

Qualification Pack



Auto Body Painting Technician Level 3

QP Code: ASC/Q3303

Version: 1.0

NSQF Level: 3

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

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ASC/Q3303: Auto Body Painting Technician Level 3

Brief Job Description

A paint shop assistant technician would do pretreatment , paint mixing and painting of the vehicle body part.

Personal Attributes

The person should have the following attributes Correct Vision, no color blindness, dexterity, Non Allergic to Chemicals and Paints and Thinner, ability to read, write and speak, good observation skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N0006: Maintain a safe and healthy working environment](#)
2. [ASC/N0008: Conduct regular cleaning and maintenance of the equipment](#)
3. [ASC/N0021: Maintain 5S at the work premises](#)
4. [ASC/N3305: Support the operator in surface preparation - cleaning and pre-treatment of body parts](#)
5. [ASC/N3306: Support the operator in Base and top coat application](#)
6. [ASC/N3307: Support the operator in Paint mixing activities](#)
7. [ASC/N3308: Move the finished goods from the production line and store](#)

Qualification Pack (QP) Parameters

Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Painting
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7132.0203
Minimum Educational Qualification & Experience	10th Class with 2-3 years of experience Not applicable

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Minimum Level of Education for Training in School	
Pre-Requisite License or Training	5S and Safety Various painting techniques Quality and defects
Minimum Job Entry Age	18 Years
Last Reviewed On	20/07/2013
Next Review Date	31/03/2021
Deactivation Date	31/03/2021
NSQC Approval Date	20/07/2015
Version	1.0

Qualification Pack

ASC/N0006: Maintain a safe and healthy working environment

Description

This NOS is about creating a Safe and Healthy work place, adhering to the safety guidelines in the working area, following practices which are not impacting the environment in a negative manner and training team members on health and safety related issues

Scope

The role holder will be responsible for

- identifying and reporting of risks
- creating and sustaining a safe, clean and environment friendly work place This NOS will be applicable to all Automotive sector manufacturing job roles

Elements and Performance Criteria

Identify and report the risks identified

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

- PC1..** Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise
- PC2.** Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc
- PC3.** Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations
- PC4.** Create awareness amongst other by sharing information on the identified risks

Create and sustain a Safe, clean and environment friendly work place

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

- PC5..** Follow the instructions given on the equipment manual describing the operating process of the equipments
- PC6..** Follow the Safety, Health and Environment related practices developed by the organization
- PC7.** Operate the machine using the recommended Personal Protective Equipments (PPE)
- PC8. .** Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc
- PC9.** Maintain high standards of personal hygiene at the work place
- PC10.** Ensure that the waste disposal is done in the designated area and manner as per organization SOP.
- PC11.** Inform appropriately the medical officer/ HR in case of self or an employees illness of contagious nature so that preventive actions can be planned for others

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** relevant standards, procedures and policies related to Health, Safety and Environment followed in the company
- KU2.** basic knowledge of Safety procedures(fire fighting, first aid) within the organization
- KU3.** knowledge of various types of PPEs and their usage
- KU4.** basic knowledge of risks/hazards associated with each occupation in the organization
- KU5.** how to safely operate various tools and machines and risks associated with the tools/ equipment
- KU6.** knowledge of personal hygiene and how an individual can contribute towards creating a highly safe and clean working environment

Generic Skills (GS)

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

- GS1.** write basic level notes and observations
- GS2.** read safety instructions put up across the plant premises
- GS3.** read safety precautions mentioned in equipment manuals and panels to understand the potential risks associated
- GS4.** effectively communicate information to team members
- GS5.** inform employees in the plant and concerned functions about events, incidents & potential risks observed related to Safety, Health and Environment.
- GS6.** question operator/ supervisor in order to understand the safety related issues
- GS7.** attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
- GS8.** use common sense and make judgments during day to day basis
- GS9.** use reasoning skills to identify and resolve basic problems
- GS10.** use common sense and make judgments during day to day basis
- GS11.** use reasoning skills to identify and resolve basic problems

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify and report the risks identified</i>	8	23	-	-
PC1.. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals ,loud noise	3	6	-	-
PC2. Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc	2	6	-	-
PC3. Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations	2	6	-	-
PC4. Create awareness amongst other by sharing information on the identified risks	1	5	-	-
<i>Create and sustain a Safe, clean and environment friendly work place</i>	17	52	-	-
PC5.. Follow the instructions given on the equipment manual describing the operating process of the equipments	3	7	-	-
PC6.. Follow the Safety, Health and Environment related practices developed by the organization	3	8	-	-
PC7. Operate the machine using the recommended Personal Protective Equipments (PPE)	3	8	-	-
PC8. . Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc	2	8	-	-
PC9. Maintain high standards of personal hygiene at the work place	2	7	-	-
PC10. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.	3	8	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. Inform appropriately the medical officer/ HR in case of self or an employees illness of contagious nature so that preventive actions can be planned for others	1	6	-	-
NOS Total	25	75	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0006
NOS Name	Maintain a safe and healthy working environment
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Maintenance
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	15/09/2013
Next Review Date	15/09/2015
NSQC Clearance Date	20/07/2015

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ASC/N0008: Conduct regular cleaning and maintenance of the equipment

Description

This NOS is about systematically arranging the equipment in proper area, cleaning the process equipment & auxiliaries on a regular basis and doing basic level maintenance of the equipment, recording any problems related to equipment working

Scope

The role holder will be responsible for

- Storing the equipment in the proper condition
- Regular cleaning and maintenance of equipment and work area

Elements and Performance Criteria

Storing equipment in proper condition

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

- PC1..** arrange all equipment in a proper order as indicated in the equipment manual
- PC2. .** store equipment auxiliaries and spare parts in proper designated areas
- PC3..** clearly tag process related equipment parts/ spare parts as per part number or serial number so that sorting of equipment becomes easy
- PC4.** cover equipment so that there is limited dust collection and moisture contact

Regular cleaning of the equipments and work area

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

- PC5.** regularly clean the equipment and process auxiliaries to remove any dust, moisture, waste material which would have got collected on the equipment
- PC6.** regularly open the equipment and clean the internal parts of the equipment
- PC7.** regularly clean the working area under the process and create a healthy, clean and safe working environment

Conduct regular preventive maintenance of equipments

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

- PC8..** check the working of all bearing, rollers, shafts etc and oil all moving parts of the equipment on a periodic basis
- PC9..** check the working of non moving parts and periodically conduct preventive maintenance to prevent machine failure
- PC10.** periodically check the equipment calibration and report any errors to the maintenance teams for rectification

Recording observations and preparing MIS

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

- PC11.** prepare periodic log sheets of equipment maintenance dates, maintenance schedules and maintenance activity conducted on the equipment

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Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company for the process of maintenance and equipment storage
- KU2.** functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution
- KU3.** basic level maintenance and cleaning techniques
- KU4.** various solvents, chemicals, lubricants etc. used during the maintenance processes
- KU5.** procedure for arranging the equipment and spare parts in the prescribed manner including tagging and numbering of machine parts & spares
- KU6.** safety precautions to be taken during cleaning and maintenance activities

Generic Skills (GS)

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

- GS1.** note equipment part codes, name tags etc. in the prescribed formats and records for the same
- GS2.** note observations related to equipment performance, breakdown, cleaning and maintenance schedules etc. in the prescribed MIS format
- GS3.** read equipment manuals and process documents to understand the equipment and processes better
- GS4.** read instructions especially safety instructions related to equipment cleaning and maintenance
- GS5.** discuss task lists and job requirements with co-workers
- GS6.** effectively communicate information to team members
- GS7.** listen and analyse any noise and vibrations in the equipment and report the same to the maintenance team for preventive action
- GS8.** attentively listen with full attention and comprehend the information given by the speaker
- GS9.** plan and organize the work order and jobs received from the Operator
- GS10.** organize all process/ equipment manuals so that sorting/ accessing information is easy as per the part/ machine number in the specified format in the designated area
- GS11.** use common sense and make judgments during day to day basis
- GS12.** use reasoning skills to identify and resolve basic problems

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Storing equipment in proper condition</i>	7	30	-	-
PC1.. arrange all equipment in a proper order as indicated in the equipment manual	2	8	-	-
PC2. . store equipment auxiliaries and spare parts in proper designated areas	2	8	-	-
PC3.. clearly tag process related equipment parts/ spare parts as per part number or serial number so that sorting of equipment becomes easy	2	7	-	-
PC4. cover equipment so that there is limited dust collection and moisture contact	1	7	-	-
<i>Regular cleaning of the equipments and work area</i>	6	22	-	-
PC5. regularly clean the equipment and process auxiliaries to remove any dust, moisture, waste material which would have got collected on the equipment	2	8	-	-
PC6. regularly open the equipment and clean the internal parts of the equipment	2	7	-	-
PC7. regularly clean the working area under the process and create a healthy, clean and safe working environment	2	7	-	-
<i>Conduct regular preventive maintenance of equipments</i>	6	21	-	-
PC8.. check the working of all bearing, rollers, shafts etc and oil all moving parts of the equipment on a periodic basis	2	7	-	-
PC9.. check the working of non moving parts and periodically conduct preventive maintenance to prevent machine failure	2	7	-	-
PC10. periodically check the equipment calibration and report any errors to the maintenance teams for rectification	2	7	-	-
<i>Recording observations and preparing MIS</i>	1	7	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. prepare periodic log sheets of equipment maintenance dates, maintenance schedules and maintenance activity conducted on the equipment	1	7	-	-
NOS Total	20	80	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0008
NOS Name	Conduct regular cleaning and maintenance of the equipment
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Welding
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	18/10/2016
Next Review Date	20/10/2018
NSQC Clearance Date	

Qualification Pack

ASC/N0021: Maintain 5S at the work premises

Description

This NOS is about ensuring all 5 S activities both at the shop floor and the office area to facilitate increase in work productivity

Scope

The individual needs to. Ensure sorting, streamlining & organizing, storage and documentation, cleaning, standardization and sustenance across the plant and office premises of the organization

Elements and Performance Criteria

Ensure sorting

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

- PC1..** follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces.
- PC2..** ensure segregation of waste in hazardous/ non hazardous waste as per the sorting work instructions
- PC3..** follow the technique of waste disposal and waste storage in the proper bins as per sop
- PC4..** segregate the items which are labelled as red tag items for the process area and keep them in the correct places
- PC5.** sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions
- PC6. .** ensure that areas of material storage areas are not overflowing
- PC7.** properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required
- PC8.** return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area
- PC9.** follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards
- PC10.** follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists

Ensure proper documentation and storage (organizing , streamlining)

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

- PC11.** check that the items in the respective areas have been identified as broken or damaged
- PC12.** follow the given instructions and check for labelling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc
- PC13.** make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions

Ensure cleaning of self and the work place

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

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- PC14.** check whether safety glasses are clean and in good condition
- PC15.** keep all outside surfaces of recycling containers are clean
- PC16..** ensure that the area has floors swept, machinery clean and generally clean. in case of cleaning, ensure that proper displays are maintained on the floor which indicate potential safety hazards
- PC17..** check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up
- PC18..** ensure workbenches and work surfaces are clean and in good condition
- PC19.** follow the cleaning schedule for the lighting system to ensure proper illumination
- PC20.** store the cleaning material and equipment in the correct location and in good condition
- PC21.** ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene

Ensure sustenance

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

- PC22.** follow the daily cleaning standards and schedules to create a clean working environment
- PC23.** attend all training programs for employees on 5 s
- PC24.** support the team during the audit of 5 s
- PC25.** participate actively in employee work groups on 5s and encourage team members for active participation
- PC26.** follow the guidelines for what to do and what not to do to build sustainability in 5s as mentioned in the 5s check lists/ work instructions

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards, procedures and policies related to 5S followed in the company
- KU2.** have basic knowledge of 5S procedures
- KU3.** know various types 5s practices followed in various areas
- KU4.** understand the 5S checklists provided in the department/ team
- KU5.** have skills to identify useful & non useful items
- KU6.** have knowledge of labels , signs & colours used as indicators
- KU7.** knowledge on how to sort and store various types of tools, equipment, material etc.
- KU8.** know , how to identify various types of waste products
- KU9.** understand the impact of waste/ dirt/ dust/unwanted substances on the process/ environment/ machinery/ human body
- KU10.** have knowledge of best ways of cleaning & waste disposal
- KU11.** understand the importance of standardization in processes
- KU12.** understand the importance of sustainability in 5S
- KU13.** have knowledge of TQM process
- KU14.** have knowledge of various materials and storage norms
- KU15.** understand visual controls, symbols, graphs etc.

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Generic Skills (GS)

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

- GS1.** write basic level notes and observations
- GS2.** note down observations (if any) related to the process
- GS3.** read 5S instructions put up across the plant premises
- GS4.** effectively communicate information to team members inform employees in the plant and concerned functions about 5S
- GS5.** question the process head in order to understand the 5S related issues
- GS6.** attentively listen with full attention and comprehend the information given by the speaker during 5S training programs
- GS7.** use common sense and make judgments during day to day basis
- GS8.** use reasoning skills to identify and resolve basic problems using 5S
- GS9.** persuade co team members to follow 5 S
- GS10.** ensure that the co team members understand the importance of using 5 S tool
- GS11.** use innovative skills to perform and manage 5 S activities at the work desk and the shop floor
- GS12.** exhibit inquisitive behaviour to seek feedback and question on the existing set patterns of work
- GS13.** do what is right, not what is a popular practices
- GS14.** follow shop floor rules& regulations and avoid deviations; make 5S an integral way of life
- GS15.** ensure self-cleanliness on a daily basis
- GS16.** demonstrate the will to keep the work area in a clean and orderly manner

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure sorting</i>	10	30	-	-
PC1.. follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces.	1	3	-	-
PC2.. ensure segregation of waste in hazardous/ non hazardous waste as per the sorting work instructions	1	3	-	-
PC3.. follow the technique of waste disposal and waste storage in the proper bins as per sop	1	3	-	-
PC4.. segregate the items which are labelled as red tag items for the process area and keep them in the correct places	1	3	-	-
PC5. sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions	1	3	-	-
PC6. . ensure that areas of material storage areas are not overflowing	1	3	-	-
PC7. properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required	1	3	-	-
PC8. return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area	1	3	-	-
PC9. follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards	1	3	-	-
PC10. follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists	1	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure proper documentation and storage (organizing , streamlining)</i>	3	9	-	-
PC11. check that the items in the respective areas have been identified as broken or damaged	1	3	-	-
PC12. follow the given instructions and check for labelling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc	1	3	-	-
PC13. make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions	1	3	-	-
<i>Ensure cleaning of self and the work place</i>	8	24	-	-
PC14. check whether safety glasses are clean and in good condition	1	3	-	-
PC15. keep all outside surfaces of recycling containers are clean	1	3	-	-
PC16.. ensure that the area has floors swept, machinery clean and generally clean. in case of cleaning, ensure that proper displays are maintained on the floor which indicate potential safety hazards	1	3	-	-
PC17.. check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up	1	3	-	-
PC18.. ensure workbenches and work surfaces are clean and in good condition	1	3	-	-
PC19. follow the cleaning schedule for the lighting system to ensure proper illumination	1	3	-	-
PC20. store the cleaning material and equipment in the correct location and in good condition	1	3	-	-
PC21. ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene	1	3	-	-
<i>Ensure sustenance</i>	4	12	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. follow the daily cleaning standards and schedules to create a clean working environment	1	3	-	-
PC23. attend all training programs for employees on 5 s	0.5	2	-	-
PC24. support the team during the audit of 5 s	1	3	-	-
PC25. participate actively in employee work groups on 5s and encourage team members for active participation	0.5	2	-	-
PC26. follow the guidelines for what to do and what not to do to build sustainability in 5s as mentioned in the 5s check lists/ work instructions	1	2	-	-
NOS Total	25	75	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0021
NOS Name	Maintain 5S at the work premises
Sector	Automotive
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	15/03/2014
Next Review Date	15/03/2016
NSQC Clearance Date	

Qualification Pack

ASC/N3305: Support the operator in surface preparation - cleaning and pre-treatment of body parts

Description

This NOS is about Cleaning and Pretreatment of body part

Scope

The role holder will be responsible for

- Ensuring completion of the prewash process and hot water spray process
- Completion of pre degreasing and greasing process
- Various subprocesses of the painting and surface treatment process like rinsing, surface conditioning, phosphate dipping etc.

Elements and Performance Criteria

Ensure the Prewash process

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

- PC1..** clearly understanding the does and donts of the manufacturing process as defined in sops/ work instructions or defined by supervisors
- PC2. .** carry out general check:-feed valve, drain valve must be in closed condition.
- PC3..** carry out bath pointagemaintenance as per bath replenishment chart.
- PC4. .** ensurecorrect bath make up frequency as per standard process
- PC5. .** check for oil separator, it must be in working condition

Ensure completion of Hot water spray process

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

- PC6. .** check:-feed valve, drain valve must be in closed condition.
- PC7. .** check bath pointagemaintenance as per bath replenishment chart.
- PC8..** ensure bath make up frequency
- PC9. .** ensure pressure difference across bag filter and then clean the bag filter

Ensure completion of Pre degreasing process

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

- PC10..** check:-feed valve, drain valve must be in closed condition.
- PC11..** maintain bath pointage as per bath replenishment chart.
- PC12..** check for oil separator, it must be in working condition

Ensure completion of Degrease dip process

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

- PC13..** check:-feed valve, drain valve must be in closed condition.
- PC14..** maintain bath pointage as per bath replenishment chart.
- PC15. .** ensurebath make upverification as per the frequency

Ensure Water rinse I spray process, Ensure Water rinse II dip process

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

PC16.. check:-feed valve, drain valve must be in closed condition.

PC17.. maintain bath pointage as per bath replenishment chart.

PC18. . ensurebath make up verification as per the frequency

Ensure completion of Surface Conditioning process

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

PC19.. check:-feed valve, drain valve must be in closed condition.

PC20.. maintain bath pointage as per bath replenishment chart.

PC21.. ensurebath make up verification as per the frequency

Ensure completion of Phosphate dip process

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

PC22.. check:-feed valve, drain valve must be in closed condition.

PC23.. maintain bath pointage as per bath replenishment chart.

PC24. . ensurebath make up verification as per the frequency

PC25.. check of heat exchanger temperature must be in the range

Ensure Water rinse III spray process & Ensure Water rinse IV dip process

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

PC26.. check:-feed valve, drain valve must be in closed condition.

PC27. . ensure bath make up frequency

Ensure completion of RCDM dip process

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

PC28.. check:-feed valve, drain valve must be in closed condition.

PC29.. maintain bath pointage as per bath replenishment chart.

PC30.. ensurebath make up verification as per the frequency

Ensure completion of ED Bath process

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

PC31.. check:-feed valve, drain valve must be in closed condition.

PC32.. maintain bath pointage as per bath replenishment chart.

PC33.. ensurebath make up verification as per the frequency

Ensure completion of Ultra Filtrate 1 , 2 and 3 processes and RCDM dip process

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

PC34.. check:-feed valve, drain valve must be in closed condition.

PC35.. maintain bath pointage as per bath replenishment chart.

PC36. . ensurebath make up verification as per the frequency

Ensure Fresh DI spray process

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

PC37. . the conductivity test from dm supply line

Ensure proper Unloading of body parts

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

PC38.. proper cutting of wires and unloading of bodies on skids

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Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** different types of products manufactured by the company
- KU3.** functional processes like store management, inventory management, quality management and key contact points for query resolution
- KU4.** various chemicals to be added in a certain proportion and frequency
- KU5.** different types of defects which may arise due to improper parameters maintained at each tank level
- KU6.** levels of water and other chemicals in the various tanks
- KU7.** how to operate both in automatic and manual mode
- KU8.** visualization of the final product output and hence decide on the key steps to be followed

Generic Skills (GS)

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

- GS1.** document information
- GS2.** write basic level notes and observations
- GS3.** draw basic level drawings and charts
- GS4.** read equipment manuals and process documents to understand the equipments and processes better
- GS5.** read internal information memos send by internal customers (other functions within the organization)
- GS6.** discuss task lists, schedules, and work-loads with co-workers
- GS7.** question internal customers/ paint shop supervisor in order to understand the nature of the problem and make a diagnosis
- GS8.** attentively listen with full attention and comprehend the information given by the speaker
- GS9.** plan and organize the work order and jobs received from the internal customers
- GS10.** plan and organize the design documents received from internal customers
- GS11.** organize all process/ equipment manuals so that sorting out information is fast
- GS12.** carefully analyze the body part for various surface defects at every tank level
- GS13.** carefully analyze the various test parameters to be maintained at each and every tank level
- GS14.** carefully run the production line if some delay happens
- GS15.** knowledge of how to operate machines automatically and manually

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure the Prewash process</i>	3.5	11.25	-	-
PC1.. clearly understanding the does and donts of the manufacturing process as defined in sops/ work instructions or defined by supervisors	1	2.25	-	-
PC2. . carry out general check:-feed valve, drain valve must be in closed condition.	1	2.25	-	-
PC3.. carry out bath pointagemaintenance as per bath replenishment chart.	0.5	2.25	-	-
PC4. . ensurecorrect bath make up frequency as per standard process	0.5	2.25	-	-
PC5. . check for oil separator, it must be in working condition	0.5	2.25	-	-
<i>Ensure completion of Hot water spray process</i>	2	9	-	-
PC6. . check:-feed valve, drain valve must be in closed condition.	0.5	2.25	-	-
PC7. . check bath pointagemaintenance as per bath replenishment chart.	0.5	2.25	-	-
PC8.. ensure bath make up frequency	0.5	2.25	-	-
PC9. . ensure pressure difference across bag filter and then clean the bag filter	0.5	2.25	-	-
<i>Ensure completion of Pre degreasing process</i>	1.5	6.5	-	-
PC10.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-
PC11.. maintain bath pointage as per bath replenishment chart.	0.5	2.25	-	-
PC12.. check for oil separator, it must be in working condition	0.5	2.25	-	-
<i>Ensure completion of Degrease dip process</i>	1.5	6	-	-
PC13.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14.. maintain bath pointage as per bath replenishment chart.	0.5	2	-	-
PC15. . ensurebath make upverification as per the frequency	0.5	2	-	-
<i>Ensure Water rinse I spray process, Ensure Water rinse II dip process</i>	1.5	6.5	-	-
PC16.. check:-feed valve, drain valve must be in closed condition.	0.5	2.25	-	-
PC17.. maintain bath pointage as per bath replenishment chart.	0.5	2	-	-
PC18. . ensurebath make up verification as per the frequency	0.5	2.25	-	-
<i>Ensure completion of Surface Conditioning process</i>	1.5	6.25	-	-
PC19.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-
PC20.. maintain bath pointage as per bath replenishment chart.	0.5	2	-	-
PC21.. ensurebath make up verification as per the frequency	0.5	2.25	-	-
<i>Ensure completion of Phosphate dip process</i>	2	8.5	-	-
PC22.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-
PC23.. maintain bath pointage as per bath replenishment chart.	0.5	2	-	-
PC24. . ensurebath make up verification as per the frequency	0.5	2.25	-	-
PC25.. check of heat exchanger temperature must be in the range	0.5	2.25	-	-
<i>Ensure Water rinse III spray process & Ensure Water rinse IV dip process</i>	1	4	-	-
PC26.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. . ensure bath make up frequency	0.5	2	-	-
<i>Ensure completion of RCDM dip process</i>	1.5	6	-	-
PC28.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-
PC29.. maintain bath pointage as per bath replenishment chart.	0.5	2	-	-
PC30.. ensurebath make up verification as per the frequency	0.5	2	-	-
<i>Ensure completion of ED Bath process</i>	1.5	6	-	-
PC31.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-
PC32.. maintain bath pointage as per bath replenishment chart.	0.5	2	-	-
PC33.. ensurebath make up verification as per the frequency	0.5	2	-	-
<i>Ensure completion of Ultra Filtrate 1 , 2 and 3 processes and RCDM dip process</i>	1.5	6	-	-
PC34.. check:-feed valve, drain valve must be in closed condition.	0.5	2	-	-
PC35.. maintain bath pointage as per bath replenishment chart.	0.5	2	-	-
PC36. . ensurebath make up verification as per the frequency	0.5	2	-	-
<i>Ensure Fresh DI spray process</i>	0.5	2	-	-
PC37. . the conductivity test from dm supply line	0.5	2	-	-
<i>Ensure proper Unloading of body parts</i>	0.5	2	-	-
PC38.. proper cutting of wires and unloading of bodies on skids	0.5	2	-	-
NOS Total	20	80	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N3305
NOS Name	Support the operator in surface preparation - cleaning and pre-treatment of body parts
Sector	Automotive
Sub-Sector	Manufacturing and R&D
Occupation	Painting
NSQF Level	3
Credits	NA
Version	1.0
Last Reviewed Date	20/07/2013
Next Review Date	30/07/2015
NSQC Clearance Date	20/07/2013

Qualification Pack

ASC/N3306: Support the operator in Base and top coat application

Description

This NOS is about Body Base coat (Top Coat) Painting

Scope

The role holder will be responsible for

- Cleaning the body pre painting for removing the dust particles
- Prepare the paint as per the specifications
- Apply the paint using the spray gun

Elements and Performance Criteria

Clean the body pre painting for the dust particles

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

PC1. that the body should be free from all dust particles

Prepare paint with the help of Paint and thinner at a specified viscosity. Set the paint pattern as per defined requirement.

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

PC2. the right quantity paint to be used. Do not over spray paint to undesired areas of the body

Apply paint with spray gun

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

PC3. paint coverage must be uniform, no patches must be there.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** different types of products manufactured by the company
- KU3.** knowledge of functional processes like store management, inventory management, quality management and key contact points for query resolution
- KU4.** different types of defects which may arise due to improper booth parameters
- KU5.** how to operate both in automatic and manual mode
- KU6.** visualizing the final product output and hence decide on the key steps to be followed
- KU7.** various paints and thinners to be mixed in a specified proportion and frequency in paint tanks
- KU8.** how to operate the robotic machine
- KU9.** spray painting for the manual painting process

Generic Skills (GS)

Qualification Pack

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

- GS1.** document information
- GS2.** write basic level notes and observations
- GS3.** read equipment manuals and process documents to understand the equipments and processes better
- GS4.** read internal information documents send by internal customers (other functions within the organization)
- GS5.** discuss task lists, schedules, and work-loads with co-workers
- GS6.** question internal customers/ paint shop supervisor in order to understand the nature of the problem and make a diagnosis
- GS7.** plan and organize the work order and jobs received from the internal customers
- GS8.** plan and organize the design documents received from internal customers
- GS9.** organize all process/ equipment manuals so that sorting out information is fast
- GS10.** carefully analyze the body part for various painting defects as per the specifications
- GS11.** carefully run the production line if some delay happens

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Clean the body pre painting for the dust particles</i>	6	20	-	-
PC1. . that the body should be free from all dust particles	6	20	-	-
<i>Prepare paint with the help of Paint and thinner at a specified viscosity. Set the paint pattern as per defined requirement.</i>	7	30	-	-
PC2. . the right quantity paint to be used. Do not over spray paint to undesired areas of the body	7	30	-	-
<i>Apply paint with spray gun</i>	7	30	-	-
PC3. . paint coverage must be uniform, no patches must be there.	7	30	-	-
NOS Total	20	80	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N3306
NOS Name	Support the operator in Base and top coat application
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Painting
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	20/07/2013
Next Review Date	30/07/2015
NSQC Clearance Date	20/07/2013

Qualification Pack

ASC/N3307: Support the operator in Paint mixing activities

Description

This NOS is about various activities in the Paint Mix Room

Scope

The role holder will be responsible for

- Noting down the physical stock of the paint, thinner and other solutions
- Transfer the painting into the required tanks and maintaining viscosity of the paint
- Transfer the paint into different tanks

Elements and Performance Criteria

Note down the physical stock of paint, thinner and Keep the container in storage area

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

- PC1.** . conduct the process of checking expiry date and batch no. as per the work instructions/ sops
- PC2.** . ensure that there should be no skinning, sedimentation or paint separation in the paint container

Transfer the paint to the paint charging tank

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

- PC3.** . conduct the process of maintaining paint mix room temperature and no use of an electrical equipment inside paint mix room
- PC4.** . ensure that during suction there should be no spillage of paint and thinner on floor.

Maintain the viscosity of paint in paint charging tank

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

- PC5.** . conduct regular check of paint viscosity till the desired viscosity obtained
- PC6.** . ensure checking of earthing of equipment

Transfer the paint to the supply tank to supply to the top coat

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

- PC7.** . conduct the viscosity adjustment: once the viscosity adjusted as per end customer requirement / control plan
- PC8.** . check the final viscosity and keep it on record
- PC9.** . ensure that earthing of equipment is properly done as per the instructions

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** different types of products manufactured by the company

Qualification Pack

- KU3.** functional processes like store management, inventory management, quality management and key contact points for query resolution
- KU4.** refer to ppe matrix for ppe usage at station
- KU5.** operate both in automatic and manual mode
- KU6.** sense the electrical hazards in the paint shop and the process of using fire extinguisher
- KU7.** mix various paints and thinners in a specified proportion and frequency in paint tanks
- KU8.** fill the paint tanks safely with different paints
- KU9.** conduct the process for maintaining the inventory of paint
- KU10.** observe various safety parameters
- KU11.** document information
- KU12.** write basic level notes and observations
- KU13.** read equipment manuals and process documents to understand the equipments and processes better
- KU14.** read internal information documents sent by internal customers (other function within the organization)
- KU15.** discuss task lists, schedules, and work-loads with co-workers
- KU16.** question internal customers/ paint shop supervisor in order to understand the nature of the problem and make a diagnosis

Generic Skills (GS)

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

- GS1.** plan and organize the work order and jobs received from the internal customers
- GS2.** plan and organize the design documents received from internal customers
- GS3.** organize all process/ equipment manuals so that sorting out information is without much delays.

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Note down the physical stock of paint, thinner and Keep the container in storage area</i>	4	14	-	-
PC1. . conduct the process of checking expiry date and batch no. as per the work instructions/ sops	2	7	-	-
PC2. . ensure that there should be no skinning, sedimentation or paint separation in the paint container	2	7	-	-
<i>Transfer the paint to the paint charging tank</i>	5	21	-	-
PC3. . conduct the process of maintaining paint mix room temperature and no use of an electrical equipment inside paint mix room	3	12	-	-
PC4. . ensure that during suction there should be no spillage of paint and thinner on floor.	2	9	-	-
<i>Maintain the viscosity of paint in paint charging tank</i>	4	18	-	-
PC5. . conduct regular check of paint viscosity till the desired viscosity obtained	3	10	-	-
PC6. . ensure checking of earthing of equipment	1	8	-	-
<i>Transfer the paint to the supply tank to supply to the top coat</i>	7	27	-	-
PC7. . conduct the viscosity adjustment: once the viscosity adjusted as per end customer requirement / control plan	3	9	-	-
PC8. . check the final viscosity and keep it on record	2	8	-	-
PC9. . ensure that earthing of equipment is properly done as per the instructions	2	10	-	-
NOS Total	20	80	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N3307
NOS Name	Support the operator in Paint mixing activities
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Painting
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	20/07/2013
Next Review Date	30/07/2015
NSQC Clearance Date	20/07/2013

Qualification Pack

ASC/N3308: Move the finished goods from the production line and store

Description

This NOS is about unloading the finished goods from the production line and store them properly in the designated area/ move the finished goods on subsequent platform on the assembly line

Scope

The role holder will be responsible for

- Unloading the finished goods and storing them at the right places

Elements and Performance Criteria

Unload the Finished Goods

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

- PC1.** . understand the output product shape and decide the mechanism to lift the output
- PC2.** . clamp the product and lift the output object using suitable equipment like hoist, lifts, crane etc
- PC3.** . ensure that there is no damage to the lifted work pieces
- PC4.** . carry the output product to the designated area using hangars, conveyor belts, cranes, forklifts etc

Store the finished goods

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

- PC5.** . post inspection process, tag the right quality pieces for future identification
- PC6.** . carry the tagged pieces to the storage areas using manual/ automatic means
- PC7..** keep a record of the finished goods along with the storage identification numbers for easy sorting

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution
- KU3.** basic level operations of lifting equipment like hoists, cranes, pulleyetc
- KU4.** methods of storage and tagging of final product

Generic Skills (GS)

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

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- GS1.** note equipment part codes, name tags etc in the prescribed formats and records for the same
- GS2.** note observations related to movement and storage of final product
- GS3.** read equipment manuals and process documents to understand the equipments and processes better
- GS4.** read instructions especially safety instructions related to movement of goods
- GS5.** discuss task lists and job requirements with co-workers
- GS6.** effectively communicate information to team members
- GS7.** listen and analyze any noise and vibrations in the equipment and report the same to the maintenance team for preventive action
- GS8.** attentively listen with full attention and comprehend the information given by the speaker
- GS9.** plan and organize the work order and jobs received from the operator
- GS10.** organize all process/ equipment manuals so that sorting/ accessing information is easy as per the part/ machine number in the specified format in the designated area
- GS11.** use common sense and make judgments during day to day basis
- GS12.** use reasoning skills to identify and resolve basic problems

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Unload the Finished Goods</i>	12	47	-	-
PC1. . understand the output product shape and decide the mechanism to lift the output	3	11	-	-
PC2. . clamp the product and lift the output object using suitable equipment like hoist, lifts, crane etc	3	12	-	-
PC3. . ensure that there is no damage to the lifted work pieces	3	12	-	-
PC4. . carry the output product to the designated area using hangars, conveyor belts, cranes, forklifts etc	3	12	-	-
<i>Store the finished goods</i>	8	33	-	-
PC5. . post inspection process, tag the right quality pieces for future identification	3	11	-	-
PC6. . carry the tagged pieces to the storage areas using manual/ automatic means	3	12	-	-
PC7.. keep a record of the finished goods along with the storage identification numbers for easy sorting	2	10	-	-
NOS Total	20	80	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N3308
NOS Name	Move the finished goods from the production line and store
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Painting
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	20/07/2013
Next Review Date	30/07/2015
NSQC Clearance Date	20/07/2013

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 : 65

(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/N0006.Maintain a safe and healthy working environment	25	75	-	-	100	15
ASC/N0008.Conduct regular cleaning and maintenance of the equipment	20	80	-	-	100	10
ASC/N0021.Maintain 5S at the work premises	25	75	-	-	100	10

Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N3305.Support the operator in surface preparation - cleaning and pre-treatment of body parts	20	80	-	-	100	20
ASC/N3306.Support the operator in Base and top coat application	20	80	-	-	100	15
ASC/N3307.Support the operator in Paint mixing activities	20	80	-	-	100	20
ASC/N3308.Move the finished goods from the production line and store	20	80	-	-	100	10
Total	150	550	-	-	700	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.

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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.