

Qualification Pack



Automotive Service Technician (Two and Three Wheelers)

QP Code: ASC/Q1411

Version: 1.0

NSQF Level: 4

Automotive Skills Development Council || 153, Gr Floor, Okhla Industrial Area, Phase - III, Leela Building
New Delhi - 110020

Qualification Pack

Contents

ASC/Q1411: Automotive Service Technician (Two and Three Wheelers)	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
ASC/N0001: Plan and organise work to meet expected outcomes	5
ASC/N0002: Work effectively in a team	9
ASC/N0003: Maintain a healthy, safe and secure working environment	13
ASC/N1420: Carry out routine servicing and minor repairs of aggregates of two and three wheelers ...	17
Assessment Guidelines and Weightage	25
<i>Assessment Guidelines</i>	25
<i>Assessment Weightage</i>	25
Acronyms	27
Glossary	28

Qualification Pack

ASC/Q1411: Automotive Service Technician (Two and Three Wheelers)

Brief Job Description

An Auto Service Technician (two and three wheelers) is responsible for the repairing and routine servicing & maintenance (including electrical and mechanical aggregates) of two/ three wheeler vehicles.

Personal Attributes

An individual on this job must have good communication and interpersonal skills in addition to being a team player, as the job requires coordination with other technicians as well. The individual must have a technical bend of mind to understand the technical aspects of a two/ three wheeler, which may be different from a four-wheeler. The individual must know how to drive a two/ three wheeler to practically test drive and identify any additional repair or service requirements in the electrical and mechanical aggregates.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N0001: Plan and organise work to meet expected outcomes](#)
2. [ASC/N0002: Work effectively in a team](#)
3. [ASC/N0003: Maintain a healthy, safe and secure working environment](#)
4. [ASC/N1420: Carry out routine servicing and minor repairs of aggregates of two and three wheelers](#)

Qualification Pack (QP) Parameters

Sector	Automotive
Sub-Sector	Automotive Vehicle Service
Occupation	Technical Service and Repair
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7231.0501
Minimum Educational Qualification & Experience	10th Class with 3-5 years of experience For all qualifications. 1-2 years in case of ASDC Auto Service Technician Level 4 Certificate or Diploma in Automotive Repair

Qualification Pack

Minimum Level of Education for Training in School	
Pre-Requisite License or Training	On the job training: Desirable for ASDC Auto Service Technician (two and three wheelers) Certificate or Diploma in Automotive Repair Compulsory for all other qualifications
Minimum Job Entry Age	18 Years
Last Reviewed On	10/06/2013
Next Review Date	31/03/2021
Deactivation Date	31/03/2021
NSQC Approval Date	20/07/2015
Version	1.0

Qualification Pack

ASC/N0001: Plan and organise work to meet expected outcomes

Description

This NOS unit is about planning and organising an individuals work in order to complete it to the required standards on time.

Scope

This unit/task covers the following:

- work requirements including various activities, deliverables or work output required in the given time, maintain set quality standards
- appropriate use of resources (both material / equipment's and manpower)

Elements and Performance Criteria

Work requirements including various activities within the given time and set quality standards

To be competent, the user/individual on the job must be able to:

- PC1.** keep immediate work area clean and tidy
- PC2.** treat confidential information as per the organisations guidelines
- PC3.** work in line with organisations policies and procedures
- PC4.** work within the limits of job role
- PC5.** obtain guidance from appropriate people, where necessary
- PC6.** ensure work meets the agreed requirements

Appropriate use of resources

To be competent, the user/individual on the job must be able to:

- PC7.** establish and agree on work requirements with appropriate people
- PC8.** manage time, materials and cost effectively
- PC9.** use resources in a responsible manner

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organisations policies, procedures and priorities for area of work, role and responsibilities in carrying out that work
- KU2.** the limits of responsibilities and when to involve others
- KU3.** specific work requirements and who these must be agreed with
- KU4.** the importance of having a tidy work area and how to do this
- KU5.** how to prioritize workload according to urgency and importance and the benefits of this
- KU6.** the organisations policies and procedures for dealing with confidential information and the importance of complying with these
- KU7.** the purpose of keeping others updated with the progress of work

Qualification Pack

- KU8.** who to obtain guidance from and the typical circumstances when this may be required
- KU9.** the purpose and value of being flexible and adapting work plans
- KU10.** how to complete tasks accurately by following standard procedures
- KU11.** technical resources needed for work and how to obtain and use these

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write in at least one language
- GS2.** read instructions, guidelines/procedures
- GS3.** ask for clarification and advice from appropriate persons
- GS4.** communicate orally with colleagues
- GS5.** make a decision on a suitable course of action appropriate for accurately completing the task within resources
- GS6.** agree objectives and work requirements
- GS7.** plan and organise work to achieve targets and deadlines
- GS8.** deliver consistent and reliable service to customers
- GS9.** check own work and ensure it meets customer requirements
- GS10.** anomalies to the concerned persons
- GS11.** analyse problems and identify work-arounds taking help from
- GS12.** apply own judgement to identify solutions in different situations

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Work requirements including various activities within the given time and set quality standards</i>	16	47	-	-
PC1. keep immediate work area clean and tidy	2	9	-	-
PC2. treat confidential information as per the organisations guidelines	2	6	-	-
PC3. work in line with organisations policies and procedures	3	8	-	-
PC4. work within the limits of job role	3	6	-	-
PC5. obtain guidance from appropriate people, where necessary	3	7	-	-
PC6. ensure work meets the agreed requirements	3	11	-	-
<i>Appropriate use of resources</i>	9	28	-	-
PC7. establish and agree on work requirements with appropriate people	3	9	-	-
PC8. manage time, materials and cost effectively	3	11	-	-
PC9. use resources in a responsible manner	3	8	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0001
NOS Name	Plan and organise work to meet expected outcomes
Sector	Automotive
Sub-Sector	Manufacturing and R&D, Sales and Service, Road Transportation
Occupation	Auto Components /Aggregates Repair
NSQF Level	4
Credits	NA
Version	1.0
Last Reviewed Date	10/06/2013
Next Review Date	10/06/2015
NSQC Clearance Date	20/07/2015

Qualification Pack

ASC/N0002: Work effectively in a team

Description

This NOS unit is about working effectively with colleagues, either in individuals own work group or in other work groups within organisation

Scope

This unit/task covers the following: Colleagues:

- Superiors
- Members of own work group
- People in other work groups within or outside the organisation Communicate:
- Face-to-face
- By telephone
- In writing

Elements and Performance Criteria

Effective communication

To be competent, the user/individual on the job must be able to:

- PC1.** maintain clear communication with colleagues
- PC2.** work with colleagues
- PC3.** pass on information to colleagues in line with organisational requirements
- PC4..** work in ways that show respect for colleagues
- PC5.** carry out commitments made to colleagues
- PC6.** let colleagues know in good time if cannot carry out commitments, explaining the reasons
- PC7.** identify problems in working with colleagues and take the initiative to solve these problems
- PC8.** follow the organisations policies and procedures for working with colleagues
- PC9.** ability to share resources with other members as per priority of tasks

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organisations policies and procedures for working withcolleagues, role and responsibilities in relation to this
- KU2.** the importance of effective communication and establishing goodworking relationships with colleagues
- KU3.** different methods of communication and the circumstances inwhich it is appropriate to use these
- KU4.** benefits of developing productive working relationships withcolleagues
- KU5.** the importance of creating an environment of trust and mutualrespect
- KU6.** whether not meeting commitments, will have implications onindividuals and the organisation

Qualification Pack

- KU7.** different types of information that colleagues might need and the importance of providing this information when it is required
- KU8.** the importance of problems, from colleagues perspective and how to provide support, where necessary, to resolve these

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** complete well written work with attention to detail
- GS2.** read instructions, guidelines/procedures
- GS3.** listen effectively and orally communicate information
- GS4.** make decisions on a suitable course of action or response
- GS5.** plan and organise work to achieve targets and deadlines
- GS6.** check that the work meets customer requirements
- GS7.** deliver consistent and reliable service to customers
- GS8.** apply problem solving approaches in different situations
- GS9.** apply balanced judgements to different situations
- GS10.** apply good attention to detail
- GS11.** check that the work is complete and free from errors
- GS12.** get work checked by peers
- GS13.** work effectively in a team environment

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Effective communication</i>	25	75	-	-
PC1. maintain clear communication with colleagues	4	10	-	-
PC2. work with colleagues	2	7	-	-
PC3. pass on information to colleagues in line with organisational requirements	3	8	-	-
PC4.. work in ways that show respect for colleagues	3	8	-	-
PC5. carry out commitments made to colleagues	2	8	-	-
PC6. let colleagues know in good time if cannot carry out commitments, explaining the reasons	2	8	-	-
PC7. identify problems in working with colleagues and take the initiative to solve these problems	4	9	-	-
PC8. follow the organisations policies and procedures for working with colleagues	3	9	-	-
PC9. ability to share resources with other members as per priority of tasks	2	8	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0002
NOS Name	Work effectively in a team
Sector	Automotive
Sub-Sector	Manufacturing and R&D, Sales and Service, Road Transportation
Occupation	Maintenance
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	23/09/2013
Next Review Date	30/09/2015
NSQC Clearance Date	28/09/2015

Qualification Pack

ASC/N0003: Maintain a healthy, safe and secure working environment

Description

This NOS unit is about monitoring the working environment and making sure it meets requirements for health, safety and security

Scope

This unit/task covers the following:

- Resources (both material & manpower) needed to maintain a safe working environment as per the prevalent norms & government policies including emergency procedures for illness, accidents, fires or any other reason which may involve evacuation of the premises

Elements and Performance Criteria

Resources needed to maintain a safe, secure working environment

To be competent, the user/individual on the job must be able to:

- PC1.** comply with organisations current health, safety and security policies and procedures
- PC2.** report any identified breaches in health, safety, and security policies and procedures to the designated person
- PC3..** Coordinate with other resources at the workplace to achieve the healthy, safe and secure environment for all incorporating all government norms esp. for emergency situations like fires, earthquakes etc.
- PC4.** identify and correct any hazards like illness, accidents, fires or any other natural calamity safely and within the limits of individuals authority
- PC5.** report any hazards outside the individuals authority to the relevant person in line with organisational procedures and warn other people who may be affected
- PC6.** follow organisations emergency procedures for accidents, fires or any other natural calamity
- PC7.** identify and recommend opportunities for improving health, safety, and security to the designated person
- PC8.** complete all health and safety records are updates and procedures well defined

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** legislative requirements and organisations procedures for health, safety and security and individuals role and responsibilities in relation to this
- KU2.** what is meant by a hazard, including the different types of health and safety hazards that can be found in the workplace
- KU3.** how and when to report hazards
- KU4.** the limits of responsibility for dealing with hazards

Qualification Pack

- KU5.** the organisations emergency procedures for different emergency situations and the importance of following these
- KU6.** the importance of maintaining high standards of health, safety and security
- KU7.** implications that any non-compliance with health, safety and security may have on individuals and the organisation
- KU8.** different types of breaches in health, safety and security and how and when to report these
- KU9.** evacuation procedures for workers and visitors
- KU10.** how to summon medical assistance and the emergency services, where necessary
- KU11.** how to use the health, safety and accident reporting procedures and the importance of these

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** complete accurate, well written work with attention to detail
- GS2.** read instructions, guidelines/procedures/rules
- GS3.** listen and orally communicate information
- GS4.** make decisions on a suitable course of action or response
- GS5.** plan and organise work to achieve targets and deadlines
- GS6.** build and maintain positive and effective relationships with colleagues and customers
- GS7.** apply problem solving approaches in different situations
- GS8.** analyse data and activities
- GS9.** apply balanced judgements to different situations
- GS10.** apply good attention to detail
- GS11.** check that the work is complete and free from errors
- GS12.** get work checked by peers
- GS13.** work effectively in a team environment

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Resources needed to maintain a safe, secure working environment</i>	25	75	-	-
PC1. comply with organisations current health,safety and security policies and procedures	3	9	-	-
PC2. report any identified breaches in health,safety, and security policies and procedures to the designated person	3	10	-	-
PC3.. Coordinate with other resources at the workplace to achieve the healthy, safe and secure environment for all incorporating all government norms esp. for emergency situations like fires,earthquakes etc.	3	10	-	-
PC4. identify and correct any hazards like illness, accidents, fires or any other natural calamity safely and within the limits of individuals authority	5	10	-	-
PC5. report any hazards outside the individuals authority to the relevant person in line with organisational procedures and warn other people who may be affected	3	9	-	-
PC6. follow organisations emergency procedures for accidents, fires or any other natural calamity	3	10	-	-
PC7. identify and recommend opportunities for improving health,safety, and security to the designated person	3	8	-	-
PC8. complete all health and safety records are updates and procedures well defined	2	9	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0003
NOS Name	Maintain a healthy, safe and secure working environment
Sector	Automotive
Sub-Sector	Manufacturing and R&D, Sales and Service, Road Transportation
Occupation	Auto Components/Aggregates Repair
NSQF Level	4
Credits	NA
Version	1.0
Last Reviewed Date	10/06/2013
Next Review Date	10/06/2015
NSQC Clearance Date	20/07/2015

Qualification Pack

ASC/N1420: Carry out routine servicing and minor repairs of aggregates of two and three wheelers

Description

This NOS unit is about an Auto Service Technician carrying out service, repairs and maintenance activities of various aggregates (including electrical and mechanical aggregates) of two and three wheelers

Scope

This unit/task covers the following:

- carry out routine servicing of two/ three wheeler including various aggregates (scheduled, free and paid maintenance)
- carry out maintenance activities of the two/ three wheeler vehicle (including oil, lubricant, coolant change and greasing)
- carry out minor service and repair of two/ three wheeler vehicle (including mechanical and electrical aggregates)

Elements and Performance Criteria

Carry out routine service & minor repairs of aggregates of two & three wheelers

To be competent, the user/individual on the job must be able to:

- PC1.** . understand the auto component manufacturer specifications related to the various components/ aggregates in the two/ three wheeler vehicle
- PC2.** . follow standard operating procedures for using workshop tools and equipment for service and minor aggregate repairs in the two/ three wheeler vehicle
- PC3.** . conduct test drives to assess need for repairs, calibration or any other adjustments in the electrical/ mechanical aggregates in the two/ three wheeler vehicle
- PC4.** . review the job card and understand work to be carried out
- PC5.** . ensure OEM recommended procedure and checklist is followed for routine servicing in case of non-routine service or repair, confirm tasks to be carried out with superior
- PC6.** . calibrate, align and adjust settings, alignment, pressures, tension, speeds and levels relevant to: engine and aggregates transmission system chassis electrical and electronic components Scooter (two stroke engine) Scooter (four stroke engine) Motor cycle (two stroke engine) Motor cycle (four stroke engine) Disc & drum brakes system other components (including to valves, ignition, fuel and emissions, transmission, lights, tyres, steering and body fittings)
- PC7.** . ensure that for routine maintenance and service, the correct spare parts and appropriate grade of lubricants, coolant, oils and grease required have been obtained
- PC8.** . ensure all dismantled components (including mechanical and electrical aggregates) are cleaned and conditioned prior to reassembly
- PC9.** . identify and change components requiring change due to continuous wear and tear including: oil and air filters belts wiper blades brake linings and pads drive
- PC10.** . ensure disposal of materials (including waste oil, scrap of failed parts/ aggregates) in accordance with the organisations policies

Qualification Pack

- PC11.** understand the various precautions to be taken to avoid damage to the vehicle and its components while working on other aggregates
- PC12.** record all service and repairs carried out and ensure completeness of tasks assigned before releasing vehicle for the next procedure
- PC13.** ensure all workshop tools, equipment and workstations are adequately maintained by carrying out scheduled checks, calibration and timely repairs where necessary
- PC14.** ensure any malfunctions observed in tools and equipment are reported to the concerned persons
- PC15.** ensure any other repair requirements observed in the other components/ aggregates systems (like engine, gear box etc.) while repairing/ overhauling of braking systems are reported to supervisor/ service advisor for further inspection by other specialists
- PC16.** able to measure/ inspect the machining or any other repair done from an outside source/ local machining garages
- PC17.** utilise any computer-based applications relevant to service and repairs
- PC18.** ensure that trainings organized by the OEM from time-to-time are attended and knowledge levels are upgraded (esp. in case of newly launched products, product refreshes)

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures for servicing and minor repair of vehicles as prescribed by the OEM/ dealership
- KU2.** standard schedules and checklists recommended by the OEM/ auto component manufacturer for servicing of two and three wheeler vehicles
- KU3.** identification codes, nomenclature and grades of lubricants, components and aggregates
- KU4.** standard operating procedures recommended by the dealership/ auto components suppliers/ OEM for using tools and equipment to be followed related to aggregates/ components (including electrical and mechanical aggregates) as per the manufacturer instructions
- KU5.** standard operating procedures for rectification of errors in information (e.g. rectification of job card, reissue of correct tools and equipment etc.)
- KU6.** safety requirements for equipment and components prescribed by the OEM (e.g. preventing/ dealing with oil spillage and inflammable materials)
- KU7.** documentation requirements for each procedure carried out as part of roles and responsibilities as specified by OEM/ auto component manufacturer
- KU8.** organisational and professional code of ethics and standards of practice
- KU9.** safety, health and environmental policies and regulations for the workplace as well as for automotive trade in general (e.g. safe working practices inside pits/ under vehicles)
- KU10.** the basic technology used in and functioning of various components and aggregates of the vehicle including: engines and fuel system (diesel, petrol, electrical, gas etc.) radiator emission and exhaust system clutch assembly transmission systems (manual, automatic etc.) hydraulic and pneumatic system disc & drum brakes system drive-train assembly steering system suspension system tyres and wheel alignment cooling system electrical, ignition, electronic and air-conditioning system etc.

Qualification Pack

- KU11.** the tools used to assess deviations from specifications during routine servicing, maintenance and repair including use of: 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. specialty wrenches: alignment wrenches, chain wrenches, locking wrenches, lug wrenches etc. trim or moulding tools: carbon scrapers, gasket scrapers, scrapers, spoons etc. measuring equipment: vernier calipers, micrometre, feeler gauges, multimeter, flow metre, temp gauge, dial gauge etc. other tools: hand tools, power tools, lifting and jacking equipment, tensioning equipment, brake roller tester, chassis dynamometer, suspension activation, security activator etc. tools for other tasks such as cleaning of vehicles, tools, equipment and workshop
- KU12.** how to select the right materials for the job such as seals, sealants, fittings, gaskets, joints, fasteners etc.
- KU13.** how to carry out routine maintenance including: checking vehicle condition against OEM specifications to identify damage, corrosion, wear and tear, fluid levels, leaks and other problems in serviceability make adjustments to settings, alignment, pressures, tension, speeds and levels relevant to: - engine and aggregates (including fuel injection pump, ignition, intake and exhaust systems) - steering system - clutch and brake assembly - transmission system (including gearbox, differential, propeller shaft and axles) - electrical and electronic components (including alternator, lights, wire harness etc.) - other components (including tyres and body fittings)
- KU14.** the various sources of information available for assessing service and repair requirements of the vehicle including: diagnostic displays visual inspections test drives vehicle/equipment manufacturer specifications standard operating procedures
- KU15.** procedures recommended by the OEM and dealership to be used during routine servicing of various aggregates/ sub-assemblies (including mechanical and electrical aggregates)
- KU16.** the type and quality of components/ parts and aggregates as specified by the OEM for use as replacement in case of fault
- KU17.** the grade of lubricants, oils, coolants and grease as specified by the OEM for use
- KU18.** typical causes and symptoms of operational faults and failures of a vehicle
- KU19.** corrective action to be taken for common engine and aggregate system faults and failures
- KU20.** faults and failures that necessitate replacement of components/ aggregates (including mechanical & electrical assemblies) and other units
- KU21.** how to dispose -off replaced failed components and changed oil, lubricant, grease etc. in accordance with safety, health and environmental policies and regulations
- KU22.** precautions to be taken to ensure the following while working (including specific precautions to be taken when working with alternative fuel/ hybrid vehicles): no damage to the electrical / other advanced systems (in case of hybrid/electrical vehicles) no damage to the vehicle on which work is being done along with other vehicles parked besides no damage to vehicle components sub-assemblies and other systems no contact with hazardous materials

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** create documentation required on the job (including job cards, work sheets, etc.) regarding the basic details of repair, maintenance and service performed
- GS2.** record all diagnostic performed on the two/ three wheelers

Qualification Pack

- GS3.** write any additional requirement of work on the vehicle reported for service, maintenance or repair found during the work done as specified in the job card (for e.g. while working on the engine and transmission system, if low level of engine oil/ greasing, then convey to the superiors)
- GS4.** write in at least one language
- GS5.** read job cards and instructions from supervisors and the service advisor
- GS6.** read various sources of information available for assessing service and repair requirements of the vehicle including service manual and diagnostic and visual displays put up in the workshop
- GS7.** read policies and regulations pertinent to the job, including OEM guidelines, health and safety instructions etc
- GS8.** clearly communicate workplace information and ideas with colleagues (verbal & non-verbal)
- GS9.** use terms, names, grades and other nomenclature pertaining to the automotive trade, tools, specific workshop equipment etc.
- GS10.** communicate with colleagues to handle verbal enquiries, such as clarifying instructions and responding to requests for information
- GS11.** interact with the customer through service advisor/ supervisor in case any additional work needs to be done on the two/ three wheeler which may not have been indicated in the job card and found during the work being carried out as per the job card
- GS12.** analyse information and evaluate results to choose the best solution and solve problems
- GS13.** decide on the repair/ replacement of any aggregate (including those in the electrical and mechanical sub- assemblies) post the diagnosis (with help from a superior in case required)
- GS14.** judge when to ask for help from a superior
- GS15.** plan work according to the required schedule and location
- GS16.** organise the schedule to complete work on the vehicle timely in case other aggregate repairs/ maintenance work is also required to be done
- GS17.** interpret the needs of customers by evaluating job cards and talking to Service Advisor and superiors
- GS18.** ensure that the service provided is of the highest order to ensure higher levels of customer satisfaction
- GS19.** ensure timely communication of the additional requirements in a vehicle to the service advisor who in turn communicates it to the customer
- GS20.** follow up with the Service Advisor on any unfavourable feedback received from customer
- GS21.** recognise a workplace problem or a potential problem and take action (e.g. leaks or oil spills in the workshop)
- GS22.** determine problems needing priority action (e.g. while working on the engine, crank / pistons require machining as they have been worn out, inform the service advisor or supervisor for urgent action)
- GS23.** refer problems outside area of responsibility to appropriate person (e.g. unavailability of required spare parts or materials in the workshop)
- GS24.** gather information while working on an aggregate/ components and take appropriate action, by consulting superiors
- GS25.** assess repairs required based on technical faults identified as specified in the job card/ supervisor notes

Qualification Pack

- GS26.** refer complex problems (outside the current scope of work) to a superior in case any additional work requirement comes up
- GS27.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently
- GS28.** use the diagnosis results to take an appropriate decision on repair/ replacement of an aggregates (including mechanical and electrical subassemblies) in consultation with the supervisor/ aggregate specialist/ service advisor

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out routine service & minor repairs of aggregates of two & three wheelers</i>	30	70	-	-
PC1. . understand the auto component manufacturer specifications related to the various components/ aggregates in the two/ three wheeler vehicle	2	3	-	-
PC2. . follow standard operating procedures for using workshop tools and equipment for service and minor aggregate repairs in the two/ three wheeler vehicle	1	3	-	-
PC3. . conduct test drives to assess need for repairs, calibration or any other adjustments in the electrical/ mechanical aggregates in the two/ three wheeler vehicle	2	4	-	-
PC4. . review the job card and understand work to be carried out	2	4	-	-
PC5. .. ensure OEM recommended procedure and checklist is followed for routine servicing in case of non-routine service or repair, confirm tasks to be carried out with superior	2	4	-	-
PC6. . calibrate, align and adjust settings, alignment, pressures, tension, speeds and levels relevant to: engine and aggregates transmission system chassis electrical and electronic components Scooter (two stroke engine) Scooter (four stroke engine) Motor cycle (two stroke engine) Motor cycle (four stroke engine) Disc & drum brakes system other components (including to valves, ignition, fuel and emissions, transmission, lights, tyres, steering and body fittings)	2	4	-	-
PC7. . ensure that for routine maintenance and service, the correct spare parts and appropriate grade of lubricants, coolant, oils and grease required have been obtained	2	4	-	-
PC8. . ensure all dismantled components (including mechanical and electrical aggregates) are cleaned and conditioned prior to reassembly	2	4	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC9. . identify and change components requiring change due to continuous wear and tear including: oil and air filters belts wiper blades brake linings and pads drive	2	4	-	-
PC10. . ensure disposal of materials (including waste oil, scrap of failed parts/ aggregates) in accordance with the organisations policies	2	4	-	-
PC11. . understand the various precautions to be taken to avoid damage to the vehicle and its components while working on other aggregates	2	4	-	-
PC12.. record all service and repairs carried out and ensure completeness of tasks assigned before releasing vehicle for the next procedure	2	4	-	-
PC13.. ensure all workshop tools, equipment and workstations are adequately maintained by carrying out scheduled checks, calibration and timely repairs where necessary	2	4	-	-
PC14. . ensure any malfunctions observed in tools and equipment are reported to the concerned persons	1	4	-	-
PC15. . ensure any other repair requirements observed in the other components/ aggregates systems (like engine, gear box etc.) while repairing/ overhauling of braking systems are reported to supervisor/ service advisor for further inspection by other specialists	1	4	-	-
PC16. . able to measure/ inspect the machining or any other repair done from an outside source/ local machining garages	1	4	-	-
PC17.. utilise any computer-based applications relevant to service and repairs	1	4	-	-
PC18. . ensure that trainings organized by the OEM from time-to-time are attended and knowledge levels are upgraded (esp. in case of newly launched products, product refreshes)	1	4	-	-
NOS Total	30	70	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N1420
NOS Name	Carry out routine servicing and minor repairs of aggregates of two and three wheelers
Sector	Automotive
Sub-Sector	Automotive Vehicle Service
Occupation	Technical Service & Repair
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	10/06/2013
Next Review Date	10/06/2015
NSQC Clearance Date	20/07/2015

Qualification Pack

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N0001.Plan and organise work to meet expected outcomes	25	75	-	-	100	10
ASC/N0002.Work effectively in a team	25	75	-	-	100	15
ASC/N0003.Maintain a healthy,safe and secure working environment	25	75	-	-	100	15

Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N1420.Carry out routine servicing and minor repairs of aggregates of two and three wheelers	30	70	-	-	100	60
Total	105	295	-	-	400	100

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

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 organisation.
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.

Qualification Pack

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation 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 contributive 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.