gloves, face shields, PPE suits, etc. Demonstrate the use of fire extinguisher. Apply basic first aid procedure in case of emergencies. Perform routine cleaning of tools, equipment and machines. Employ various techniques for checking malfunctions in the equipment as per Standard Operating Procedure (SOP). 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. Demonstrate how to evacuate the workplace in case of an emergency. Demonstrate sorting of materials, tools and equipment and spare parts after completion of work. Demonstrate the steps involved in storage of tools, equipment and material after completion of work. Perform basic checks to identify any spills and leaks and that need to be plugged /stopped. Demonstrate different disposal techniques depending upon 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.

- Discuss common practices for conserving electricity at workplace.
- Discuss the common sources of pollution and ways to minimize it.

Classroom Aids:

Whiteboard, marker pen, projector

Tools, Equipment and Other Requirements

- Housekeeping material: Cleaning agents, cleaning cloth, waste container, dust pan and brush set, liquid soap, hand towel, fire extinguisher
- Safety gears: Safety shoes, ear plug, goggles, gloves, helmet, first-aid kit

Module 3: Inspect and maintain quality of automotive products and related processes

Mapped to ASC/N6303, v2.0

Terminal Outcomes:

- Identify testing equipment, measuring instruments, gauges, parts etc. required for quality inspection job.
- Demonstrate methods and techniques for quality inspection of automotive parts, products and related processes.
- Prepare and maintain documents and reports related to quality inspection work.

Duration: <95:00>	Duration: <205:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Discuss organisational quality inspection standards and processes. Discuss the information collected from the inspection check sheet about the inspection tasks and how to confirm it from the superior. Classify measuring instruments as direct/indirect, precision/non-precision etc, gauges. List testing equipment, measuring instruments, gauges, parts etc. required during the quality inspection process. Discuss the organisational process of collecting and arranging the testing equipment, measuring instruments, gauges, parts etc. from the store. Summarise the steps to be performed for checking the calibration of tools, gauges and measuring instruments before use. Discuss the safety practices to avoid any hazard and accident during quality inspection activities. List QMS system guidelines followed in the organization. Recall manufacturing process for each automotive part and product. Explain methods and techniques such as ABQP and RCA of inspecting the quality of automotive parts, products and related processes. List inspection checkpoints for the parts, product and process. Explain ways of measuring the dimensions of automotive part or product. 	<ul style="list-style-type: none"> Demonstrate the standard operating procedures to use the testing equipment, measuring instruments, gauges, parts etc. required during the quality inspection process. Show how to collect the required testing equipment, measuring instruments, gauges, parts etc. from the store. Apply appropriate ways of checking the calibration of tools, gauges and measuring instruments before use. Show how to visually inspect the part or product for scratches, dents, damages, packing etc. Perform the steps to inspect the dimensions and function of part or product. Show how to judge the part or product through feel, touch, sound, smell, etc. Apply appropriate ways to maintain and preserve the tested samples of automotive part or product for future use. Show how to check the sticker/number/label of the inspected automotive part or product. Apply appropriate inspection techniques to verify the process control items. Prepare a sample first-off inspection report as per the process inspection standard/process parameter sheet/control plan. Prepare records, reports and documents related to quality inspection process as per SOP.

<ul style="list-style-type: none"> • Elucidate the importance of maintaining and preserving the tested samples of automotive part or product as limit samples. • Discuss inspection techniques to verify the quality and effectiveness of automotive product and process. • Discuss the records, reports and documents needed to be maintained and updated as per SOP. • Identify different methods for disposing off scrap. • Recall process of operating softwares like SAP, ERP etc. • Describe poka yoke, mould functioning, fixture condition etc. • Describe problem solving & analysis tools like 8Ds, five why analysis etc. 	<ul style="list-style-type: none"> • Show how to raise scrap note and dispose scrapped part or product as per organisational guidelines. • Role play a situation on how to coordinate with the team as a CFT member to analyse the problems and identify corrective actions pertaining to the products handled. • Demonstrate ways to collect the data related to problems identified in inspection process. • Role play a situation on how to coordinate with the team to analyse the problems identified in inspection process. • Dramatise how to coordinate with the process line leader/supervisor and implement corrective action for discrepancies identified in the inspection report. • Role play a situation on how to coordinate with the team to identify opportunities for improvements in productivity, quality, cost, safety and morale. • Apply appropriate ways to verify the daily check items for e.g. poka yoke, mould functioning, fixture condition etc.
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Classroom Aids:

Whiteboard, marker pen, projector

Tools, Equipment and Other Requirements

NG Parts With Known Dimension, Air Gauge Unit/Plugs/Rings, Apron, Bore Gauge, Centre Bench, Defective Samples, Dial Gauge/With Stand, Fixtures, Gauges, Height Gauge, Labels / Stickers, Sample Inspection Report Format, Limit Samples for Visual Defects, Manuals for SPC, APQP, MSA TS Standards, Micrometer, Ok Parts With Known Dimension, Parts (Within & Out Of Tolerance As Per Drawings), Plug ,Ring & Taper Go/No Go Gauges, Profile Gauge, Sample Parts, Screw Jack, Standard V Block/Magnetic, Surface Plate With Stand, Thread Plug/Ring Gauge, Tools, Vernier Caliper

Module 4: Introduction to Employability Skills

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

- Discuss about Employability Skills in meeting the job requirements

Duration: <0.5:00>	Duration: <0.5:00>
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"> • Demonstrate Employability Skills

Classroom Aids:

Whiteboard, marker pen, projector

Tools, Equipment and Other Requirements

Module 5: Constitutional values - Citizenship

Mapped to DGT/VSQ/N0101

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 6: Becoming a Professional in the 21st Century

Mapped to DGT/VSQ/N0101

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 7: Basic English Skills

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

- Practice basic English speaking.

Duration: <1:00>	Duration: <1:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss need of basic English skills. 	<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 8: Communication Skills

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

- Practice basic communication skills.

Duration: <1.5:00>	Duration: <2.5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss need of communication skills • Describe importance of team work 	<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 9: Diversity & Inclusion

Mapped to DGT/VSQ/N0101

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 10: Financial and Legal Literacy

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

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

Duration: <1.5:00>	Duration: <2.5:00>
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"> Demonstrate ways of managing expenses, income, and savings.
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 11: Essential Digital Skills

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

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

Duration: <1:00>	Duration: <2:00>
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 12: Entrepreneurship

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

- Describe opportunities as an entrepreneur.

Duration: <2.5:00>	Duration: <4.5:00>
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 	<ul style="list-style-type: none"> Demonstrate ways 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 13: Customer Service

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

- Describe ways of maintaining customer.

Duration: <1.5:00>	Duration: <2.5:00>
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. 	<ul style="list-style-type: none"> Show how to maintain hygiene and dressing appropriately.
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 14: Getting ready for apprenticeship & Jobs

Mapped to DGT/VSQ/N0101

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

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Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Fitter/Turner	3	Quality	1	Quality	NA
ITI	Fitter/Turner	4	Quality	0	Quality	NA
Diploma	Mechanical/Automobile	2	Quality	1	Quality	NA
Diploma	Mechanical/Automobile	3	Quality	0	Quality	NA

Trainer Certification	
Domain Certification	Platform Certification
“Automotive Quality Control Jr. Inspector , ASC/Q6303, version 2.0”. Minimum accepted score is 80%.	Recommended that the trainer is certified for the job role “Trainer (VET and Skills)”, Mapped to Qualification Pack: MEP/Q2601, V2.0” Minimum accepted score is 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Fitter/Turner	4	Quality	1	Quality	NA
ITI	Fitter/Turner	5	Quality	0	Quality	NA
Diploma	Mechanical/Automobile	3	Quality	1	Quality	NA
Diploma	Mechanical/Automobile	4	Quality	0	Quality	NA

Assessor Certification	
Domain Certification	Platform Certification
“Automotive Quality Control Jr. Inspector , ASC/Q6303, version 2.0”. Minimum accepted score is 80%.	Recommended that the Assessor is certified for the job role “Assessor (VET and Skills)”, Mapped to Qualification Pack: MEP/Q2701, V2.0” 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