

Qualification Pack



Manager-PLM Level 6

QP Code: ASC/Q6505

Version: 1.0

NSQF Level: 7

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Qualification Pack

Contents

| | |
|---|----|
| ASC/Q6505: Manager-PLM Level 6 | 3 |
| <i>Brief Job Description</i> | 3 |
| Applicable National Occupational Standards (NOS) | 3 |
| <i>Compulsory NOS</i> | 3 |
| <i>Qualification Pack (QP) Parameters</i> | 3 |
| ASC/N0022: Ensure implementation of 5S activities at the shop floor & the office area | 5 |
| ASC/N6510: Understand the information flow process for Product Lifecycle Management (PLM) | 13 |
| ASC/N6511: Identify the gaps in the information flow and devise PLM database | 17 |
| ASC/N6512: Collaborate with system developers and implement the PLM database | 22 |
| Assessment Guidelines and Weightage | 26 |
| <i>Assessment Guidelines</i> | 26 |
| <i>Assessment Weightage</i> | 26 |
| Acronyms | 28 |
| Glossary | 29 |

Qualification Pack

ASC/Q6505: Manager-PLM Level 6

Brief Job Description

Individuals at this job need to understand and manage the information flow pertaining to lifecycle of different products from the R&D department of the organization.

Personal Attributes

This job requires the individual to work at a desk base job for long hours. The individual should be result oriented and should also be able to demonstrate skills for information ordering, analytical reasoning, problem solving, time management, oral expression and comprehension.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N0022: Ensure implementation of 5S activities at the shop floor & the office area](#)
2. [ASC/N6510: Understand the information flow process for Product Lifecycle Management \(PLM\)](#)
3. [ASC/N6511: Identify the gaps in the information flow and devise PLM database](#)
4. [ASC/N6512: Collaborate with system developers and implement the PLM database](#)

Qualification Pack (QP) Parameters

| | |
|---|--|
| Sector | Automotive |
| Sub-Sector | R & D Support |
| Occupation | PLM |
| Country | India |
| NSQF Level | 7 |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/2144.0106 |
| Minimum Educational Qualification & Experience | B.Tech (Computer/ Mechanical/Electronics Engineering) with 5-10 Years of experience R&D department OR Certificate (ASDC Level 6 in R&D Jobrolesâ€™™ Certificate) with 0-6 Months of experience |

Qualification Pack

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|--|--|
| Minimum Level of Education for Training in School | |
| Pre-Requisite License or Training | Compulsory: Basic SDLC, MS Office, designing software like CAD, CAM, Pro E, Product lifecycle concepts etc. Voluntary: Enterprise Resource systems like SAP/ERP depending on applicability in organization |
| Minimum Job Entry Age | 18 Years |
| Last Reviewed On | 04/10/2013 |
| Next Review Date | 30/06/2020 |
| Deactivation Date | 30/06/2020 |
| NSQC Approval Date | 05/08/2015 |
| Version | 1.0 |

Qualification Pack

ASC/N0022: Ensure implementation of 5S activities at the shop floor & the office area

Description

This NOS is about overseeing the implementation of all 5 S activities both at the shop floor and the office area by the team members and training the team in implementation of the 5S principles

Scope

The individual needs to Ensure sorting, streamlining/ organizing, storage and documentation, systematic cleaning, standardization and sustenance across the plant and office premises of the organization as given in the organization guidelines

Elements and Performance Criteria

Ensure proper sorting of items at the work place

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

- PC1..** ensure all recyclable materials are put in designated containers
- PC2.** ensure no tools, fixtures & jigs are lying on workstations unless in use and no un-necessary items is lying on workbenches or work surfaces unless in use
- PC3.** ensure that the operators and other team members are segregating the waste in hazardous/ non hazardous waste as per the sorting work instructions
- PC4.** ensure that all the operators are following the technique of waste disposal and waste storage in the designated bins
- PC5..** segregate the items which are labelled at red tag items for the process area and keep them in the correct places
- PC6..** ensure that all the tools/ equipment/ fasteners/ spare parts are arranged as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions
- PC7.** check for return of any type of extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area
- PC8. .** oversee removal of unnecessary equipment, storage, furniture, unneeded inventory, supplies, parts and material
- PC9.** ensure that areas of material storage areas are not overflowing
- PC10.** ensure proper stacking and storage of 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

Ensure proper documentation and storage - streamlining & organizing the workplace

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

- PC11.** ensure that the team follows the given instructions and checks for labelling of fluids, oils lubricants, solvents, chemicals etc and proper storage of the same to avoid spillage, leakage, fire etc
- PC12.** make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions

Qualification Pack

- PC13.** ensure that organizing the workplace takes place with due considerations to the principles of wasted motions, ergonomics, work & method study .

Ensure cleaning of self and the work place

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

- PC14.** ensure that the area has floors swept, machinery clean and is generally neat and tidy in case of cleaning, ensure that correct displays are maintained on the floor which indicate potential safety hazards
- PC15..** ensure workbenches and work surfaces are clean and in good condition
- PC16..** ensure adherence to the cleaning schedule for the lighting system to ensure proper illumination
- PC17..** ensure all recyclable materials are put in designated containers

Ensure standardization

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

- PC18.** ensure that daily cleaning standards and schedules to create a clean working environment are followed across the plant
- PC19..** ensure all recyclable materials are put in designated containers
- PC20. .** ensure logical and user friendly documentation and file management for all activities across the plant and create guidelines around standardization of processes
- PC21.** ensure timely creation and sharing of the 5s checklists
- PC22.** ensure that the 5s manual are available as per the timelines

Ensure sustenance

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

- PC23.** ensure team cooperation during the audit of 5 s activities
- PC24.** ensure that workmen are periodically trained to address challenges related to 5s
- PC25..** participate actively in employee work groups on 5s and encourage team members for active participation
- PC26..** oversee that the staff/operators are trained and fully understand 5s procedures
- PC27. .** ensure that all the guidelines for what to do and what not to do to build sustainability in 5s are mentioned in the 5s check lists/ work instructions and are easily searchable
- PC28.** ensure continuous training of the team members on 5s in order to increase their awareness and support implementation
- PC29.** ensure that all visual controls, notice boards, symbols etc at the manufacturing place are created, working and are put up as per the requirement

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

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- KU6.** have knowledge of labels , signs & colours used as indicators
- KU7.** Have 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/unwantedsubstances on the process/ environment/ machinery/ humanbody
- KU10.** have knowledge of best and environment protective ways ofcleaning & 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
- GS2.** note down observations (if any) related to the process
- GS3.** write information documents to internal departments/ internal teams
- GS4.** read 5S instructions put up across the plant premises
- GS5.** effectively communicate information to team members inform employees in the plant and concerned functions about 5S
- GS6.** question the process head in order to understand the 5S related issues
- GS7.** attentively listen with full attention and comprehend the information given by the speaker during 5S training programs
- GS8.** use common sense and make judgments during day to day basis
- GS9.** use reasoning skills to identify and resolve basic problems using 5S
- GS10.** persuade team members to follow 5 S
- GS11.** ensure that the team members understand the importance of using 5 S tool
- GS12.** use innovative skills to perform and manage 5 S activities at the work desk and the shop floor
- GS13.** exhibit inquisitive behaviour to seek feedback and question on the existing set patterns of work emerge, techniques in CA/CI around 5 S work practices
- GS14.** do what is right, not what is a popular practice
- GS15.** follow shop floor rules& regulations and avoid deviations
- GS16.** lead by example in the plant premises while performing activities related to 5S
- GS17.** ensure self-cleanliness on a daily basis
- GS18.** demonstrate the will to keep the work area in a clean and orderly manner
- GS19.** accept additional responsibility for self and the team
- GS20.** encourage self and other to take greater responsibilities for managing 5S
- GS21.** identify obstacles and bottlenecks in the process and find basic level solutions for removing these obstacles

Qualification Pack

- GS22.** use previous experience in resolving problems and taking decisions
- GS23.** make timely and independent decisions on the line/ shift within the boundaries of the delegation matrix of the organization

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Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Ensure proper sorting of items at the work place</i> | 10 | 25 | - | - |
| PC1.. ensure all recyclable materials are put in designated containers | 1 | 2.5 | - | - |
| PC2. ensure no tools, fixtures & jigs are lying on workstations unless in use and no un-necessary items is lying on workbenches or work surfaces unless in use | 1 | 2.5 | - | - |
| PC3. ensure that the operators and other team members are segregating the waste in hazardous/ non hazardous waste as per the sorting work instructions | 1 | 2.5 | - | - |
| PC4. ensure that all the operators are following the technique of waste disposal and waste storage in the designated bins | 1 | 2.5 | - | - |
| PC5.. segregate the items which are labelled at red tag items for the process area and keep them in the correct places | 1 | 2.5 | - | - |
| PC6.. ensure that all the tools/ equipment/ fasteners/ spare parts are arranged as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions | 1 | 2.5 | - | - |
| PC7. check for return of any type of extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area | 1 | 2.5 | - | - |
| PC8. . oversee removal of unnecessary equipment, storage, furniture, unneeded inventory, supplies, parts and material | 1 | 2.5 | - | - |
| PC9. ensure that areas of material storage areas are not overflowing | 1 | 2.5 | - | - |
| PC10. ensure proper stacking and storage of 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 | 2.5 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Ensure proper documentation and storage - streamlining & organizing the workplace</i> | 3 | 7.5 | - | - |
| PC11. ensure that the team follows the given instructions and checks for labelling of fluids, oils lubricants, solvents, chemicals etc and proper storage of the same to avoid spillage, leakage, fire etc | 1 | 2.5 | - | - |
| PC12. make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions | 1 | 2.5 | - | - |
| PC13. ensure that organizing the workplace takes place with due considerations to the principles of wasted motions, ergonomics, work & method study . | 1 | 2.5 | - | - |
| <i>Ensure cleaning of self and the work place</i> | 4 | 10 | - | - |
| PC14. ensure that the area has floors swept, machinery clean and is generally neat and tidy in case of cleaning, ensure that correct displays are maintained on the floor which indicate potential safety hazards | 1 | 2.5 | - | - |
| PC15.. ensure workbenches and work surfaces are clean and in good condition | 1 | 2.5 | - | - |
| PC16.. ensure adherence to the cleaning schedule for the lighting system to ensure proper illumination | 1 | 2.5 | - | - |
| PC17.. ensure all recyclable materials are put in designated containers | 1 | 2.5 | - | - |
| <i>Ensure standardization</i> | 5 | 12.5 | - | - |
| PC18. ensure that daily cleaning standards and schedules to create a clean working environment are followed across the plant | 1 | 2.5 | - | - |
| PC19.. ensure all recyclable materials are put in designated containers | 1 | 2.5 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| PC20. . ensure logical and user friendly documentation and file management for all activities across the plant and create guidelines around standardization of processes | 1 | 2.5 | - | - |
| PC21. ensure timely creation and sharing of the 5s checklists | 1 | 2.5 | - | - |
| PC22. ensure that the 5s manual are available as per the timelines | 1 | 2.5 | - | - |
| <i>Ensure sustenance</i> | 7 | 16 | - | - |
| PC23. ensure team cooperation during the audit of 5 s activities | 1 | 2.5 | - | - |
| PC24. ensure that workmen are periodically trained to address challenges related to 5s | 1 | 2.5 | - | - |
| PC25.. participate actively in employee work groups on 5s and encourage team members for active participation | 1 | 2 | - | - |
| PC26.. oversee that the staff/operators are trained and fully understand 5s procedures | 1 | 2 | - | - |
| PC27. . ensure that all the guidelines for what to do and what not to do to build sustainability in 5s are mentioned in the 5s check lists/ work instructions and are easily searchable | 1 | 2.5 | - | - |
| PC28. ensure continuous training of the team members on 5s in order to increase their awareness and support implementation | 1 | 2 | - | - |
| PC29. ensure that all visual controls, notice boards, symbols etc at the manufacturing place are created, working and are put up as per the requirement | 1 | 2.5 | - | - |
| NOS Total | 29 | 71 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|--|
| NOS Code | ASC/N0022 |
| NOS Name | Ensure implementation of 5S activities at the shop floor & the office area |
| Sector | Automotive |
| Sub-Sector | Generic |
| Occupation | Generic |
| NSQF Level | 6 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 15/03/2014 |
| Next Review Date | 15/03/2016 |
| NSQC Clearance Date | |

Qualification Pack

ASC/N6510: Understand the information flow process for Product Lifecycle Management (PLM)

Description

This OS is about individual working on to understand the information flow process for product life cycle management from R&D department

Scope

The unit/ task covers the following: understanding of information flow process identifying database PLM requirement

Elements and Performance Criteria

Understanding the information flow process

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

- PC1..** interact with different department such as r&d, manufacturing, sales and marketing, strategic sourcing to understand the existing information flow process
- PC2..** understand the level and kind of information about the product is required by the concerned departments
- PC3..** also understand the kind and level of information about product is required by different level of people in a department
- PC4..** record and analyze all the inputs received from all the departments

Identifying database about PLM requirement

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

- PC5..** based on the interaction with different department understand the complexity and security of the information flow
- PC6..** understand the level of information integration required among different department such as customer relationship management (CRM) information integration, supply chain management (SCM) information integration
- PC7..** understand the cost implications by integrating those information such as reduced prototyping cost, reduced time to market cost, saving through reuse of data etc
- PC8..** also analyze what kind of storage space, internet bandwidth is required for managing that complexity of information
- PC9..** based on above information analyze the PLM requirement keeping in the view of cost, complexity and security of information flow

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** product portfolio of organization
- KU2.** the manufacturing processes of organization

Qualification Pack

- KU3.** protocol for communication regarding PLM among the various departments of the organization
- KU4.** agencies on contract for testing , casual manpower
- KU5.** protocol for periodic activities such as budgeting, planning etc
- KU6.** technical know how about SDLC, CAD, CAM etc.
- KU7.** usage of internet, information recording and storage at the server
- KU8.** basic understanding of common functions of R&D
- KU9.** understanding on basic functionality of different products
- KU10.** information flow system followed in the organization like SAP/ERP

Generic Skills (GS)

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

- GS1.** able to understand and articulate the information
- GS2.** interpret and understand information flow
- GS3.** read the details about different products
- GS4.** prepare the long term and short term requirement plans
- GS5.** R&D department & other interfaces in the organization
- GS6.** seniors and supervisors for telling manpower hiring requirements
- GS7.** distribute workload for acquiring information about PLM
- GS8.** share operation knowledge with colleagues and co-workers
- GS9.** organize the PLM related information capturing activity in an efficient and timely manner
- GS10.** devise the measures for addressing the gaps in information flow
- GS11.** identification of problems (technical and non-technical)
- GS12.** escalation procedures
- GS13.** Short term/long term planning strategy

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Understanding the information flow process</i> | 14 | 30 | - | - |
| PC1.. interact with different department such as r&d, manufacturing, sales and marketing, strategic sourcing to understand the existing information flow process | 4 | 7 | - | - |
| PC2.. understand the level and kind of information about the product is required by the concerned departments | 3 | 7 | - | - |
| PC3.. also understand the kind and level of information about product is required by different level of people in a department | 3 | 7 | - | - |
| PC4.. record and analyze all the inputs received from all the departments | 4 | 9 | - | - |
| <i>Identifying database about PLM requirement</i> | 16 | 40 | - | - |
| PC5.. based on the interaction with different department understand the complexity and security of the information flow | 3 | 8 | - | - |
| PC6.. understand the level of information integration required among different department such as customer relationship management (CRM) information integration, supply chain management (SCM) information integration | 3 | 8 | - | - |
| PC7.. understand the cost implications by integrating those information such as reduced prototyping cost, reduced time to market cost, saving through reuse of data etc | 4 | 8 | - | - |
| PC8.. also analyze what kind of storage space, internet bandwidth is required for managing that complexity of information | 3 | 8 | - | - |
| PC9.. based on above information analyze the PLM requirement keeping in the view of cost, complexity and security of information flow | 3 | 8 | - | - |
| NOS Total | 30 | 70 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|--|
| NOS Code | ASC/N6510 |
| NOS Name | Understand the information flow process for Product Lifecycle Management (PLM) |
| Sector | Automotive |
| Sub-Sector | R & D Support |
| Occupation | Plm |
| NSQF Level | 7 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 04/10/2013 |
| Next Review Date | 30/10/2015 |
| NSQC Clearance Date | |

Qualification Pack

ASC/N6511: Identify the gaps in the information flow and devise PLM database

Description

This OS unit is about identifying the gap in the current information flow among different department and accordingly devise PLM database

Scope

This unit/ task covers the following for material requirement for Production as well as dispatches: analysing the existing information flow system in the organization pertaining to flow of information about product and identifying the gap devise PLM database to fulfill the gaps in the information flow

Elements and Performance Criteria

Analyzing existing information flow

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

- PC1..** interact with different department for gathering information pertaining to existing information flow process for design documents , testing, verification and validation, failure reports, etc.
- PC2..** assess the current information flow system and check whether current information flow system will effectively take care complexity of information flow among various department
- PC3..** based on above analysis identify the gap in the information flow system

Devising PLM database

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

- PC4..** based on the analysis in the current information flow system devise PLM database which will integrate all the product related follow information - conceiving of the idea - product designing - realizing material acquisition etc, and- maintaining lifecycle stage management till disposal of the product
- PC5..** review the cost of ownership including it labor, software and hardware requirement
- PC6..** design the testing for the plm system in special environment to identify adequacy, problems if any before the go live stage.
- PC7..** check whether any licensing fee, if any, need to be paid and on which flat form PLM will run
- PC8..** enquire about the protective software security system for avoiding any future vulnerability
- PC9..** ensure special requirements of the organization have been configured into the system.
- PC10..** ensure that PLM will fulfill gaps in information flow system

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the manufacturing processes of organization
- KU2.** protocol for communication regarding PLM among the various departments of the organization

Qualification Pack

- KU3.** agencies on contract for testing , casual manpower
- KU4.** technical know how about SDLC, CAD, CAE,PRO-E, CAM etc
- KU5.** usage of internet, information recording and storing at the server
- KU6.** basic understanding of common functions of R&D
- KU7.** understanding on basic functionality of different products

Generic Skills (GS)

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

- GS1.** able to understand and articulate the information
- GS2.** interpret and understand information flow
- GS3.** read the details about different products
- GS4.** prepare the long term and short term requirement plans
- GS5.** R&D department & other interfaces in the organization
- GS6.** seniors and supervisors for telling manpower hiring requirements
- GS7.** distribute workload for acquiring information about PLM
- GS8.** share operation knowledge with colleagues and co-workers
- GS9.** organize the PLM related information capturing activity in an efficient and timely manner
- GS10.** take steps continuously to address the gaps, if any
- GS11.** identification of problems (technical and non-technical)
- GS12.** escalation procedures
- GS13.** Short term/long term planning strategy

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Analyzing existing information flow</i> | 9 | 22 | - | - |
| PC1.. interact with different department for gathering information pertaining to existing information flow process for design documents , testing, verification and validation, failure reports, etc. | 3 | 7 | - | - |
| PC2.. assess the current information flow system and check whether current information flow system will effectively take care complexity of information flow among various department | 3 | 7 | - | - |
| PC3.. based on above analysis identify the gap in the information flow system | 3 | 8 | - | - |
| <i>Devising PLM database</i> | 21 | 48 | - | - |
| PC4.. based on the analysis in the current information flow system devise PLM database which will integrate all the product related follow information - conceiving of the idea - product designing - realizing material acquisition etc, and- maintaining lifecycle stage management till disposal of the product | 3 | 8 | - | - |
| PC5.. review the cost of ownership including it labor, software and hardware requirement | 3 | 7 | - | - |
| PC6.. design the testing for the plm system in special environment to identify adequacy, problems if any before the go live stage. | 4 | 9 | - | - |
| PC7.. check whether any licensing fee, if any, need to be paid and on which flat form PLM will run | 3 | 6 | - | - |
| PC8.. enquire about the protective software security system for avoiding any future vulnerability | 3 | 6 | - | - |
| PC9.. ensure special requirements of the organization have been configured into the system. | 3 | 6 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| PC10.. ensure that PLM will fulfill gaps in information flow system | 2 | 6 | - | - |
| NOS Total | 30 | 70 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|---|
| NOS Code | ASC/N6511 |
| NOS Name | Identify the gaps in the information flow and devise PLM database |
| Sector | Automotive |
| Sub-Sector | R & D Support |
| Occupation | Plm |
| NSQF Level | 7 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 04/10/2013 |
| Next Review Date | 30/10/2015 |
| NSQC Clearance Date | |

Qualification Pack

ASC/N6512: Collaborate with system developers and implement the PLM database

Description

This OS unit is about the collaborating with system developers and implementing the PLM based on the requirement gathered

Scope

This unit/ task covers the following: collaborating with system developers for developing and implementing PLM based on the requirement gathered from different department pre and post support

Elements and Performance Criteria

Collaborating with system developer for developing and implementing PLM

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

- PC1..** interact with different software vendors for developing the PLM to meet all the information integration and information flow starting from conception of the idea till disposal of the product
- PC2..** ensure that software developers incorporate all the necessary requirement such what level of information access will be different department and different level of people as per requirement/hierarchy system
- PC3..** carry out the techno-commercial feasibility analysis with system developer to ensure it fall under budgeted plan
- PC4..** based on techno-commercial feasibility analysis, total cost of ownership (IT labor, software and hardware) implement PLM in the organization

Pre and post support

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

- PC5..** before plm installation ensure the concerned IT department and system engineers are trained about plm usage and application
- PC6..** arrange to train to users by system developers for easy access of PLM database
- PC7..** ensure users get level of information access as per their usage requirement based sensitivity of the information

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** escalation procedure in case of crisis and emergency situations
- KU2.** the manufacturing processes and basic product knowledge of organization
- KU3.** protocol for communication regarding PLM among the various departments of the organization
- KU4.** agencies on contract for testing , casual manpower
- KU5.** usage of internet, information recording and storing at the server

Qualification Pack

- KU6.** basic understanding of common functions of R&D
- KU7.** understanding on basic functionality of different products

Generic Skills (GS)

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

- GS1.** able to understand and articulate the information
- GS2.** interpret and understand information flow
- GS3.** read the details about different products
- GS4.** prepare the long term and short term requirement plans
- GS5.** R&D department & other interfaces in the organization
- GS6.** seniors and supervisors for telling manpower hiring requirements
- GS7.** distribute workload for acquiring information about PLM
- GS8.** share operation knowledge with colleagues and co-workers
- GS9.** organize the PLM related information capturing activity in an efficient and timely manner
- GS10.** take steps continuously to address the gaps, if any
- GS11.** identification of problems (technical and non-technical)
- GS12.** escalation procedures
- GS13.** Short term/long term planning strategy

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Collaborating with system developer for developing and implementing PLM</i> | 19 | 44 | - | - |
| PC1.. interact with different software vendors for developing the PLM to meet all the information integration and information flow starting from conception of the idea till disposal of the product | 5 | 11 | - | - |
| PC2.. ensure that software developers incorporate all the necessary requirement such what level of information access will be different department and different level of people as per requirement/hierarchy system | 4 | 11 | - | - |
| PC3.. carry out the techno-commercial feasibility analysis with system developer to ensure it fall under budgeted plan | 5 | 11 | - | - |
| PC4.. based on techno-commercial feasibility analysis, total cost of ownership (IT labor, software and hardware) implement PLM in the organization | 5 | 11 | - | - |
| <i>Pre and post support</i> | 11 | 26 | - | - |
| PC5.. before plm installation ensure the concerned IT department and system engineers are trained about plm usage and application | 4 | 9 | - | - |
| PC6.. arrange to train to users by system developers for easy access of PLM database | 4 | 9 | - | - |
| PC7.. ensure users get level of information access as per their usage requirement based sensitivity of the information | 3 | 8 | - | - |
| NOS Total | 30 | 70 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|---|
| NOS Code | ASC/N6512 |
| NOS Name | Collaborate with system developers and implement the PLM database |
| Sector | Automotive |
| Sub-Sector | R & D Support |
| Occupation | Plm |
| NSQF Level | 7 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 04/10/2013 |
| Next Review Date | 30/10/2015 |
| 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 % : 75

Assessment Weightage

Compulsory NOS

| National Occupational Standards | Theory Marks | Practical Marks | Project Marks | Viva Marks | Total Marks | Weightage |
|--|--------------|-----------------|---------------|------------|-------------|-----------|
| ASC/N0022.Ensure implementation of 5S activities at the shop floor & the office area | 29 | 71 | - | - | 100 | 15 |
| ASC/N6510.Understand the information flow process for Product Lifecycle Management (PLM) | 30 | 70 | - | - | 100 | 30 |
| ASC/N6511.Identify the gaps in the information flow and devise PLM database | 30 | 70 | - | - | 100 | 30 |

Qualification Pack

| National Occupational Standards | Theory Marks | Practical Marks | Project Marks | Viva Marks | Total Marks | Weightage |
|---|--------------|-----------------|---------------|------------|-------------|------------|
| ASC/N6512.Collaborate with system developers and implement the PLM database | 30 | 70 | - | - | 100 | 25 |
| Total | 119 | 281 | - | - | 400 | 100 |

Qualification Pack

Acronyms

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

Qualification Pack

Glossary

| | |
|--|--|
| Sector | Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests. |
| Sub-sector | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components. |
| Occupation | Occupation is a set of job roles, which perform similar/ related set of functions in an industry. |
| Job role | Job role defines a unique set of functions that together form a unique employment opportunity in an organisation. |
| Occupational Standards (OS) | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts. |
| Performance Criteria (PC) | Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task. |
| National Occupational Standards (NOS) | NOS are occupational standards which apply uniquely in the Indian context. |
| Qualifications Pack (QP) | QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code. |
| Unit Code | Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N' |
| Unit Title | Unit title gives a clear overall statement about what the incumbent should be able to do. |
| Description | Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for. |
| Scope | Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required. |

Qualification Pack

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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. |