

Process Tryout Engineer Level 4

QP Code: ASC/Q6406

NSQF Level: 4

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Qualification Pack

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ASC/Q6406: Process Tryout Engineer Level 4

Brief Job Description

Individuals at this job need to conduct process trials for achieving QCD of the production process.

Personal Attributes

This job requires the individual to work independently and be comfortable in making decisions pertaining to his/her area of work. The individual should be result oriented. The individual should also be able to demonstrate skills for information ordering, oral expression, analytical approach and comprehension.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N0006: Maintain a safe and healthy working environment](#)
2. [ASC/N0021: Maintain 5S at the work premises](#)
3. [ASC/N6418: Co-ordinate the receipt & inspection of equipment](#)
4. [ASC/N6419: Integrate the system and conduct trials](#)
5. [ASC/N6420: Follow the process handover protocol](#)

Qualification Pack (QP) Parameters

Sector	Automotive
Sub-Sector	Manufacturing Support
Occupation	Process Engineering
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/2144.0102

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Minimum Educational Qualification & Experience	<p>Certificate (ASDC Manufacturing Process/Tool Design L3) with 5-10 Years of experience In experience B Tech</p> <p>OR</p> <p>Certificate (ASDC Manufacturing Process/Tool Design L3) with 3-5 Years of experience Not applicable</p> <p>OR</p> <p>Certificate (ASDC Manufacturing Process/Tool Design L3)</p>
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Basic statistics fundamentals training courses
Minimum Job Entry Age	18 Years
Last Reviewed On	23/09/2013
Next Review Date	31/03/2020
NSQC Approval Date	05/08/2015
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

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

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:

- 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

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- 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.

Generic Skills (GS)

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

- GS1.** write basic level notes and observations

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- 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	

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ASC/N6418: Co-ordinate the receipt & inspection of equipment

Description

This OS unit is about the process tryout engineer applying his process knowledge to co-ordinate the receipt and inspection of the main/ auxiliary equipment /parts

Scope

The unit/ task covers the following:

- Co-ordinate the Receipt and Inspection of the main & auxiliary equipment, parts Integrate the system parts & Conduct the trials
- Submission of Try-out findings ; inputs for CP / WI documentation

Elements and Performance Criteria

Co-ordinate equipment Receipt & Inspection

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

- PC1..** study the equipment & parts on order to decide the techniques and tools to plan the process of Inspection for broad classification of process types such as assembly Process machining Process basic metal forming Casting, Forging, Sheet metal etc special processes- Polymers, welding, Surface/ Heat treatment
- PC2..** organize the inspection activity with the support of tool room/ standards room or seniors
- PC3..** decide on acceptance of the equipment/parts in consultation with Process design/ validation Engineer after Inspection for workstation mechanism & fixtures material feeding & handling automation

Integrate the assembly

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

- PC4..** based on pc1, pc2 integrate the system parts into a working assembly

Establishment of auxiliary equipment & controls

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

- PC5..** verify the working operation for all equipment : main & auxiliary assembly as per the released drawings for the process achievement of rating, load capacity ,range of process parameters etc of automation, poka yoke for operation & or parameter check cost and cycle time

Tryout report / Inputs for documentation

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

- PC6..** conduct trials taking care of doe & process parameters validation documenting the results.
- PC7..** finalize the validation report with specific observations for cp / wi for pilot batch / production levels.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** company manufacturing processes
- KU2.** sequence of operations
- KU3.** inspection Activity Flow
- KU4.** equipments available in local/ global market ; technological upgrades
- KU5.** all the economic factors involved in the activity
- KU6.** previous similar design & achieved data for QCT
- KU7.** elements of Control systems : Pneumatic, Hydraulic, Electrical/ electronic
- KU8.** elements of Automation/ Robotics as applicable
- KU9.** linking the PFMEA CP & Process Validation

Generic Skills (GS)

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

- GS1.** read the equipment literature & understand its features.
- GS2.** compile all the data related to main & auxillary equipment required in the processes
- GS3.** communicate with NPD-CFT for design features
- GS4.** assist CFT members in doing their job as per the standards
- GS5.** share operation knowledge with co-workers
- GS6.** plan the execution of entire tryout activity ; long term and short term activities so that he can finish the task activity wise in the stipulated time
- GS7.** Steps & parameters in DOE/ Validation
- GS8.** analyze the way in which job is being performed and think of some other suitable method in order to optimize the QCT while performing the work
- GS9.** co-ordinate and link practical aspects of own work as inputs for the Design & documentation activity

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Co-ordinate equipment Receipt & Inspection</i>	14	30	-	-
PC1.. study the equipment & parts on order to decide the techniques and tools to plan the process of Inspection for broad classification of process types such as assembly Process machining Process basic metal forming Casting, Forging, Sheet metal etc special processes- Polymers, welding, Surface/ Heat treatment	5	10	-	-
PC2.. organize the inspection activity with the support of tool room/ standards room or seniors	4	10	-	-
PC3.. decide on acceptance of the equipment/parts in consultation with Process design/ validation Engineer after Inspection for workstation mechanism & fixtures material feeding & handling automation	5	10	-	-
<i>Integrate the assembly</i>	4	10	-	-
PC4.. based on pc1, pc2 integrate the system parts into a working assembly	4	10	-	-
<i>Establishment of auxiliary equipment & controls</i>	4	10	-	-
PC5.. verify the working operation for all equipment : main & auxiliary assembly as per the released drawings for the process achievement of rating, load capacity ,range of process parameters etc of automation, poka yoke for operation & or parameter check cost and cycle time	4	10	-	-
<i>Tryout report / Inputs for documentation</i>	8	20	-	-
PC6.. conduct trials taking care of doe & process parameters validation documenting the results.	4	10	-	-
PC7.. finalize the validation report with specific observations for cp / wi for pilot batch / production levels.	4	10	-	-
NOS Total	30	70	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	ASC/N6418
NOS Name	Co-ordinate the receipt & inspection of equipment
Sector	Automotive
Sub-Sector	Manufacturing Support
Occupation	Process Engineering
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	23/09/2013
Next Review Date	30/09/2015
NSQC Clearance Date	

Qualification Pack

ASC/N6419: Integrate the system and conduct trials

Description

This OS unit is about the process tryout engineer integrating the main and auxiliary components of process and planning the process trials

Scope

This unit/ task covers the following:

- assembly , Integration of all system elements/ parts
- verification of working of all mechanisms as planned
- conducting the trials , producing pilot batch / parts required for process / gauge validation etc.

Elements and Performance Criteria

Integration & assembly

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

PC1.. assemble all the parts of main/ auxiliary equipment

PC2.. integrate the pneumatic ,hydraulic and the automation accessories and fittings to be used for the process

PC3.. integrate mechanical , control systems , electrical/ electronic elements as per the design

Verification of all mechanisms

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

PC4.. conduct trial running to verify working of the systems as per the design achievement of full range of process parameters cycle time & quality characteristics of the product

Conduct Trials , making Pilot batch

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

PC5.. set the process as per the final cp with support from process validation engineer

PC6.. run the process to make the quantity necessary for the pilot batch size for the customer, gauge/ process validation.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. company manufacturing processes

KU2. sequence of operations for each shop floor activity

KU3. norms established CP

KU4. process validation methodology

KU5. working of various tools , machines and gauges for shop floor activities

KU6. all factors involved in the activity

KU7. all the work content reduction techniques

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KU8. all arithmetic calculations for determining productivity and cost of manufacturing

Generic Skills (GS)

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

- GS1.** interpret the safety instructions displayed on the system components/equipments and safely handle them accordingly
- GS2.** read the equipments and process specific details like cycle time , product characteristics etc. for through verification
- GS3.** communicate with shop floor workers for time motion study at shop floor
- GS4.** assist workers in doing their job as per the standards
- GS5.** share operation knowledge with co-workers
- GS6.** coordinate and take inputs from the workers for devising alternative methods for work content reduction
- GS7.** plan the execution process trials so that he can finish the activity in the stipulated time
- GS8.** workplace arrangements
- GS9.** identification of the NVA operations
- GS10.** Assess the problem, evaluate the possible solution(s) and use an optimum /best possible solution(s)
- GS11.** Identify immediate or temporary solutions to resolve delays and crisis situations
- GS12.** How to learn from past mistakes to resolve technical and nontechnical problems

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Integration & assembly</i>	15	36	-	-
PC1.. assemble all the parts of main/ auxiliary equipment	5	12	-	-
PC2.. integrate the pneumatic ,hydraulic and the automation accessories and fittings to be used for the process	5	12	-	-
PC3.. integrate mechanical , control systems , electrical/ electronic elements as per the design	5	12	-	-
<i>Verification of all mechanisms</i>	5	12	-	-
PC4.. conduct trial running to verify working of the systems as per the design achievement of full range of process parameters cycle time & quality characteristics of the product	5	12	-	-
<i>Conduct Trials , making Pilot batch</i>	10	22	-	-
PC5.. set the process as per the final cp with support from process validation engineer	5	11	-	-
PC6.. run the process to make the quantity necessary for the pilot batch size for the customer, gauge/ process validation.	5	11	-	-
NOS Total	30	70	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	ASC/N6419
NOS Name	Integrate the system and conduct trials
Sector	Automotive
Sub-Sector	Manufacturing Support
Occupation	Process Engineering
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	23/09/2013
Next Review Date	30/09/2015
NSQC Clearance Date	

Qualification Pack

ASC/N6420: Follow the process handover protocol

Description

This OS unit is about the process tryout engineer following the Process handover protocol at pre-PPAP stage for the new product development

Scope

The unit/ task covers the following:

- verification of tryout findings reflecting in CP/WI
- conduct training of Production Team Members for the work-stations
- compliance to standards

Elements and Performance Criteria

Verification of CP /WI

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

PC1.. check capturing the process parameters, pokayoke in the CP/WI

PC2.. make the limit samples, verification gauges with qa support.

Conduct Process Training

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

PC3.. based on the Process Flow steps and the CP train the operators for understanding and maintaining the process characteristics for each operation factors introducing variation poka yoke, and control actions .

PC4.. similarly finalize the wi with special control actions

PC5.. ensure that the entire activity is in accordance with the requirements of APQP, CP, PPAP & TS /ISO 16949

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. company manufacturing processes

KU2. sequence of operations for each shop floor activity

KU3. norms established CP/WI

KU4. the process parameters to be followed

KU5. pokayoke techniques

KU6. TS16949 requirements for new product development

KU7. CP, PPAP,APQP

Generic Skills (GS)

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

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- GS1.** interpret the CP
- GS2.** word the WI in clear, simple ,precise terms understood by production team members
- GS3.** communicate with shop floor workforce
- GS4.** work as a NPD CFT member
- GS5.** work for practical aspects of the process and give inputs to improve the design process from this perspective
- GS6.** plan the execution of the trials so that he can finish task activity wise in the stipulated time
- GS7.** analyze the way in which job is being performed and think of some other suitable method in order to minimize the ineffective time taken in each activity

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Verification of CP /WI</i>	12	28	-	-
PC1.. check capturing the process parameters, pokayoke in the CP/WI	6	14	-	-
PC2.. make the limit samples, verification gauges with qa support.	6	14	-	-
<i>Conduct Process Training</i>	18	42	-	-
PC3.. based on the Process Flow steps and the CP train the operators for understanding and maintaining the process characteristics for each operation factors introducing variation poka yoke, and control actions .	6	14	-	-
PC4.. similarly finalize the wi with special control actions	6	14	-	-
PC5.. ensure that the entire activity is in accordance with the requirements of APQP, CP, PPAP & TS /ISO 16949	6	14	-	-
NOS Total	30	70	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N6420
NOS Name	Follow the process handover protocol
Sector	Automotive
Sub-Sector	Manufacturing Support
Occupation	Process Engineering
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	23/09/2013
Next Review Date	30/09/2015
NSQC Clearance Date	

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.

Recommended Pass % aggregate for QP : 70

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	10
ASC/N0021.Maintain 5S at the work premises	25	75	-	-	100	10
ASC/N6418.Co-ordinate the receipt & inspection of equipment	30	70	-	-	100	30
ASC/N6419.Integrate the system and conduct trials	30	70	-	-	100	30

Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N6420.Follow the process handover protocol	30	70	-	-	100	20
Total	140	360	-	-	500	100

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.