Qualification Pack

Warehouse Manager

Electives: Automated warehouse operations/ Cold Chain Operations/ Dry Bulk warehouse operations/ Bonded warehouse operations

QP Code: LSC/Q0103

Version: 3.0

NSQF Level: 6

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Qualification Pack

LSC/Q0103: Warehouse Manager

Brief Job Description

A Warehouse Manager oversees the warehouse facility's daily operations and overall functioning and meeting productivity targets. The individual ensures that goods are received, stored, and dispatched efficiently and safely. Their primary goal is to optimise warehouse operations, manage staff, and ensure smooth warehouse management.

Personal Attributes

The individual should have good communication skills and good technical, analytical, and professional skills. She/he should be able to help the operations team solve problems, aid management in decision-making, and manage and motivate a team. The role may require occasional additional hours and some physical effort.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. LSC/N9601: Review and facilitate daily operations

2. LSC/N9701: Manage Business and stakeholder relations

3. LSC/N9914: Manage operations and Employee Performance

4. LSC/N9603: Profit and Loss account management and cost accounting

5. LSC/N0111: Support in warehouse layout design

6. LSC/N0139: Optimise and continuously improve warehouse operations

7. LSC/N9911: Follow health, safety, security procedures and maintain integrity, ethics at workplace

8. DGT/VSQ/N0103: Employability Skills (90 Hours)

Electives(mandatory to select at least one):

Elective 1: Automated warehouse operations

This unit is about managing operations using automated warehousing techniques.

1. LSC/N0112: Automated warehouse operations

Elective 2: Cold Chain Operations

This unit is about managing cold-chain warehouse operations.

    1. LSC/N0113: Cold Chain Operations

Elective 3: Dry Bulk warehouse operations

This unit is about managing dry bulk warehousing operations

    1. LSC/N0114: Dry Bulk warehouse operations

Elective 4: Bonded warehouse operations

This unit is about managing Bonded warehouse operations.

    1. LSC/N0115: Bonded warehouse operations

Qualification Pack (QP) Parameters

Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting
Country	India
NSQF Level	6
Credits	26
Aligned to NCO/ISCO/ISIC Code	NCO-2015/1324.1200 and ISCO-08/1324
Minimum Educational Qualification & Experience	Completed 4 year UG program (Or Equivalent) with 2 Years of experience Relevant experience in warehousing OR Completed 3 year UG degree with 3 Years of experience Relevant experience in warehousing OR Completed 3 year diploma after 10th with 5 Years of experience Relevant experience in warehousing OR Previous relevant Qualification of NSQF Level (5) with 3 Years of experience Relevant experience in warehousing

Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	23 Years
Last Reviewed On	NA
Next Review Date	07/10/2028
NSQC Approval Date	07/10/2025
Version	3.0
Reference code on NQR	QG-06-TW-046162025-V2-LSC
NQR Version	2.0

LSC/N9601: Review and facilitate daily operations

Description

This OS unit is about conducting daily status reviews and facilitating daily operations

Scope

The scope covers the following :

- Review status of previous day's work and pending activities
- Forecast and budget resources for operations
- Approve daily work plans and allocate tasks
- Facilitate smooth operations
- Ensure compliance with legal and regulatory requirements

Elements and Performance Criteria

Review the status of previous day's work

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

PC1. Review the agenda for the day and brief the team on objectives, priorities, and important updates.

PC2. Communicate any special tasks, challenges, or deadlines and update the team members on operational targets and key metrics.

PC3. Assess the previous day's reports with supervisors, including inspection and output reports.

PC4. Identify pending works and approve pending orders of the previous day.

PC5. Resolve issues about pending activities or escalate them to senior management or an external consultant/ technician.

PC6. Review performance and utilisation of budgeted resources, making amendments as required.

PC7. Ensure the department meets its daily performance targets.

PC8. Confirm that all necessary resources (materials, equipment, personnel) are available and aligned with the day's tasks.

PC9. Analyse any operational challenges from the previous day, such as bottlenecks or delays, and ensure they are resolved.

Forecast and budget resources for operations

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

PC10. Analyse trend patterns and make suitable assumptions for forecasting.

PC11. Prepare forecasts and accordingly plan and budget for workforce and other resources.

PC12. Set up consensus meetings with peers and seniors and get their approval on the forecast and budgets.

PC13. Prepare weekly and monthly work plans as per the forecast and budget.

PC14. Make amendments to budgeted resources based on daily performance reviews.

Approve work plans and allocate tasks

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

PC15. Identify priority tasks and inform supervisors and executives.

PC16. Approve and share the weekly work plan with supervisors, allocating resources per the plan.

PC17. Review and approve any ad-hoc request for alternate or additional resources.

PC18. Approve daily work plans prepared by supervisors and examine staff turnover issues.

Facilitate smooth operations

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

PC19. Take immediate action to address discrepancies, such as allocating additional resources or providing guidance to staff.

PC20. Coordinate with other departments and external resources to escalate and expedite stuck cases.

PC21. Actively promote knowledge and resource sharing with peers and across functions.

PC22. Administer & optimise administration processes and procedures.

PC23. Prepare reports, MIS and other artefacts as necessitated by the senior management.

PC24. Identify the avenues for driving cost efficiency and productivity.

PC25. Actively manage department budget.

PC26. Focus on new revenue opportunities while strengthening and sustaining current revenue opportunities.

PC27. Coordinate with clients and keep them updated on delays, pendency, etc.

PC28. Analyse the work of executives and supervisors to check for errors.

PC29. Review reports to monitor operational performance.

PC30. Guide the team in using the latest technology, ERP, and available IT infrastructure.

PC31. Address any equipment breakdowns, staffing shortages, or safety concerns.

PC32. Coordinate with relevant teams to troubleshoot and find quick solutions.

Ensure compliance with legal and regulatory framework

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

PC33. Monitor compliance with relevant local, country and international laws and processes regularly.

PC34. Monitor compliance concerning organisational policies and procedures.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Vision, mission and values of the Company.

KU2. Company's reporting structure to support and expedite project activities.

KU3. Company's policy and work instructions on quality standards as well as documentation policy.

KU4. Importance of the individual's role in the workflow.

KU5. Company's policy on business ethics and code of conduct.

KU6. Business and performance of the Company.

KU7. Knowledge repository and various projects done by the Company.

KU8. Occupational health and safety standards, handling of special and dangerous goods, etc.

KU9.   Procedures for dealing with loss or damage to goods.

KU10. Value of items handled and implications of damage/loss of the same.

KU11. Risk and impact of not following defined work, safety and security procedures.

KU12. Company policy defined TATs and output metrics for daily operations.

KU13. Just-in-time (JIT) mode of inventory management.

KU14. The coding system followed to label items.

KU15. The IT system and ERP system of the organisation.

KU16. Process flow of service operation and understanding of basic supply chain value chain.

KU17. State/country taxes and routing.

KU18. Local and global geographies.

KU19. Use of enterprise resource planning software (ERP) and the MIS.

KU20. Use tools for documentation: MS Excel and MS Word, etc.

KU21. Basics of statistical and quantitative analysis tools.

KU22. Structure and implications of fees involved.

Generic Skills (GS)

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

GS1.   Work instructions, customer requirements and quality policy.

GS2.   Legal policies and regulations.

GS3.   Internal communications memorandums.

GS4.   Checklists and daily reports.

GS5.   Maintain the record as per the Company's policy.

GS6.   Make a note of instructions for team members.

GS7.   Develop operating procedures and their updation.

GS8.   Write communications letters both within the Company and to other stakeholders and clients.

GS9.   Prepare daily reports checklists and create documents for internal communication.

GS10. Communicate with all internal and external stakeholders.

GS11. Share experiences and guide juniors and peers.

GS12. Listen to queries and requirements of internal and external stakeholders.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Review the status of previous day's work	**9**	**18**	**-**	**2.5**
PC1. Review the agenda for the day and brief the team on objectives, priorities, and important updates.	1	2	-	0.5
PC2. Communicate any special tasks, challenges, or deadlines and update the team members on operational targets and key metrics.	1	2	-	-
PC3. Assess the previous day's reports with supervisors, including inspection and output reports.	1	2	-	0.5
PC4. Identify pending works and approve pending orders of the previous day.	1	2	-	-
PC5. Resolve issues about pending activities or escalate them to senior management or an external consultant/ technician.	1	2	-	0.5
PC6. Review performance and utilisation of budgeted resources, making amendments as required.	1	2	-	-
PC7. Ensure the department meets its daily performance targets.	1	2	-	0.5
PC8. Confirm that all necessary resources (materials, equipment, personnel) are available and aligned with the day's tasks.	1	2	-	-
PC9. Analyse any operational challenges from the previous day, such as bottlenecks or delays, and ensure they are resolved.	1	2	-	0.5
Forecast and budget resources for operations	**5**	**10**	**-**	**1.5**
PC10. Analyse trend patterns and make suitable assumptions for forecasting.	1	2	-	0.5
PC11. Prepare forecasts and accordingly plan and budget for workforce and other resources.	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. Set up consensus meetings with peers and seniors and get their approval on the forecast and budgets.	1	2	-	0.5
PC13. Prepare weekly and monthly work plans as per the forecast and budget.	1	2	-	-
PC14. Make amendments to budgeted resources based on daily performance reviews.	1	2	-	0.5
Approve work plans and allocate tasks	**4**	**8**	**-**	**1**
PC15. Identify priority tasks and inform supervisors and executives.	1	2	-	0.5
PC16. Approve and share the weekly work plan with supervisors, allocating resources per the plan.	1	2	-	-
PC17. Review and approve any ad-hoc request for alternate or additional resources.	1	2	-	0.5
PC18. Approve daily work plans prepared by supervisors and examine staff turnover issues.	1	2	-	-
Facilitate smooth operations	**11**	**22**	**-**	**4**
PC19. Take immediate action to address discrepancies, such as allocating additional resources or providing guidance to staff.	1	2	-	0.5
PC20. Coordinate with other departments and external resources to escalate and expedite stuck cases.	1	2	-	-
PC21. Actively promote knowledge and resource sharing with peers and across functions.	1	2	-	0.5
PC22. Administer & optimise administration processes and procedures.	1	2	-	-
PC23. Prepare reports, MIS and other artefacts as necessitated by the senior management.	1	2	-	0.5
PC24. Identify the avenues for driving cost efficiency and productivity.	1	2	-	-
PC25. Actively manage department budget.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. Focus on new revenue opportunities while strengthening and sustaining current revenue opportunities.	1	2	-	-
PC27. Coordinate with clients and keep them updated on delays, pendency, etc.	-	1	-	0.5
PC28. Analyse the work of executives and supervisors to check for errors.	1	1	-	-
PC29. Review reports to monitor operational performance.	-	1	-	0.5
PC30. Guide the team in using the latest technology, ERP, and available IT infrastructure.	1	1	-	-
PC31. Address any equipment breakdowns, staffing shortages, or safety concerns.	-	1	-	0.5
PC32. Coordinate with relevant teams to troubleshoot and find quick solutions.	1	1	-	0.5
Ensure compliance with legal and regulatory framework	**1**	**2**	**-**	**1**
PC33. Monitor compliance with relevant local, country and international laws and processes regularly.	-	1	-	0.5
PC34. Monitor compliance concerning organisational policies and procedures.	1	1	-	0.5
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9601
NOS Name	Review and facilitate daily operations
Sector	Logistics
Sub-Sector	Terminals, ICDs and CFS, Generic
Occupation	Generic
NSQF Level	6
Credits	2
Version	4.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

LSC/N9701: Manage Business and stakeholder relations

Description

This unit is about generating new business and maintaining relations with all stakeholders

Scope

The scope covers the following :

- Generate new business prospects
- Maintain customer relations
- Coordinate with government officials, vendors and contractors

Elements and Performance Criteria

Generate new business prospects

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

PC1. Build market intelligence and stay current with service offerings and developments in the organisation and the industry.

PC2. Prepare and implement a sales plan for acquiring new clients.

PC3. Obtain the list of existing clients and new prospects from the Company's sales database.

PC4. Prepare sales targets and relationship strategies.

PC5. Prioritise the clients for contacting, based on the previous relationship-building calls made to each of them.

PC6. Meet clients to offer new services and take feedback for current services.

PC7. Identify clients' business needs and offer customised and bundled solutions.

PC8. Negotiate on costs, close the deal and collect organisational and payment details of the client.

PC9. Take the client's feedback before leaving.

Maintain customer relations

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

PC10. Regularly interact with the client over the phone, through emails, or personal visits.

PC11. Address customers' queries effectively and take appropriate action on customer escalations.

PC12. Handle customer grievances such as shipment damage or tampering, extra charges levied, failure to deliver as per commitment, and delays.

PC13. Provide regular information to clients regarding new offerings, discounts, customised solutions, etc.

Coordinate with government officials, vendors and contractors

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

PC14. Represent the interests of the Company whenever required and manage & protect the Company's reputation.

PC15. Liaise with customs, Partner Government Agencies (PGAs), other Govt. departments, etc., and build strong professional relations with them.

PC16. Participate in advisory groups to put forth ideas/suggestions for improvements.

PC17. Discuss and review a holistic assessment of the Company's assets, facilities, equipment, and activities with stakeholders to identify security needs and threats.

PC18. Review regularly, adhere to SLA agreed to by vendors/contractors in documented contracts.

PC19. Conduct forensic audits to flag any deviation in contract awards if required, along with procurement & finance teams.

PC20. Analyse and manage insurance claim requests.

PC21. Coordinate with marketing agencies for publicity of services of the Company.

PC22. Ensure adherence to SLA agreed to by vendors/contractors in documented contracts.

PC23. Negotiate with carriers, warehouse and transport operators, customs brokers, insurance company representatives, vendors, etc., for services, preferential rates, service level agreements (SLA), payment periods, etc.

PC24. Coordinate with labour contractors and local vendors for sufficient workforce, carrier vehicle availability as per work demand.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Vision, mission and values of the Company.

KU2. Company's reporting structure to support and expedite project activities.

KU3. Company's policy and work instructions on quality standards and documentation policy.

KU4. Importance of the individual's role in the workflow.

KU5. Company's policy on business ethics and code of conduct.

KU6. Business and performance of the Company.

KU7. Knowledge repository and various projects done by the Company.

KU8. Occupational health and safety standards and handling of dangerous and special goods.

KU9. Procedures for dealing with loss or damage to goods.

KU10. Value of items handled and implications of damage/loss of the same.

KU11. Risk and impact of not following defined work, safety and security procedures.

KU12. Company policy defined Turn Around Time (TATs) and output metrics for daily operations.

KU13. Just-in-time (JIT) mode of inventory management.

KU14. The coding system followed to label items.

KU15. The Information Technology(IT) system and Enterprise resource planning (ERP) system of the organisation.

KU16. Process flow of service operation, value chain and basic supply chain value map within the sub-sector.

KU17. State/country taxes and routing.

KU18. Local and global geographical knowledge.

KU19. Use of ERP software, including Warehouse Management System (WMS), Material Management System (MMS) and Transport Management System (TMS).

KU20. Use of tools for documentation: MS Excel and MS Word, etc.

KU21. Basics of statistical and quantitative analysis tools.

KU22. Use of spreadsheets to tabulate and analyse the data.

KU23. Structure and implications of charges involved in transportation, warehousing, etc.

KU24. Transit rules and regulations.

KU25. Significance of team coordination to achieve revenue and productivity targets of the organisation.

KU26. Customer relationship management.

KU27. About contract management and SLA.

KU28. Factors for evaluation of the performance of vendors.

Generic Skills (GS)

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

GS1. Read company quality policy, work instructions and customer requirement.

GS2. Read transit rules and trade policies.

GS3. Read regulatory requirements associated with customs clearance.

GS4. Read emails, invoices, letters, notes, memos, agreement reports, etc.

GS5. Write emails and letters to government officials, customers, vendors, etc.

GS6. Note information about vendors on factors like quality of service, on-time order completion, cooperation, etc.

GS7. Listen to the requirements of the client.

GS8. Communicate with clients, government officials and other external stakeholders by using various communication channels.

GS9. Exchange information with other managers, supervisory and operational staff at all levels.

GS10. Carefully listen to vendor concerns and issues.

GS11. Decide on corrective measures to improve customer ratings.

GS12. Decide on actions to be taken on escalations raised by the customer.

GS13. Decide appropriate action for poor performance and lack of cooperation by vendor/third-party logistics (3PL).

GS14. Identify and prioritise select clients and prospects for generating Business.

GS15. Liaison with customers, government officials, vendors and staff to ensure the smooth functioning of service centre/office.

GS16. Plan and organise review meetings with vendors and contractors.

GS17. Organise projects/ training plans for performance improvement.

GS18. Take prompt action on queries raised by the customer.

GS19. Analyse customer requirements and offer customised or bundled solutions.

GS20. Suggest ideas and solutions to increase customer loyalty and satisfaction.

GS21. Resolve the queries raised by customers as well as government officials.

GS22. Address the queries raised by vendors, contractors and other external stakeholders that are not resolved by the supervisor and executives.

GS23. Identify the factors which improved customer satisfaction as well as ratings of the organisation.

GS24. Identify bundles and customisations that cater to the requirements of the majority of customers.

GS25. Analyse key reasons for non-performance and customer dis-satisfaction.

GS26. Identify key areas that are crucial for performance improvement.

GS27. Improve work processes by adopting best practices for quality of service to the customers.

GS28. Act upon constructively on any problems as pointed out by customers, vendors or government officials.

GS29. Handle personality clashes effectively.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Generate new business prospects	**15**	**30**	**-**	**4.5**
PC1. Build market intelligence and stay current with service offerings and developments in the organisation and the industry.	2	4	-	0.5
PC2. Prepare and implement a sales plan for acquiring new clients.	2	4	-	0.5
PC3. Obtain the list of existing clients and new prospects from the Company's sales database.	2	4	-	0.5
PC4. Prepare sales targets and relationship strategies.	2	4	-	0.5
PC5. Prioritise the clients for contacting, based on the previous relationship-building calls made to each of them.	2	4	-	0.5
PC6. Meet clients to offer new services and take feedback for current services.	2	4	-	0.5
PC7. Identify clients' business needs and offer customised and bundled solutions.	1	2	-	0.5
PC8. Negotiate on costs, close the deal and collect organisational and payment details of the client.	1	2	-	0.5
PC9. Take the client's feedback before leaving.	1	2	-	0.5
Maintain customer relations	**4**	**8**	**-**	**2**
PC10. Regularly interact with the client over the phone, through emails, or personal visits.	1	2	-	0.5
PC11. Address customers' queries effectively and take appropriate action on customer escalations.	1	2	-	0.5
PC12. Handle customer grievances such as shipment damage or tampering, extra charges levied, failure to deliver as per commitment, and delays.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. Provide regular information to clients regarding new offerings, discounts, customised solutions, etc.	1	2	-	0.5
Coordinate with government officials, vendors and contractors	**11**	**22**	**-**	**3.5**
PC14. Represent the interests of the Company whenever required and manage & protect the Company's reputation.	1	2	-	0.5
PC15. Liaise with customs, Partner Government Agencies (PGAs), other Govt. departments, etc., and build strong professional relations with them.	1	2	-	0.5
PC16. Participate in advisory groups to put forth ideas/suggestions for improvements.	1	2	-	0.5
PC17. Discuss and review a holistic assessment of the Company's assets, facilities, equipment, and activities with stakeholders to identify security needs and threats.	1	2	-	-
PC18. Review regularly, adhere to SLA agreed to by vendors/contractors in documented contracts.	1	2	-	0.5
PC19. Conduct forensic audits to flag any deviation in contract awards if required, along with procurement & finance teams.	1	2	-	-
PC20. Analyse and manage insurance claim requests.	1	2	-	0.5
PC21. Coordinate with marketing agencies for publicity of services of the Company.	1	2	-	-
PC22. Ensure adherence to SLA agreed to by vendors/contractors in documented contracts.	1	2	-	0.5
PC23. Negotiate with carriers, warehouse and transport operators, customs brokers, insurance company representatives, vendors, etc., for services, preferential rates, service level agreements (SLA), payment periods, etc.	1	2	-	-
PC24. Coordinate with labour contractors and local vendors for sufficient workforce, carrier vehicle availability as per work demand.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	**30**	**60**	**-**	**10**

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9701
NOS Name	Manage Business and stakeholder relations
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	5
Credits	2
Version	4.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

LSC/N9914: Manage operations and Employee Performance

Description

This unit is about reviewing performance and improving employee performance.

Scope

The scope covers the following :

- Analyse activity-wise operational performance
- Improve Employee Performance
- Provide leadership and direction

Elements and Performance Criteria

Analyse activity-wise operational performance

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

PC1. Analyse activity-related performance metrics.

PC2. Review output reports for escalated cases to identify reasons.

PC3. Examine asset utilisation rates and revenue per workforce.

PC4. Analyse reasons for non-performance concerning each operation and department.

PC5. Analyse the trends of various output metrics like average time per case, average number of delays per week, defaults, etc., along with their reasoning, to measure operational performance.

PC6. Identify process improvement areas and training needs.

PC7. Ensure development and implementation of training plans according to needs.

PC8. Analyse resource utilisation trends to arrive at cases of under-utilisation and poor equipment management.

PC9. Develop and implement strategic action plans to increase overall worker and operational efficiency.

Improve Employee Performance

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

PC10. Confirm that the training needs of new hires, existing workforce, and supervisory staff are identified.

PC11. Ensure that the training calendar and content are prepared to address the training needs and are followed by the L&D team.

PC12. Identify the underperforming departments and staffs and take necessary actions to improve performance.

PC13. Track regular performance output concerning set goals and take corrective actions.

PC14. Establish key performance indicators and conduct performance appraisals for the team on a half-yearly/yearly basis to ensure that KRA/goals that are mutually agreed upon have been met.

PC15. Drive Performance Improvement Plans (PIP) for underperforming employees.

PC16. Address all employee performance problems promptly and directly per personnel policies.

PC17. Take necessary action in case of unethical practices, theft or fiddling with the goods.

Provide leadership and direction

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

PC18. Organise seminars and workshops that focus on recent developments in crisis management that are not covered in planned training.

PC19. Develop, implement, and manage departmental policies, procedures, standards and strategies as required.

PC20. Set objectives and guide and support team members in achieving them.

PC21. Communicate and emphasise policies and standards in line with the regulations laid down by various governing Acts.

PC22. Meet with staff to assess the group's overall performance, discuss ideas for improvement and update them on new developments.

PC23. Collaborate with HR to manage the recruitment and selection, induction/onboarding process, and probation of new hires.

PC24. Resolve all people management issues and challenges per established HR policies.

PC25. Coach and mentor new/existing employees continuously.

PC26. Recognise outstanding performers and create a robust reward and recognition system with HR & senior management.

PC27. Participate in any committees constituted by the organisation to look into issues of indiscipline/misconduct/misappropriation through departmental enquiries.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Vision, mission and values of the Company.

KU2. Company's policy on business ethics and code of conduct.

KU3. Business and performance of the Company.

KU4. Knowledge repository and various projects done by the Company.

KU5. Reporting structure to support and expedite project activities.

KU6. Escalation matrix for reporting issues/challenges.

KU7. Company's policy and work instructions on quality standards.

KU8. Company's personnel management and incentives rules.

KU9. Importance of the individual's role in the workflow.

KU10. Company policy defined turnaround time (TATs) and output metrics for daily operations.

KU11. Company's approach towards skill up-gradation and technology modernisation.

KU12. The Company's training plans and schedules.

KU13. Process flow of service operations, value chain and basic supply chain map within the sub-sector.

KU14. State/country taxes and routing.

KU15. Local and global geographical knowledge.

KU16. Use of enterprise resource planning software (ERP).

KU17. Use various documentation tools: MS Excel and MS Word, etc.

KU18. Basics of statistical and quantitative analysis tools.

KU19. Use of spreadsheets to tabulate and analyse the data.

KU20. Structure and implications of fees involved in transportation, warehousing, etc.

KU21. Transit rules and regulations.

KU22. Significance of team coordination to achieve revenue and productivity targets of the organisation.

KU23. Customer relationship management, contract management, and service level agreement (SLA).

KU24. Factors for evaluation of operational performance and utilisation of resources.

KU25. Different metrics of performance evaluation.

KU26. Different solutions to improve performance and utilisation.

Generic Skills (GS)

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

GS1. Company policy and standard work-related documents.

GS2. Emails, letters and instructions.

GS3. Daily reports.

GS4. Prepare reports on delivery performance, demand forecast, franchisee performance, etc.

GS5. Write Minutes of Meetings, emails and memos.

GS6. Interact with team members to work efficiently.

GS7. Communicate effectively with colleagues and vendors to achieve smooth workflow.

GS8. Communicate quality standards and performance metrics clearly to all the employees.

GS9. Listen to queries patiently and answer them aptly.

GS10. Plan and organise performance review session.

GS11. Make an action plan for performance improvement.

GS12. Organise projects/ training plans for performance improvement.

GS13. Monitor the activities of the performance improvement plan.

GS14. Plan and organise monitoring activities to ensure no breach in terms of commitments.

GS15. Timely complete analysis of reports and issues identified.

GS16. Analyse performance with a focus on customer requirements and ability to improve satisfaction levels with customers.

GS17. Sensitise individuals towards customer satisfaction and train them accordingly.

GS18. Resolve interpersonal issues among employees.

GS19. Resolve performance bottlenecks concerning individuals and resources.

GS20. Guide staff towards appropriate training to improve performance and remove bottlenecks.

GS21. Assess resource utilisation and performance and suggest solutions to remove bottlenecks.

GS22. Analyse reports and take necessary action.

GS23. Analyse output and delivery performance to infer bottlenecks.

GS24. Assess the performance of resources to see capacity utilisation.

GS25. Assess performance to see if there is a need for technology up-gradation or training.

GS26. Improve work processes by adopting global best practices.

GS27. Resolve recurring inter-personal or system related conflicts with colleagues that hinder service.

GS28. Act upon constructively on any problems as pointed out by seniors.

GS29. Review performance concerning requirements and compare with global peers to see prospects for technology and skill up-gradation.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Analyse activity-wise operational performance	**12**	**24**	**-**	**2.5**
PC1. Analyse activity-related performance metrics.	2	4	-	0.5
PC2. Review output reports for escalated cases to identify reasons.	2	4	-	-
PC3. Examine asset utilisation rates and revenue per workforce.	2	4	-	0.5
PC4. Analyse reasons for non-performance concerning each operation and department.	1	2	-	-
PC5. Analyse the trends of various output metrics like average time per case, average number of delays per week, defaults, etc., along with their reasoning, to measure operational performance.	1	2	-	0.5
PC6. Identify process improvement areas and training needs.	1	2	-	-
PC7. Ensure development and implementation of training plans according to needs.	1	2	-	0.5
PC8. Analyse resource utilisation trends to arrive at cases of under-utilisation and poor equipment management.	1	2	-	-
PC9. Develop and implement strategic action plans to increase overall worker and operational efficiency.	1	2	-	0.5
Improve Employee Performance	**8**	**16**	**-**	**2.5**
PC10. Confirm that the training needs of new hires, existing workforce, and supervisory staff are identified.	1	2	-	0.5
PC11. Ensure that the training calendar and content are prepared to address the training needs and are followed by the L&D team.	1	2	-	-
PC12. Identify the underperforming departments and staffs and take necessary actions to improve performance.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. Track regular performance output concerning set goals and take corrective actions.	1	2	-	-
PC14. Establish key performance indicators and conduct performance appraisals for the team on a half-yearly/yearly basis to ensure that KRA/goals that are mutually agreed upon have been met.	1	2	-	0.5
PC15. Drive Performance Improvement Plans (PIP) for underperforming employees.	1	2	-	-
PC16. Address all employee performance problems promptly and directly per personnel policies.	1	2	-	0.5
PC17. Take necessary action in case of unethical practices, theft or fiddling with the goods.	1	2	-	0.5
Provide leadership and direction	**10**	**20**	**-**	**5**
PC18. Organise seminars and workshops that focus on recent developments in crisis management that are not covered in planned training.	1	2	-	0.5
PC19. Develop, implement, and manage departmental policies, procedures, standards and strategies as required.	1	2	-	0.5
PC20. Set objectives and guide and support team members in achieving them.	1	2	-	0.5
PC21. Communicate and emphasise policies and standards in line with the regulations laid down by various governing Acts.	1	2	-	0.5
PC22. Meet with staff to assess the group's overall performance, discuss ideas for improvement and update them on new developments.	1	2	-	0.5
PC23. Collaborate with HR to manage the recruitment and selection, induction/onboarding process, and probation of new hires.	1	2	-	0.5
PC24. Resolve all people management issues and challenges per established HR policies.	1	2	-	0.5
PC25. Coach and mentor new/existing employees continuously.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. Recognise outstanding performers and create a robust reward and recognition system with HR & senior management.	1	2	-	0.5
PC27. Participate in any committees constituted by the organisation to look into issues of indiscipline/misconduct/misappropriation through departmental enquiries.	1	2	-	0.5
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9914
NOS Name	Manage operations and Employee Performance
Sector	Logistics
Sub-Sector	
Occupation	Generic
NSQF Level	6
Credits	2
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

LSC/N9603: Profit and Loss account management and cost accounting

Description

This unit is about about Profit and loss account management and cost accounting

Scope

The scope covers the following :

- Profit and loss account management
- Analyse and minimise activity based costs

Elements and Performance Criteria

Profit and Loss account management

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

PC1. Review department-wise budgets and make amendments if required.

PC2. Regularly track actual performance against budgeted figures to forecast future financial trends.

PC3. Collate and prepare annual budgets along with sales and profit targets.

PC4. Manage expenses carefully to ensure profitability by identifying and minimising waste.

PC5. Assess different revenue streams and find growth opportunities, such as pricing strategies or exploring new markets.

PC6. Review direct and indirect costs regularly to identify areas for cost reduction without impacting product quality or customer satisfaction.

PC7. Use ratios such as gross profit margin, operating margin, and net profit margin to evaluate financial performance and guide decision-making.

PC8. Schedule both capital and operational expenses following the budget.

PC9. Analyse and review the unit's overall P&L performance.

PC10. Analyse profitability and business performance trends department-wise.

PC11. Periodically analyse expenditure variances concerning the budget and the budget's physical output and performance.

PC12. Identify improvement areas and accordingly take corrective actions.

PC13. Undertake adequate risk management to meet Key Performance targets.

PC14. Manage and control budgets of different departments periodically to optimise financial performance.

PC15. Use Software like QuickBooks, Xero, or SAP to automate P&L generation and track real-time data.

Analyse and minimise activity-based costs

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

PC16. Periodically review activity and department financial performance.

PC17. Ensure Proper allocation of overhead costs to various products or services to comprehend their true cost and profitability.

PC18. Regularly track variances from standard or budgeted costs to identify inefficiencies and implement corrective actions.

PC19. Perform Break-Even Analysis to calculate the point at which total revenues equal total costs (no profit or loss).

PC20. Perform a Cost-Volume-Profit (CVP) Analysis to examine the relationships between cost, volume, and profit to analyse how changes in sales and costs affect profitability.

PC21. Use cost data to establish pricing strategies that ensure profitability while remaining competitive.

PC22. Efficiently manage inventory to minimise carrying costs, avoid stockouts, and prevent overproduction.

PC23. Analyse the actual cost w.r.t physical output to draw inferences.

PC24. Identify reasons in discussion with the department and take remedial and corrective actions wherever required.

PC25. Work towards rationalising the cost of the activity-wise operations to achieve higher financial goals.

PC26. Use Tools like Sage, Oracle NetSuite, and Microsoft Dynamics NAV to track and allocate costs.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Vision, mission and values of the company.

KU2. Company reporting structure to support and expedite project activities.

KU3. Company policy and work instructions on quality standards, as well as documentation policy.

KU4. Importance of the individual's role in the workflow.

KU5. company's policy on business ethics and code of conduct.

KU6. Business and performance of the company.

KU7. Knowledge repository and various projects done by the company.

KU8. Occupational health and safety standards, special and dangerous goods handling, etc.

KU9. Procedures for dealing with loss or damage to goods.

KU10. Value of items handled and implications of damage/loss of the same.

KU11. Risk and impact of not following defined work, safety and security procedures.

KU12. Company policy defined TATs and output metrics for daily operations.

KU13. Knowledge of using Excel for cost tracking.

KU14. IT system and ERP system of the organisation.

KU15. Organisational goal for the year, as well as branch/ territory targets.

KU16. Process flow of service operation and understanding of basic supply chain value chain.

KU17. State/country taxes and routing.

KU18. Local and global geographies.

KU19. Use of enterprise resource planning software (ERP) and the MIS.

KU20. Use of tools for documentation: MS Excel and MS Word, etc.

KU21. Basics of statistical and quantitative analysis tools.

KU22. Use of spreadsheets to tabulate and analyse the data.

KU23. Structure and implications of fees and charges involved in transportation, warehousing, processing clearances, etc.

KU24. Transit rules and regulations.

KU25. Budgeting exercises and Legal policies and regulations.

KU26. Procurement-related concepts like Purchase order (PO), Invoices, procedures etc.

KU27. Significance of team coordination to achieve revenue and productivity targets of the organisation.

KU28. Various techniques for performance improvement and cost accounting Knowledge of SOPs and documents required for all operational activities.

Generic Skills (GS)

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

GS1. Ability to interpret the company's work instructions, Internal communications memorandums, customer requirements and quality policy.

GS2. Sensitise employees towards customer requirements.

GS3. Ability to Develop operating procedures and update them.

GS4. Ability to write instructions, documents and standard operating procedures.

GS5. Focus on customer satisfaction as a key part of the performance review.

GS6. Ability to Draw Inferences from the system reports and financial statements.

GS7. Identify reasons for variances and resolve them in discussion with the team and management.

GS8. Ability to Maintain records as per company policy.

GS9. Compare with past trends to see if it is seasonal or cyclical.

GS10. Identify areas that are crucial for improvement and accordingly revisit budgets.

GS11. Write communications, letters, etc.

GS12. Prepare daily reports, checklists and presentations based on data analytics and ERP reports.

GS13. Communicate with clients, external coordinators, and internal staff effectively.

GS14. Ability to motivate employees.

GS15. Share experiences and guide juniors and peers.

GS16. Assess business performance to identify the need for interventions.

GS17. Identify areas for improvement and accordingly suggest remedial action

GS18. Identify areas for budget modifications and budget cuts.

GS19. Decide on ways to improve performance.

GS20. Plan and organise performance review sessions.

GS21. Make an action plan for performance improvement.

GS22. Organise projects/ training plans for performance improvement.

GS23. Suggest new technologies, capital purchases, and operational strategies to enhance operational and financial performance.

GS24. Analyse reasons for variances across departments.

GS25. Assess the financial performance and make strategic decisions regarding budgets, focus areas.

GS26. Motivate and ensure output to achieve financial goals.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Profit and Loss account management	**19**	**38**	**-**	**7**
PC1. Review department-wise budgets and make amendments if required.	2	4	-	0.5
PC2. Regularly track actual performance against budgeted figures to forecast future financial trends.	2	4	-	0.5
PC3. Collate and prepare annual budgets along with sales and profit targets.	2	4	-	0.5
PC4. Manage expenses carefully to ensure profitability by identifying and minimising waste.	2	4	-	0.5
PC5. Assess different revenue streams and find growth opportunities, such as pricing strategies or exploring new markets.	1	2	-	0.5
PC6. Review direct and indirect costs regularly to identify areas for cost reduction without impacting product quality or customer satisfaction.	1	2	-	0.5
PC7. Use ratios such as gross profit margin, operating margin, and net profit margin to evaluate financial performance and guide decision-making.	1	2	-	0.5
PC8. Schedule both capital and operational expenses following the budget.	1	2	-	0.5
PC9. Analyse and review the unit's overall P&L performance.	1	2	-	0.5
PC10. Analyse profitability and business performance trends department-wise.	1	2	-	0.5
PC11. Periodically analyse expenditure variances concerning the budget and the budget's physical output and performance.	1	2	-	0.5
PC12. Identify improvement areas and accordingly take corrective actions.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. Undertake adequate risk management to meet Key Performance targets.	1	2	-	0.5
PC14. Manage and control budgets of different departments periodically to optimise financial performance.	1	2	-	-
PC15. Use Software like QuickBooks, Xero, or SAP to automate P&L generation and track real-time data.	1	2	-	0.5
Analyse and minimise activity-based costs	**11**	**22**	**-**	**3**
PC16. Periodically review activity and department financial performance.	1	2	-	0.5
PC17. Ensure Proper allocation of overhead costs to various products or services to comprehend their true cost and profitability.	1	2	-	-
PC18. Regularly track variances from standard or budgeted costs to identify inefficiencies and implement corrective actions.	1	2	-	0.5
PC19. Perform Break-Even Analysis to calculate the point at which total revenues equal total costs (no profit or loss).	1	2	-	-
PC20. Perform a Cost-Volume-Profit (CVP) Analysis to examine the relationships between cost, volume, and profit to analyse how changes in sales and costs affect profitability.	1	2	-	0.5
PC21. Use cost data to establish pricing strategies that ensure profitability while remaining competitive.	1	2	-	-
PC22. Efficiently manage inventory to minimise carrying costs, avoid stockouts, and prevent overproduction.	1	2	-	0.5
PC23. Analyse the actual cost w.r.t physical output to draw inferences.	1	2	-	-
PC24. Identify reasons in discussion with the department and take remedial and corrective actions wherever required.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC25. Work towards rationalising the cost of the activity-wise operations to achieve higher financial goals.	1	2	-	-
PC26. Use Tools like Sage, Oracle NetSuite, and Microsoft Dynamics NAV to track and allocate costs.	1	2	-	0.5
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9603
NOS Name	Profit and Loss account management and cost accounting
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	5
Credits	2
Version	3.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

LSC/N0111: Support in warehouse layout design

Description

This unit is about support in warehouse design.

Scope

The scope covers the following :

- Assist in warehouse design

Elements and Performance Criteria

Assist in warehouse design

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

PC1. Identify the type of products and volume to be stored in the warehouse - palletised Fast Moving Consumer Goods (FMCG) products, electronics and appliances, automotive and assembly line products, bulk cargo, etc.

PC2. Classify the warehouse's purpose, such as storage, distribution, order fulfilment, etc.

PC3. Estimate the required size of the warehouse based on expected inventory levels and throughput (incoming and outgoing goods) with future scalability.

PC4. Define specific goals such as improving pick times, reducing labour costs, optimising space utilisation, or automating processes.

PC5. Create a Floor Plan Design that allows for efficient operations and flow of goods.

PC6. Ensure the warehouse design allows for smooth movement of goods without unnecessary backtracking or congestion.

PC7. Plan for logical pathways between the receiving, storage, picking, and shipping areas to reduce handling time.

Design aisles and bays that balance space utilisation with efficient movement of goods.

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

PC8. Design the process layout based on the storage requirement of each type of product and for optimum utilisation of Material Handling Equipment (MHE) usage

PC9. Ensure stock of fast-moving goods is placed near the loading and unloading bays and slow-moving products at higher levels

PC10. Design the warehouse layout with flexibility and future scalability in mind

PC11. Ensure different categories of items have separate areas for storage and retrieval

PC12. Ensure the hazardous goods storage area meets the storage standard operating procedure (SOP) requirement.

PC13. Map process flow routes for the movement of equipment and personnel within the warehouse

PC14. Coordinate with the technology team in warehouse design and test-run

PC15. Evaluate the technology feasibility of the proposed design

PC16. Ensure that the layout and design comply with Safety regulations.

PC17. Assist top management with performance reporting of new designs/processes

PC18. Be instrumental during the construction, erection and commissioning of the warehouse and provide the necessary inputs

PC19. Implement technologies and methodologies like WMS, RFID/Barcode Technology, Automated Picking, Data Analytics, etc., to manage inventory, track goods, and optimise workflows.

PC20. Integrate Sustainability Considerations like Energy-Efficient Lighting, Green Building Design, Waste Management, etc.

PC21. Designate clear emergency exits and routes for evacuations in case of emergencies.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. organizational process and procedures

KU2. role and responsibilities of workers on the shop floor

KU3. procedures for dealing with loss or damage to goods

KU4. risk and impact of not following defined procedures/work instructions

KU5. nature and characteristics of components in the warehouse

KU6. all relevant safety and security procedures

KU7. entire shop floor activities and persons in charge of each function

KU8. coding system being used by the organization for labelling

KU9. SOPs and how to react in emergencies

KU10. all activities being done in a warehouse

KU11. packing materials and labels that can be used for components of different products and onto each kits

KU12. types of workplace hazards that one can encounter on the job and safe operating practices

KU13. technical specifications of goods in the warehouse

KU14. basics of different types of inventory count methods, inventory storage methods, etc.

KU15. possible difficulties in each warehousing activity and minor oprerational fixes for these difficulties

KU16. different operating and financing models present in the transport and warehousing domains

KU17. basics of different types of products, their estimated shelf life for transporting and requirement of type of vehicle for transportation

KU18. reference documents required in the receiving to put away process such as advanced shipping notice, goods consignment notice, purchase order, commercial invoice, transfer order, packing list, quality certificate, goods receipt note, delivery note and gate pass

KU19. reference documents required in the order to despatch process such as despatch order, stock transport order, pick list, labels, packing list, delivery note, permit document, gate pass, goods consignment note and trip sheet

KU20. contract management, service level agreements (SLA) and Statement of Work (SOW)

KU21. enterprise ERP software including Warehouse Management System (WMS), Manufacturing Management Systems (MMS) and Transportation Management Software (TMS)

KU22. tools for documentation: MS excel and MS word

KU23. detailed knowledge of warehouse design and the format of warehouse

KU24. customs rules and regulations

KU25. changes in custom clearance procedures and applicable duties

Generic Skills (GS)

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

GS1. Ability to create contingency plans and SOPs.

GS2. Make realistic day plans for each activity and Translate plans into targets

GS3. Monitor the smooth functioning of all activities

GS4. Prioritize and execute tasks within the scheduled time limits

GS5. Read and interpret regulatory requirements associated with customs clearance

GS6. Write reports to the staff, senior management, and the board of directors

GS7. Write the monthly evaluation or a situation analysis and recommendations

GS8. Maintain the record as per company policies

GS9. Communicate clearly in the local language or English with management and staff.

GS10. Provide advice and guidance to peers & juniors

GS11. Communicate with clients, customs officials and staff using a variety of communication devices and medium

GS12. Judge the quality of goods

GS13. Identify components required to make a product

GS14. Decide on actions to be taken on escalation raised by the customer

GS15. Decide about staffing requirement and estimate time required for each activity.

GS16. Liaison with staff, transporters and customs authorities

GS17. Re-assess the schedule in case of delays/additional orders

GS18. Comprehend the customer timelines and ensure that they are met

GS19. Prevent company and customer information leakage

GS20. Ability to rapidly identify and correct errors

GS21. Suggest methods to improve warehousing activities

GS22. Analyse communication patterns with colleagues and customers to improve outcomes and deal with situations

GS23. Improve work processes by interacting with others and adopting best practices

GS24. Act upon constructively on any problems as pointed out by customers or superiors

GS25. Identify trends/common causes for errors and suggest possible solutions to management

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Assist in warehouse design	**11**	**21**	**-**	**5**
PC1. Identify the type of products and volume to be stored in the warehouse - palletised Fast Moving Consumer Goods (FMCG) products, electronics and appliances, automotive and assembly line products, bulk cargo, etc.	2	3	-	1
PC2. Classify the warehouse's purpose, such as storage, distribution, order fulfilment, etc.	2	3	-	-
PC3. Estimate the required size of the warehouse based on expected inventory levels and throughput (incoming and outgoing goods) with future scalability.	2	3	-	1
PC4. Define specific goals such as improving pick times, reducing labour costs, optimising space utilisation, or automating processes.	2	3	-	1
PC5. Create a Floor Plan Design that allows for efficient operations and flow of goods.	1	3	-	1
PC6. Ensure the warehouse design allows for smooth movement of goods without unnecessary backtracking or congestion.	1	3	-	1
PC7. Plan for logical pathways between the receiving, storage, picking, and shipping areas to reduce handling time.	1	3	-	-
Design aisles and bays that balance space utilisation with efficient movement of goods.	**19**	**39**	**-**	**5**
PC8. Design the process layout based on the storage requirement of each type of product and for optimum utilisation of Material Handling Equipment (MHE) usage	1	3	-	1
PC9. Ensure stock of fast-moving goods is placed near the loading and unloading bays and slow-moving products at higher levels	2	3	-	-
PC10. Design the warehouse layout with flexibility and future scalability in mind	1	3	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. Ensure different categories of items have separate areas for storage and retrieval	2	3	-	-
PC12. Ensure the hazardous goods storage area meets the storage standard operating procedure (SOP) requirement.	1	3	-	1
PC13. Map process flow routes for the movement of equipment and personnel within the warehouse	1	3	-	-
PC14. Coordinate with the technology team in warehouse design and test-run	1	3	-	-
PC15. Evaluate the technology feasibility of the proposed design	1	3	-	-
PC16. Ensure that the layout and design comply with Safety regulations.	2	3	-	-
PC17. Assist top management with performance reporting of new designs/processes	1	3	-	-
PC18. Be instrumental during the construction, erection and commissioning of the warehouse and provide the necessary inputs	2	2	-	1
PC19. Implement technologies and methodologies like WMS, RFID/Barcode Technology, Automated Picking, Data Analytics, etc., to manage inventory, track goods, and optimise workflows.	1	2	-	-
PC20. Integrate Sustainability Considerations like Energy-Efficient Lighting, Green Building Design, Waste Management, etc.	2	3	-	1
PC21. Designate clear emergency exits and routes for evacuations in case of emergencies.	1	2	-	-
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0111
NOS Name	Support in warehouse layout design
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations
NSQF Level	6
Credits	2
Version	3.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2030
NSQC Clearance Date	07/10/2025

LSC/N0139: Optimise and continuously improve warehouse operations

Description

This unit is about support in warehouse design.

Scope

The scope covers the following :

- Optimise warehouse operations
- Optimise Warehouse Layout and Flow
- Implement Continuous Improvement and sustainability.

Elements and Performance Criteria

Optimise warehouse operations

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

PC1. Execute Lean Principles like Value Stream Mapping, 5S, Kanban System and Kaizen to Eliminate waste, streamline processes, and improve efficiency.

PC2. Implement Technology and Automation such as Automated Storage and Retrieval Systems (AS/RS), WMS, Pick-to-Light / Voice Picking, AGVs, etc., to increase efficiency, reduce errors, and improve inventory management.

PC3. Classify products into A, B, and C categories based on their sales volume and store high-demand (A) items near the picking area to reduce picking time.

PC4. Perform regular cycle counts instead of full physical inventories to maintain accurate inventory levels and reduce the impact on daily operations.

PC5. Use historical data, sales trends, and market analysis to predict demand and adjust inventory levels accordingly.

PC6. Implement automatic reordering systems based on predefined thresholds to avoid stockouts while minimising excess inventory.

PC7. Assign specific tasks (e.g., receiving, picking, packing) to specialised workers to reduce time spent switching between tasks.

PC8. Implement demand-based labour scheduling to ensure the right number of workers are available during peak hours and reduce labour costs during off-peak hours.

PC9. Apply key performance indicators (KPIs) like picking accuracy, order cycle time, and inventory turnover to measure performance and identify areas for improvement.

PC10. Use algorithms or WMS systems to optimise the picking path and minimise travel time within the warehouse.

PC11. Implement software that helps optimise shipping routes, calculate optimal packaging sizes, and compare carrier rates to reduce transportation costs.

Optimise Warehouse Layout and Flow

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

PC12. Organise products in the warehouse based on demand (ABC analysis), ensuring fast-moving items are easily accessible and slow-moving items are stored further away.

PC13. Implement a flexible slotting system that adjusts based on seasonal demand, sales trends, or inventory changes.

PC14. Optimise aisle width based on equipment (e.g., narrow aisles for forklifts, wider aisles for manual picking).

PC15. Use drive-in racking or high-bay shelving for low-demand or large-volume items.

PC16. Optimise the racking by maximising the vertical storage space, e.g., using Selective Pallet Racks, Push-Back Racks, or adding Mezzanine Floors.

PC17. Ensure cross-aisles connect different zones and reduce travel time.

PC18. Minimise backtracking or unnecessary movement by planning for a one-way flow of goods (receiving → storage → picking → packing → shipping).

Implement Continuous Improvement and sustainability

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

PC19. Empower workers to suggest small, actionable changes to improve their work environment.

PC20. Conduct regular audits to assess warehouse performance, identify bottlenecks, and evaluate efficiency.

PC21. Track KPIs to gauge improvement using data-driven metrics.

PC22. Use tools like Pareto Analysis, Fishbone Diagrams, or 5 Whys to identify the root causes of inefficiencies or issues and take corrective action.

PC23. Compare your warehouse operations with industry best practices or competitors to identify areas where you can improve.

PC24. Train employees regularly on safety protocols, proper equipment handling, and emergency procedures to reduce accidents.

PC25. Continuously track performance and make data-driven decisions for further optimisation.

PC26. Create standard operating procedures (SOPs) to ensure consistency and improve efficiency across the warehouse.

PC27. Ensure continuous improvement efforts remain aligned with changing business needs and warehouse operations.

PC28. Choose energy-efficient lighting (sodium lights or high-frequency fluorescents) and recommend installing skylights, LEDs with sensors (intelligent occupancy sensors, motion sensors, heat maps), etc.

PC29. Use machinery and equipment like MHE that runs on electric or alternative clean energy.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Organisational process and procedures.

KU2. Role and responsibilities of workers in the shop floor.

KU3. Knowledge about BDPs (Best Demonstrated Practices) followed by competitors.

KU4. Risk and impact of not following defined procedures/ work instructions.

KU5. Nature and characteristics of components in the warehouse.

KU6. All relevant safety and security procedures.

KU7. Entire shop floor activities and persons in charge of each function.

KU8. Knowledge about Continuous Improvement Culture (CIC).

KU9. SOPs and how to react in emergencies.

KU10. Market intelligence and risks associated with continuous improvement.

KU11. Various analyses such as Root Cause Analysis (RCA), 5 Whys, Fishbone Diagram, Pareto Analysis.

KU12. Types of workplace hazards that one can encounter on the job and safe operating practices.

KU13. Technical specifications of goods in the warehouse.

KU14. Knowledge about Lean Principles such as 5S Methodology, Value Stream Mapping, Kaizen, Kanban, etc.

KU15. Possible difficulties in each warehousing activity and minor organisational fixes for these difficulties.

KU16. Different operating and financing models present in the transport and warehousing domains.

KU17. Warehousing methods and strategies such as just-in-time (JIT), First in First Out (FIFO), Last in First out (LIFO) etc.

KU18. Knowledge of various racking and storage systems used in warehouses.

KU19. Knowledge of the latest technology, automation and software used in warehouses.

KU20. Contract management, service level agreements (SLA) and Statement of Work (SOW).

KU21. Enterprise ERP software, including Warehouse Management Systems (WMS), Manufacturing Management Systems (MMS) and Transportation Management Software (TMS).

KU22. Tools for documentation: MS Excel and MS Word.

KU23. Detailed knowledge of warehouse design and the format of the warehouse.

Generic Skills (GS)

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

GS1. Ability to create contingency plans and SOPs.

GS2. Make realistic day plans for each activity and Translate plans into targets.

GS3. Monitor the smooth functioning of all activities.

GS4. Prioritise and execute tasks within the scheduled time limits.

GS5. Ability to address the underlying issue rather than just the visible symptoms.

GS6. Write reports to the staff, senior management, and the board of directors.

GS7. Write the monthly evaluation or a situation analysis and recommendations.

GS8. Maintain the record as per company policies.

GS9. Foster an environment where every employee understands and embraces the idea of ongoing improvement.

GS10. Provide advice and guidance to peers & juniors.

GS11. Ability to create and monitor KPIs.

GS12. Ability to Perform various analyses such as Root Cause Analysis (RCA), 5 Whys, Fishbone Diagram, Pareto Analysis.

GS13. Ability to Foster Innovation and Experimentation.

GS14. Accommodate continuous improvement with changing business needs and warehouse operations.

GS15. Decide about staffing requirements and estimate the time required for each activity.

GS16. Liaison with staff, transporters and customs authorities.

GS17. Re-assess the schedule in case of delays/additional orders.

GS18. Skill to Create and implement standard operating procedures (SOPs).

GS19. Prevent company and customer information leakage.

GS20. Ability to rapidly identify and correct errors.

GS21. Suggest methods to improve warehousing activities.

GS22. Analyse communication patterns with colleagues and customers to improve outcomes and deal with situations.

GS23. Improve work processes by interacting with others and adopting best practices.

GS24. Act upon constructively on any problems as pointed out by customers or superiors.

GS25. Identify trends/common causes for errors and suggest possible solutions to management.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Optimise warehouse operations	**11**	**22**	**-**	**3**
PC1. Execute Lean Principles like Value Stream Mapping, 5S, Kanban System and Kaizen to Eliminate waste, streamline processes, and improve efficiency.	1	2	-	0.5
PC2. Implement Technology and Automation such as Automated Storage and Retrieval Systems (AS/RS), WMS, Pick-to-Light / Voice Picking, AGVs, etc., to increase efficiency, reduce errors, and improve inventory management.	1	2	-	-
PC3. Classify products into A, B, and C categories based on their sales volume and store high-demand (A) items near the picking area to reduce picking time.	1	2	-	0.5
PC4. Perform regular cycle counts instead of full physical inventories to maintain accurate inventory levels and reduce the impact on daily operations.	1	2	-	-
PC5. Use historical data, sales trends, and market analysis to predict demand and adjust inventory levels accordingly.	1	2	-	0.5
PC6. Implement automatic reordering systems based on predefined thresholds to avoid stockouts while minimising excess inventory.	1	2	-	-
PC7. Assign specific tasks (e.g., receiving, picking, packing) to specialised workers to reduce time spent switching between tasks.	1	2	-	0.5
PC8. Implement demand-based labour scheduling to ensure the right number of workers are available during peak hours and reduce labour costs during off-peak hours.	1	2	-	-
PC9. Apply key performance indicators (KPIs) like picking accuracy, order cycle time, and inventory turnover to measure performance and identify areas for improvement.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. Use algorithms or WMS systems to optimise the picking path and minimise travel time within the warehouse.	1	2	-	-
PC11. Implement software that helps optimise shipping routes, calculate optimal packaging sizes, and compare carrier rates to reduce transportation costs.	1	2	-	0.5
Optimise Warehouse Layout and Flow	**7**	**14**	**-**	**2**
PC12. Organise products in the warehouse based on demand (ABC analysis), ensuring fast-moving items are easily accessible and slow-moving items are stored further away.	1	2	-	0.5
PC13. Implement a flexible slotting system that adjusts based on seasonal demand, sales trends, or inventory changes.	1	2	-	-
PC14. Optimise aisle width based on equipment (e.g., narrow aisles for forklifts, wider aisles for manual picking).	1	2	-	0.5
PC15. Use drive-in racking or high-bay shelving for low-demand or large-volume items.	1	2	-	-
PC16. Optimise the racking by maximising the vertical storage space, e.g., using Selective Pallet Racks, Push-Back Racks, or adding Mezzanine Floors.	1	2	-	0.5
PC17. Ensure cross-aisles connect different zones and reduce travel time.	1	2	-	-
PC18. Minimise backtracking or unnecessary movement by planning for a one-way flow of goods (receiving → storage → picking → packing → shipping).	1	2	-	0.5
Implement Continuous Improvement and sustainability	**12**	**24**	**-**	**5**
PC19. Empower workers to suggest small, actionable changes to improve their work environment.	1	2	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC20. Conduct regular audits to assess warehouse performance, identify bottlenecks, and evaluate efficiency.	1	2	-	-
PC21. Track KPIs to gauge improvement using data-driven metrics.	1	2	-	0.5
PC22. Use tools like Pareto Analysis, Fishbone Diagrams, or 5 Whys to identify the root causes of inefficiencies or issues and take corrective action.	1	2	-	0.5
PC23. Compare your warehouse operations with industry best practices or competitors to identify areas where you can improve.	1	2	-	0.5
PC24. Train employees regularly on safety protocols, proper equipment handling, and emergency procedures to reduce accidents.	1	2	-	0.5
PC25. Continuously track performance and make data-driven decisions for further optimisation.	1	2	-	0.5
PC26. Create standard operating procedures (SOPs) to ensure consistency and improve efficiency across the warehouse.	1	2	-	0.5
PC27. Ensure continuous improvement efforts remain aligned with changing business needs and warehouse operations.	1	2	-	0.5
PC28. Choose energy-efficient lighting (sodium lights or high-frequency fluorescents) and recommend installing skylights, LEDs with sensors (intelligent occupancy sensors, motion sensors, heat maps), etc.	1	2	-	0.5
PC29. Use machinery and equipment like MHE that runs on electric or alternative clean energy.	2	4	-	0.5
NOS Total	**30**	**60**	**-**	**10**

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0139
NOS Name	Optimise and continuously improve warehouse operations
Sector	Logistics
Sub-Sector	
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	3
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

LSC/N9911: Follow health, safety, security procedures and maintain integrity, ethics at workplace

Description

This unit deals in detail with application of health, safety, security procedures at workplace and maintaining integrity, ensuring data security, professional and ethical practice.

Scope

The scope covers the following :

- Follow health, safety and security measures during all activities
- Maintain a healthy and hygienic workplace
- Handle emergency situations
- Maintain integrity and ensure data security
- Professional and ethical practice
- Ensure regulatory compliance

Elements and Performance Criteria

Follow health, safety and security measures during all activities

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

PC1. Comply with safety regulations and procedures to avoid fire hazards, biohazards, etc.

PC2. Wear all safety equipment including protective gear, helmets etc., in relevant bay areas.

PC3. Follow organisation procedures concerning documentation.

PC4. Recognise unsafe workplace conditions and safety practices and report them to concerned authorities.

Maintain a healthy and hygienic workplace

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

PC5. Ensure that the work area and supplies are organised and cleaned regularly.

PC6. Comply with data safety regulations of the organisation and follow clear worktable area policy.

PC7. Maintain personal hygiene and wash hands regularly using soap and water or alcohol-based sanitizer.

PC8. Undertake periodical preventive health check-ups.

PC9. Participate in fire drills and follow 5S at workplace.

Handle emergency situations

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

PC10. Act immediately during emergencies and move to safety.

PC11. Provide first aid to affected victims e.g., in case of bleeding, burns, choking, electric shock, poisoning etc.

PC12. In case of fire, follow fire safety practices taught during fire drills.

PC13. Follow procedures to rescue victims of fire without endangering self.

Maintain integrity and ensure data security

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

PC14. Refrain from indulging in corrupt practices.

PC15. Protect customers' information and ensure acquired information is not used for personal advantage.

PC16. Protect data and information related to business or commercial decisions.

Professional and ethical practice

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

PC17. Sensitize the workforce towards ethical behaviour in the workplace and performing jobs with integrity.

PC18. Conduct regular reviews, check reports for unethical behaviour and corrupt practices and promptly report all violations of the code of ethics.

PC19. Consult senior management when in an ethical dilemma.

Ensure regulatory compliance

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

PC20. Check that documentation concerning operations is up to date and in accordance with the regulations.

PC21. Coordinate with regulatory authorities and assist in inspections and clearances.

PC22. Report any issues with regulatory compliance.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Company's policies on the use of language, Human Resources policies, code of ethics and business

KU2. Company's whistle-blower policy and rules related to sexual harassment

KU3. Company's reporting structure and documentation policy

KU4. Principles of code of ethics and business ethics

KU5. Different regulations and acts that are applicable for the sub-sector and logistics sector as a whole

KU6. The documentary compliance required for different type of products for Health Safety and Environment (HSE) practices

KU7. Relevant Occupational Health and Safety (OHS) regulations

KU8. Enterprise /site emergency procedures and techniques

KU9. Procedures for recording, reporting and maintenance of workplace safety and hygiene

KU10. Health and safety hazards commonly present in the work environment and related precautions

KU11. Possible causes of risk, hazard or accident in the workplace

KU12. Where to find all the general health and safety equipment in the workplace

KU13. Various dangers associated with the use of electrical equipment

KU14. Preventative and remedial actions to be taken in the case of exposure to toxic materials

KU15. Importance of using protective clothing/equipment while working

KU16. Various causes of fire and precautionary activities to prevent the fire accident

KU17. Different methods of extinguishing fire and techniques of using the different fire extinguishers

KU18. Rescue techniques applied during a fire hazard and safe lifting and carrying practices

KU19. Various types of safety signs and their meaning

KU20. Appropriate basic first aid treatment relevant to the condition e.g., shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries

Generic Skills (GS)

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

GS1. Read policy documents, work-related documents, various acts and regulations

GS2. Write instructions, communications to internal staff, emails and letters, and reports

GS3. Interact with internal and external stakeholders

GS4. Communicate with peers and subordinates

GS5. Take appropriate action in a vulnerable situation

GS6. Identify breaches and take necessary actions

GS7. Identify the documentary requirement for a specific product or regulation and take necessary action

GS8. Plan and organise steps/ actions as per the company's guidelines, if any violation of the code of ethics is noticed in the company

GS9. Plan and organise training sessions and sensitisation sessions for workforce

GS10. Plan review meetings to monitor compliance with ethics and regulations

GS11. Prevent company and customer information leakage

GS12. Provide proper advice or guidance to colleagues to deal with sensitive issues

GS13. Suggest solutions to managers and workers when in an ethical dilemma

GS14. Identify conflict of interests and take necessary actions

GS15. Review reports to identify common trends of defaults

GS16. Conduct a review to analyse the reasons for the default

GS17. Check that all regulatory compliances are adhered to

GS18. Check that any unethical behaviour gets captured before damage or negative impact happens

GS19. Write Health and safety compliance report

GS20. Interpret general health and safety guidelines

GS21. Communicate general health and safety guidelines to co-workers

GS22. Decide on the corrective action to be taken in case of any potential hazards

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Follow health, safety and security measures during all activities	**6**	**10**	**-**	**2**
PC1. Comply with safety regulations and procedures to avoid fire hazards, biohazards, etc.	1	2	-	-
PC2. Wear all safety equipment including protective gear, helmets etc., in relevant bay areas.	2	3	-	1
PC3. Follow organisation procedures concerning documentation.	1	2	-	-
PC4. Recognise unsafe workplace conditions and safety practices and report them to concerned authorities.	2	3	-	1
Maintain a healthy and hygienic workplace	**5**	**14**	**-**	**3**
PC5. Ensure that the work area and supplies are organised and cleaned regularly.	1	3	-	1
PC6. Comply with data safety regulations of the organisation and follow clear worktable area policy.	1	3	-	-
PC7. Maintain personal hygiene and wash hands regularly using soap and water or alcohol-based sanitizer.	1	2	-	1
PC8. Undertake periodical preventive health check-ups.	1	3	-	1
PC9. Participate in fire drills and follow 5S at workplace.	1	3	-	-
Handle emergency situations	**6**	**9**	**-**	**2**
PC10. Act immediately during emergencies and move to safety.	2	2	-	1
PC11. Provide first aid to affected victims e.g., in case of bleeding, burns, choking, electric shock, poisoning etc.	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. In case of fire, follow fire safety practices taught during fire drills.	2	3	-	-
PC13. Follow procedures to rescue victims of fire without endangering self.	1	2	-	1
Maintain integrity and ensure data security	**4**	**8**	**-**	**-**
PC14. Refrain from indulging in corrupt practices.	2	3	-	-
PC15. Protect customers' information and ensure acquired information is not used for personal advantage.	1	2	-	-
PC16. Protect data and information related to business or commercial decisions.	1	3	-	-
Professional and ethical practice	**4**	**8**	**-**	**1**
PC17. Sensitize the workforce towards ethical behaviour in the workplace and performing jobs with integrity.	1	2	-	-
PC18. Conduct regular reviews, check reports for unethical behaviour and corrupt practices and promptly report all violations of the code of ethics.	2	4	-	1
PC19. Consult senior management when in an ethical dilemma.	1	2	-	-
Ensure regulatory compliance	**5**	**11**	**-**	**2**
PC20. Check that documentation concerning operations is up to date and in accordance with the regulations.	1	3	-	-
PC21. Coordinate with regulatory authorities and assist in inspections and clearances.	2	4	-	1
PC22. Report any issues with regulatory compliance.	2	4	-	1
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9911
NOS Name	Follow health, safety, security procedures and maintain integrity, ethics at workplace
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	6
Credits	1
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

DGT/VSQ/N0103: Employability Skills (90 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

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

PC1. understand the significance of employability skills in meeting the current job market requirement and future of work

PC2. identify and explore learning and employability relevant portals

PC3. research about the different industries, job market trends, latest skills required and the available opportunities

Constitutional values – Citizenship

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

PC4. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.

PC5. follow environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC6. recognize the significance of 21st Century Skills for employment

PC7. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

PC8. adopt a continuous learning mindset for personal and professional development

Basic English Skills

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

PC9. use basic English for everyday conversation in different contexts, in person and over the telephone

PC10. read and understand routine information, notes, instructions, mails, letters etc. written in English

PC11. write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

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

PC12. identify career goals based on the skills, interests, knowledge, and personal attributes

PC13. prepare a career development plan with short- and long-term goals

Communication Skills

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

PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings

PC15. use active listening techniques for effective communication

PC16. communicate in writing using appropriate style and format based on formal or informal requirements

PC17. work collaboratively with others in a team

Diversity & Inclusion

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

PC18. communicate and behave appropriately with all genders and PwD

PC19. escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

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

PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.

PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook

PC22. identify common components of salary and compute income, expenses, taxes, investments etc

PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

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

PC24. operate digital devices and use their features and applications securely and safely

PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.

PC26. display responsible online behaviour while using various social media platforms

PC27. create a personal email account, send and process received messages as per requirement

PC28. carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications

PC29. utilize virtual collaboration tools to work effectively

Entrepreneurship

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

PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research

PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion

PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

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

PC33. identify different types of customers and ways to communicate with them

PC34. identify and respond to customer requests and needs in a professional manner

PC35. use appropriate tools to collect customer feedback

PC36. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC37. create a professional Curriculum vitae (Résumé)

PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC39. apply to identified job openings using offline /online methods as per requirement

PC40. answer questions politely, with clarity and confidence, during recruitment and selection

PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. components of salary and how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account

KU16. use applications such as word processors, spreadsheets etc.

KU17. how to identify business opportunities

KU18. types and needs of customers

KU19. how to apply for a job and prepare for an interview

KU20. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

GS1. read and write different types of documents/instructions/correspondence in English and other languages

GS2. communicate effectively using appropriate language in formal and informal settings

GS3. behave politely and appropriately with all to maintain effective work relationship

GS4. how to work in a virtual mode, using various technological platforms

GS5. perform calculations efficiently

GS6. solve problems effectively

GS7. pay attention to details

GS8. manage time efficiently

GS9. maintain hygiene and sanitization to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	**1**	**1**	**-**	**-**
PC1. understand the significance of employability skills in meeting the current job market requirement and future of work	-	-	-	-
PC2. identify and explore learning and employability relevant portals	-	-	-	-
PC3. research about the different industries, job market trends, latest skills required and the available opportunities	-	-	-	-
Constitutional values – Citizenship	**1**	**1**	**-**	**-**
PC4. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC5. follow environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	**1**	**3**	**-**	**-**
PC6. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC7. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
PC8. adopt a continuous learning mindset for personal and professional development	-	-	-	-
Basic English Skills	**3**	**4**	**-**	**-**
PC9. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC11. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
Career Development & Goal Setting	**1**	**2**	**-**	**-**
PC12. identify career goals based on the skills, interests, knowledge, and personal attributes	-	-	-	-
PC13. prepare a career development plan with short- and long-term goals	-	-	-	-
Communication Skills	**2**	**2**	**-**	**-**
PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings	-	-	-	-
PC15. use active listening techniques for effective communication	-	-	-	-
PC16. communicate in writing using appropriate style and format based on formal or informal requirements	-	-	-	-
PC17. work collaboratively with others in a team	-	-	-	-
Diversity & Inclusion	**1**	**1**	**-**	**-**
PC18. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC19. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
Financial and Legal Literacy	**2**	**3**	**-**	**-**
PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.	-	-	-	-
PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
Essential Digital Skills	**3**	**5**	**-**	**-**
PC24. operate digital devices and use their features and applications securely and safely	-	-	-	-
PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.	-	-	-	-
PC26. display responsible online behaviour while using various social media platforms	-	-	-	-
PC27. create a personal email account, send and process received messages as per requirement	-	-	-	-
PC28. carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications	-	-	-	-
PC29. utilize virtual collaboration tools to work effectively	-	-	-	-
Entrepreneurship	**2**	**3**	**-**	**-**
PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
Customer Service	**1**	**2**	**-**	**-**
PC33. identify different types of customers and ways to communicate with them	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC34. identify and respond to customer requests and needs in a professional manner	-	-	-	-
PC35. use appropriate tools to collect customer feedback	-	-	-	-
PC36. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	**2**	**3**	**-**	**-**
PC37. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC39. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC40. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	**20**	**30**	**-**	**-**

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0103
NOS Name	Employability Skills (90 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	5
Credits	3
Version	1.0
Last Reviewed Date	18/12/2025
Next Review Date	18/12/2028
NSQC Clearance Date	18/12/2025

LSC/N0112: Automated warehouse operations

Description

This unit is about managing operations using automated warehousing techniques

Scope

The scope covers the following :

- Support design of automated warehouse
- Manage automated warehouse operations

Elements and Performance Criteria

Support design of automated warehouse

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

PC1. Follow the steps involved to support the designing of a warehouse layout.

PC2. Divide the picking area into zones based on item types (e.g., small items in one area, large items in another).

PC3. Provide inputs for layout and usage of automated devices such as Automatic Storage and Retrieval Systems (ASRS), automated racking, Automated Guided Vehicle (AGV), automated packaging system, robotic palletisation and depalletisation, product profiling systems, product identification systems and other equipment to be used

PC4. Provide inputs for the design of conveyor movement incorporating horizontal and vertical movement, merging of conveyors, and sorting systems

PC5. Suggest routes for movement of AGV and other Material Handling Equipment (MHE)

PC6. Ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision-free movement

PC7. Assist in the design and selection of storage racks and pallets to ensure easy access by automated equipment

PC8. Support in designing the grid of Radiofrequency identification (RFIDs) and bar codes to map the entire warehouse

PC9. Use vertical storage racking systems that allow robots or cranes to store and retrieve goods automatically.

PC10. Ensure that all automation systems are tested, calibrated, and function according to specifications before full deployment.

PC11. Confirm that automated systems are fully integrated into existing warehouse operations and that there is a smooth handoff between manual and automated processes.

Manage automated equipment operations

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

PC12. Ensure correct and optimal usage of automated and computerised systems as per Standard Operating Procedure (SOP)

PC13. Coordinate with technical support teams or in-house maintenance staff to ensure that the automated systems are well-maintained, troubleshoot issues, and manage downtime effectively.

PC14. Track the performance of automated systems using data from sensors, robotics, or Warehouse Management Systems (WMS).

PC15. Ensure real-time data is accurate and accessible to all relevant teams.

PC16. Use data analytics and KPIs to identify inefficiencies or opportunities for performance gains.

PC17. Conduct regular inspections and Supervise the maintenance of automated warehouse equipment

PC18. Propose upgrades and new technologies to improve operational performance.

PC19. Ensure that warehouse staff are properly trained in interacting with automated systems and can effectively and safely use the technologies to meet operational goals.

PC20. Monitor costs associated with automation, including maintenance, upgrades, and system failures.

PC21. Use predictive analytics to foresee when parts of the automated system might fail and plan maintenance before breakdowns happen.

PC22. Analyze data from automated systems to identify inefficiencies, trends, and potential areas for cost savings

PC23. Provide inputs for re-design of automated warehouse equipment in case of change in process/product.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Organisational process and procedures

KU2. Role and responsibilities of workers in the shop floor

KU3. Procedures for dealing with loss or damage to goods

KU4. Risk and impact of not following defined procedures/work instructions

KU5. Nature and characteristics of components in the warehouse

KU6. Nature and characteristics of components in the warehouse

KU7. Entire shop floor activities and person in charge of each function

KU8. The coding system being used by the organisation for labelling

KU9. SOPs and how to react in emergencies

KU10. All activities being done in a warehouse

KU11. Packing materials and labels that can be used for components of different products onto each kit

KU12. Types of workplace hazards that one can encounter on the job and safe operating practices

KU13. Technical specification of goods in the warehouse

KU14. Basics of different inventory count methods, inventory storage methods, etc.

KU15. Possible difficulties in each warehousing activity and minor organisational fixes for these difficulties

KU16. Different operating and financing models present in the transport and warehousing domains

KU17. Basics of different types of products, their estimated shelf life for transporting and the requirement of the type of vehicle for transportation

KU18. Reference documents required in the receiving to put away processes such as advanced shipping notice, goods consignment notice, purchase order, commercial invoice commercial invoice, transfer order, packing list, quality certificate, goods receipt note, delivery note and gate pass

KU19. Reference documents required for dispatch processes such as dispatch order, stock transport order, pick list, labels, packing list, delivery note, permit documents, gate pass, goods consignment note and trip sheet

KU20. Contract management, service level agreements (SLA) and Statement of Work (SOW)

KU21. Enterprise ERP software, including Warehouse Management Systems (WMS), Manufacturing Management Systems (MMS) and Transportation Management Software (TMS)

KU22. Tools for documentation: MS Excel and MS Word

KU23. Detailed knowledge of warehouse design and the format of the warehouse

KU24. Customs rules and regulations

KU25. Changes in custom clearance procedures and applicable duties

KU26. Automated warehouse systems, including robotics, AGVs, conveyor systems, AS/RS, and WMS.

KU27. Data Analysis and Reporting

KU28. Knowledge of safety regulations related to warehouse automation

KU29. Knowledge of compliance and standards for automated warehouse.

Generic Skills (GS)

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

GS1. Ability to create contingency plans and SOPs.

GS2. Make realistic day plans for each activity and Translate plans into targets

GS3. Monitor the smooth functioning of all activities

GS4. Prioritise and execute tasks within the scheduled time limits

GS5. Read and interpret regulatory requirements associated with customs clearance

GS6. Write reports to the staff, senior management, and the board of directors

GS7. Write the monthly evaluation or a situation analysis and recommendations

GS8. Maintain the record as per company policies

GS9. Communicate clearly in the local language or English with management and staff.

GS10. Provide advice and guidance to peers & juniors

GS11. Communicate with clients, customs officials and staff using a variety of communication devices and medium

GS12. Judge the quality of goods

GS13. Identify components required to make a product

GS14. Decide on actions to be taken on escalation raised by the customer

GS15. Decide about staffing requirements and estimate the time required for each activity.

GS16. Liaison with staff, transporters and customs authorities

GS17. Re-assess the schedule in case of delays/additional orders

GS18. Comprehend the customer timelines and ensure that they are met

GS19. Prevent company and customer information leakage GS20. ability to rapidly identify and correct errors

GS20. Analyse communication patterns with colleagues and customers to improve outcomes and deal with situations

GS21. Suggest methods to improve warehousing activities

GS22. Improve work processes by interacting with others and adopting best practices

GS23. Act upon constructively on any problems as pointed out by customers or superiors

GS24. Identify trends/common causes for errors and suggest possible solutions to management

GS25. Analyse the resource requirement in terms of manpower, delivery vehicles, software, system, etc., while designing layouts and shift reviews

GS26. Provide suggestions and methodologies and implement them for operational activities to increase the productivity of the system and make overall monitoring more effective

GS27. Improve work processes by adopting global best practices

GS28. Ability to plan, execute, and monitor automation projects

GS29. Analytical skills to identify and resolve issues related to automated systems quickly.

GS30. Ability to lead and motivate teams of diverse technical and operational staff

GS31. Foster collaboration and efficient communication within the team.

GS32. Skills in managing relationships with external vendors, contractors, and service providers

GS33. The ability to comply with relevant industry standards.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of automated warehouse	**17**	**32**	**-**	**6**
PC1. Follow the steps involved to support the designing of a warehouse layout.	2	3	-	1
PC2. Divide the picking area into zones based on item types (e.g., small items in one area, large items in another).	2	3	-	1
PC3. Provide inputs for layout and usage of automated devices such as Automatic Storage and Retrieval Systems (ASRS), automated racking, Automated Guided Vehicle (AGV), automated packaging system, robotic palletisation and depalletisation, product profiling systems, product identification systems and other equipment to be used	2	2	-	1
PC4. Provide inputs for the design of conveyor movement incorporating horizontal and vertical movement, merging of conveyors, and sorting systems	2	3	-	-
PC5. Suggest routes for movement of AGV and other Material Handling Equipment (MHE)	2	3	-	1
PC6. Ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision-free movement	2	3	-	-
PC7. Assist in the design and selection of storage racks and pallets to ensure easy access by automated equipment	1	3	-	-
PC8. Support in designing the grid of Radiofrequency identification (RFIDs) and bar codes to map the entire warehouse	1	3	-	1
PC9. Use vertical storage racking systems that allow robots or cranes to store and retrieve goods automatically.	1	3	-	-
PC10. Ensure that all automation systems are tested, calibrated, and function according to specifications before full deployment.	1	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. Confirm that automated systems are fully integrated into existing warehouse operations and that there is a smooth handoff between manual and automated processes.	1	3	-	1
Manage automated equipment operations	**13**	**28**	**-**	**4**
PC12. Ensure correct and optimal usage of automated and computerised systems as per Standard Operating Procedure (SOP)	1	3	-	-
PC13. Coordinate with technical support teams or in-house maintenance staff to ensure that the automated systems are well-maintained, troubleshoot issues, and manage downtime effectively.	2	3	-	1
PC14. Track the performance of automated systems using data from sensors, robotics, or Warehouse Management Systems (WMS).	1	3	-	-
PC15. Ensure real-time data is accurate and accessible to all relevant teams.	1	3	-	1
PC16. Use data analytics and KPIs to identify inefficiencies or opportunities for performance gains.	1	3	-	-
PC17. Conduct regular inspections and Supervise the maintenance of automated warehouse equipment	1	3	-	-
PC18. Propose upgrades and new technologies to improve operational performance.	1	2	-	-
PC19. Ensure that warehouse staff are properly trained in interacting with automated systems and can effectively and safely use the technologies to meet operational goals.	1	3	-	-
PC20. Monitor costs associated with automation, including maintenance, upgrades, and system failures.	1	1	-	1
PC21. Use predictive analytics to foresee when parts of the automated system might fail and plan maintenance before breakdowns happen.	1	1	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. Analyze data from automated systems to identify inefficiencies, trends, and potential areas for cost savings	1	2	-	-
PC23. Provide inputs for re-design of automated warehouse equipment in case of change in process/product.	1	1	-	-
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0112
NOS Name	Automated warehouse operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations
NSQF Level	6
Credits	2
Version	3.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2030
NSQC Clearance Date	07/10/2025

LSC/N0113: Cold Chain Operations

Description

This unit is about managing cold chain warehouse operations

Scope

The scope covers the following :

- Support design of cold chain warehouse
- Facilitate and review operations

Elements and Performance Criteria

Support design of cold chain warehouse

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

PC1. Analyse the types of products being stored, their volume, turn-around time and other business requirements of the cold chain warehouse

PC2. Coordinate with designers to design the entire overall layout and provide inputs for storage space allocation based on the type of goods, temperature requirements, and material handling requirements

PC3. Ensure that refrigerant and gasses (ethylene, etc.) are stored safely and adequate evacuation routes are provided for movement of perishable goods

PC4. Support in designing storage racks, pallets and pathways within the warehouse

PC5. Assist in the selection of appropriate equipment/ machines to be deployed in the warehouse

PC6. Organise the layout with a clear separation between receiving, storage, and dispatch to reduce the chance of cross-contamination and improve efficiency.

PC7. Ensure that racking and shelving are designed to allow easy airflow, which is vital for maintaining temperature control.

PC8. Use sensors for real-time temperature and humidity tracking to prevent spoilage and ensure quality control.

PC9. Accommodate processes to maintain zero wastage/ emission or a net-positive water footprint by implementing ways to conserve and reuse water, e.g., installing automated/sensor-enabled water faucets, integrating sensors with IoT for temperature control, installing low-flow faucets and toilets, fixing leaks promptly, optimising water-intensive processes, installing water treatment plants, etc.

Facilitate and review operations

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

PC10. Ensure ambient temperature and handling precautions are adhered to as per Standard operating procedure (SOP) for various perishable products

PC11. Confirm periodic examination and preventive maintenance of protective devices, pressure vessels and pipelines, and pipework parts by a refrigeration equipment maintenance specialist to prevent defects.

PC12. Ensure compliance with safe handling, loading/unloading of goods, pre-cooling temperature and storage conditions.

PC13. Verify goods documentation for correctness and accuracy and take necessary action to rectify any deviations

PC14. Ensure compliance with segregation, sorting, grading, packing, and temperature maintenance, and coordinate with the supervisor for any deviation

PC15. Ensure that FSSAI, CDSCO, and BIS regulations are followed as per the products stored.

PC16. Ensure compliance with Hazard Analysis and Critical Control Points (HACCP), Hazardous Material (HAZMAT) and other regulatory requirements

PC17. Verify operational fitness of cold chain storage equipment at regular intervals.

PC18. Check for correct contamination, damage or leakage segregation and facilitate quarantine/ disposal of items as per policy.

PC19. Verify that implementation of the cleaning schedule for all equipment and machines is followed

PC20. Analyse and find root cause in case of delays at different stages of the cold chain operations, and Initiate action to prevent the occurrence of any microbiological non-conformities at any stage of cold chain operations.

PC21. Coordinate with reefer vehicle operators to ensure cleanliness and maintenance of appropriate temperatures in the vehicles

PC22. Regularly inspect the operational area, such as the ripening chamber, transport, packhouse, and cold storage areas, for compliance with safety, security, and cleanliness norms/5S.

PC23. Prepare periodic reports on operations such as work completion status, resource utilised, downtime, etc.

PC24. Follow hygiene & sanitation standards of Government bodies like FSSAI, APEDA and /or EIA or importing countries like FAO, EU standards

PC25. Ensure no sign of pest infestation and install rodent traps, fly glues and insectocutors wherever needed

PC26. Confirm that the staff working in cold storage and handling goods follow the protocols for standard health, safety and hygiene procedures for cold storage units.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Types of workplace hazards that one can encounter on the job and safe operating practices

KU2. All activities being done in a warehouse

KU3. Shop floor operations and material planning

KU4. Cold chain and its operations

KU5. Different inventory management systems as well as counting methods

KU6. Technical specifications of goods in the warehouse

KU7. Possible difficulties in each warehousing activity

KU8. Changes in spoiled goods with respect to colour, dehydration and protein content

KU9. Appropriate grading criteria for goods

KU10. The extent of chlorination required for washing fruits

KU11. Technique for measurement of hydration levels

KU12. Identification of goods based on grading categories

KU13. Appropriate oxygen and carbon dioxide levels to be maintained in the grading line facility

KU14. Appropriate water temperature used for washing

KU15. Wastewater recycling, reuse and disposal procedure

KU16. Appropriate time is required for each stage of the pack house activity

KU17. Changes in spoiled goods with respect to colour, dehydration and protein content

KU18. Time for which washed goods should be dried to avoid shrinking and water loss

KU19. Different types of trolleys used within the cold storage facility. For example, trolleys can be two-wheeled trolleys - manual platform trolleys, self-propelled platform trolleys, manual or self-propelled pallet trucks, belt, chain or roller conveyors, or gravity or self-propelled ones.

KU20. Equipment used for vehicle handling, namely platform elevators, cranes, gantries, hand-stacking equipment, forklift trucks, various mechanised stacking equipment etc.

KU21. What handling requirements are appropriate for what type of goods, for e.g., some marine products are richer in aroma and thus should be handled properly to ensure that aroma doesn't spread to other products through hands or other tools used while handling

KU22. Hazard Analysis and Critical Control Points (HACCP), Hazardous Material (HAZMAT)

KU23. optimal temperature and humidity conditions required for various products handled in cold chain, for example, Marine products: -18 to -21 degrees: Fruits and vegetables: -1 to 15 degrees: 95% to 98% RH; 65% to 75% RH for onion and garlic; 40% to 50% RH for beans, dry fruits and vegetables Dairy: -20 to +4 degrees; Dry fruits: 4 to 10 degrees; Pharma - chemicals and vaccines: 4 to 10 degrees

KU24. Wastewater recycling, reuse and disposal procedure

Generic Skills (GS)

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

GS1. Ability to create contingency plans and SOPs.

GS2. Make realistic day plans for each activity and Translate plans into targets

GS3. Monitor the smooth functioning of all activities

GS4. Prioritise and execute tasks within the scheduled time limits

GS5. Read and interpret regulatory requirements associated with customs clearance

GS6. Write reports to the staff, senior management, and the board of directors

GS7. Write the monthly evaluation or a situation analysis and recommendations

GS8. Maintain the record as per company policies

GS9. Communicate clearly in the local language or English with management and staff.

GS10. Provide advice and guidance to peers & juniors

GS11. Communication with clients, customs officials and staff using a variety of communication devices and medium

GS12. Judge the quality of goods

GS13. Identify components required to make a product

GS14. Decide on actions to be taken on escalation raised by the customer

GS15. Decide about staffing requirement and estimate time required for each activity.

GS16. Liaison with staff, transporters and customs authorities

GS17. Re-assess the schedule in case of delays/additional orders

GS18. Comprehend the customer timelines and ensure that they are met

GS19. Prevent company and customer information leakage

GS20. Ability to rapidly identify and correct errors

GS21. Suggest methods to improve warehousing activities

GS22. Analyse communication patterns with colleagues and customers to improve outcomes and deal with situations

GS23. improve work processes by interacting with others and adopting best practices

GS24. Act upon constructively on any problems as pointed out by customers or superiors

GS25. Identify trends/common causes for errors and suggest possible solutions to management

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of cold chain warehouse	**12**	**23**	**-**	**5**
PC1. Analyse the types of products being stored, their volume, turn-around time and other business requirements of the cold chain warehouse	2	3	-	1
PC2. Coordinate with designers to design the entire overall layout and provide inputs for storage space allocation based on the type of goods, temperature requirements, and material handling requirements	2	2	-	-
PC3. Ensure that refrigerant and gasses (ethylene, etc.) are stored safely and adequate evacuation routes are provided for movement of perishable goods	2	3	-	1
PC4. Support in designing storage racks, pallets and pathways within the warehouse	1	2	-	1
PC5. Assist in the selection of appropriate equipment/ machines to be deployed in the warehouse	1	3	-	-
PC6. Organise the layout with a clear separation between receiving, storage, and dispatch to reduce the chance of cross-contamination and improve efficiency.	1	3	-	1
PC7. Ensure that racking and shelving are designed to allow easy airflow, which is vital for maintaining temperature control.	1	2	-	-
PC8. Use sensors for real-time temperature and humidity tracking to prevent spoilage and ensure quality control.	1	2	-	1
PC9. Accommodate processes to maintain zero wastage/ emission or a net-positive water footprint by implementing ways to conserve and reuse water, e.g., installing automated/sensor-enabled water faucets, integrating sensors with IoT for temperature control, installing low-flow faucets and toilets, fixing leaks promptly, optimising water-intensive processes, installing water treatment plants, etc.	1	3	-	-
Facilitate and review operations	**18**	**37**	**-**	**5**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. Ensure ambient temperature and handling precautions are adhered to as per Standard operating procedure (SOP) for various perishable products	1	3	-	-
PC11. Confirm periodic examination and preventive maintenance of protective devices, pressure vessels and pipelines, and pipework parts by a refrigeration equipment maintenance specialist to prevent defects.	1	3	-	1
PC12. Ensure compliance with safe handling, loading/unloading of goods, pre-cooling temperature and storage conditions.	1	2	-	1
PC13. Verify goods documentation for correctness and accuracy and take necessary action to rectify any deviations	1	2	-	-
PC14. Ensure compliance with segregation, sorting, grading, packing, and temperature maintenance, and coordinate with the supervisor for any deviation	1	3	-	1
PC15. Ensure that FSSAI, CDSCO, and BIS regulations are followed as per the products stored.	1	3	-	-
PC16. Ensure compliance with Hazard Analysis and Critical Control Points (HACCP), Hazardous Material (HAZMAT) and other regulatory requirements	1	2	-	-
PC17. Verify operational fitness of cold chain storage equipment at regular intervals.	1	3	-	1
PC18. Check for correct contamination, damage or leakage segregation and facilitate quarantine/ disposal of items as per policy.	2	3	-	1
PC19. Verify that implementation of the cleaning schedule for all equipment and machines is followed	1	2	-	-
PC20. Analyse and find root cause in case of delays at different stages of the cold chain operations, and Initiate action to prevent the occurrence of any microbiological non-conformities at any stage of cold chain operations.	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC21. Coordinate with reefer vehicle operators to ensure cleanliness and maintenance of appropriate temperatures in the vehicles	1	1	-	-
PC22. Regularly inspect the operational area, such as the ripening chamber, transport, packhouse, and cold storage areas, for compliance with safety, security, and cleanliness norms/5S.	1	1	-	-
PC23. Prepare periodic reports on operations such as work completion status, resource utilised, downtime, etc.	1	2	-	-
PC24. Follow hygiene & sanitation standards of Government bodies like FSSAI, APEDA and /or EIA or importing countries like FAO, EU standards	1	1	-	-
PC25. Ensure no sign of pest infestation and install rodent traps, fly glues and insectocutors wherever needed	1	2	-	-
PC26. Confirm that the staff working in cold storage and handling goods follow the protocols for standard health, safety and hygiene procedures for cold storage units.	1	2	-	-
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0113
NOS Name	Cold Chain Operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations
NSQF Level	6
Credits	2
Version	3.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2030
NSQC Clearance Date	07/10/2025

LSC/N0114: Dry Bulk warehouse operations

Description

This unit is about managing dry bulk warehousing operations

Scope

The scope covers the following :

- Support design of bulk warehouse
- Facilitate and review of dry bulk warehouse operations

Elements and Performance Criteria

Support design of dry bulk warehouse

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

PC1. Determine the type of dry bulk materials/commodities being stored (e.g., grains, powders, pellets, chemicals), their volume, turn-around time (TAT) and their storage requirements (e.g., silos, bins, open piles).

PC2. Select the right kind of storage method as per the product/commodity type to maintain temperature, humidity and other storage conditions

PC3. Ensure fitness of the site for dry bulk warehouse operations regarding a. ground condition and suitability b. cargo size, weight, height and size of stows/heaps c. electrical installations d. stack integrity and product flow dynamics e. arrangements for operational and emergency situations, traffic, requirements for permanent or movable bulk walls and maintenance cleaning requirements f. likely vehicle fumes in bulk storage areas g. other operational units in the vicinity h. type of equipment going

PC4. Optimise by using vertical space for storage, particularly for materials that do not require frequent access.

PC5. Design conveyors to move materials efficiently from receiving areas to storage and from storage to packaging or shipping areas.

PC6. Ensure the layout meets industry standards and regulations regarding fire safety, ventilation, and worker safety.

PC7. Provide inputs for layout and usage of Material Handling Equipment (MHEs) and other equipment to be used

PC8. Ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth, collision-free movement and plan separate pathways for pedestrians, forklifts, or other MHE.

PC9. Support in the development of systems to monitor the storage of cargo and tracking of capacity utilisation

PC10. Plan for fire suppression systems, especially if handling flammable or combustible dry bulk materials and include dust suppression measures where necessary.

PC11. Ensure that hazardous materials are stored and handled according to safety regulations (e.g., proper labelling and containment).

PC12. Consider automated systems, such as robotic palletising, automated sorting, or conveyors for material transport.

Facilitate and review dry bulk warehouse operations

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

PC13. Check periodically on the safety of the stored products and take necessary preventive action

PC14. Ensure different materials are stored separately to avoid contamination or cross-contamination.

PC15. Utilise robust inventory methods such as FIFO (First In, First Out) or LIFO (Last In, First Out) depending on the material's shelf life or demand patterns.

PC16. Contain product loss to a minimum by ensuring adequate dust suppression systems, pest/rodent control measures, monitoring spillages/breakages and taking necessary preventive and corrective action

PC17. Continuously monitor weight and volume metrics to ensure adequate storage in different locations

PC18. Conduct regular inspections to ensure all equipment is functional and Set up a preventive maintenance schedule.

PC19. Ensure that disaster recovery plans, such as response plans for fires or spills, are up to date and known by all staff members.

PC20. Conduct regular reviews regarding challenges, accidents, system failures, etc.

PC21. Review daily operation reports w.r.t storage space utilisation and prepare periodic reports for top management on warehouse performance.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Knowledge of various dry bulk commodities (such as grains, coal, cement, fertilisers, and powders) and their specific storage and handling requirements.

KU2. Familiarity with the logistics, processes, and technologies involved in receiving, storing, handling, and dispatching bulk materials.

KU3. Knowledge of local, national, and international regulations related to safety, environmental protection, and quality control in warehouse operations (e.g., OSHA, fire safety codes, environmental impact).

KU4. Knowledge of safely storing and managing hazardous materials (e.g., chemicals, fertilisers) to prevent accidents or contamination.

KU5. Familiarity with automated material handling systems (e.g., conveyors, pneumatic unloading systems), as well as the maintenance and troubleshooting of warehouse equipment.

KU6. Knowledge of barcode scanning systems or RFID technologies for tracking goods and ensuring accurate inventory management.

KU7. Knowledge of managing the flow of goods from suppliers to the warehouse and from the warehouse to customers, including scheduling deliveries and optimising transportation routes.

KU8. Proficiency in managing order picking, packing, and shipping processes, ensuring timely and accurate deliveries.

KU9. Knowledge of quality standards for bulk goods and ensuring that products meet internal and external specifications before shipping.

KU10. Knowledge of financial management to control warehouse operational costs, such as staffing, equipment maintenance, energy use, and inventory management.

KU11. Knowledge of current warehouse management innovations, automation, and logistics trends to enhance operations.

KU12. Knowledge of environmentally sustainable practices, such as minimising waste, reducing energy consumption, and optimising material usage.

KU13. Knowledge of environmental policies governing dry bulk materials and ensuring compliance with emissions, waste disposal, and spill prevention standards.

Generic Skills (GS)

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

GS1. Proficiency in using software such as WMS for inventory control, stock tracking, and order management.

GS2. Ability to interpret data (e.g., inventory levels, order trends, and performance metrics) to make informed decisions and optimise warehouse operations.

GS3. Expertise in inventory control techniques (FIFO, LIFO, etc.), ensuring accurate stock levels and minimising losses due to spillage or contamination.

GS4. Ability to supervise, motivate, and lead a team, ensuring productivity while maintaining high safety and operational standards.

GS5. Skilled in resolving disputes between employees or suppliers and constructively addressing complaints or performance issues.

GS6. Ability to prioritise tasks effectively, manage multiple operations simultaneously, and meet deadlines.

GS7. Skill in assessing employee performance, conducting appraisals, and implementing strategies to improve productivity and morale.

GS8. Ability to design and enforce safety protocols, including properly handling equipment, materials, and emergency response procedures for fire, spills, or accidents.

GS9. Ability to plan and maximise storage space through efficient layout designs and inventory arrangements.

GS10. Ability to identify cost-saving opportunities (e.g., reducing waste, improving energy efficiency) and implement solutions without sacrificing safety or service quality.

GS11. Manage relationships with suppliers and service providers to ensure timely material delivery, favourable pricing, and quality service.

GS12. Ability to communicate effectively with staff, management, customers, and suppliers.

GS13. Skilled in documenting warehouse activities, inventory logs, order processing, and compliance with safety and regulatory standards.

GS14. Ability to produce clear reports for upper management.

GS15. Ability to negotiate with suppliers, customers, or service providers regarding pricing, terms of service, and delivery schedules.

GS16. Ability to analyse complex situations, identify underlying problems, and implement solutions quickly and effectively.

GS17. Proficiency in addressing equipment malfunctions, material handling issues, or disruptions in supply chain operations.

GS18. Ability to manage unexpected disruptions (e.g., inventory discrepancies, equipment failures, accidents) and mitigate their impact on warehouse operations.

GS19. Ability to adapt to changing business needs, technology advancements, and market trends.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of dry bulk warehouse	**19**	**36**	**-**	**8**
PC1. Determine the type of dry bulk materials/commodities being stored (e.g., grains, powders, pellets, chemicals), their volume, turn-around time (TAT) and their storage requirements (e.g., silos, bins, open piles).	2	3	-	1
PC2. Select the right kind of storage method as per the product/commodity type to maintain temperature, humidity and other storage conditions	2	3	-	1
PC3. Ensure fitness of the site for dry bulk warehouse operations regarding a. ground condition and suitability b. cargo size, weight, height and size of stows/heaps c. electrical installations d. stack integrity and product flow dynamics e. arrangements for operational and emergency situations, traffic, requirements for permanent or movable bulk walls and maintenance cleaning requirements f. likely vehicle fumes in bulk storage areas g. other operational units in the vicinity h. type of equipment going	3	3	-	2
PC4. Optimise by using vertical space for storage, particularly for materials that do not require frequent access.	2	3	-	1
PC5. Design conveyors to move materials efficiently from receiving areas to storage and from storage to packaging or shipping areas.	1	3	-	-
PC6. Ensure the layout meets industry standards and regulations regarding fire safety, ventilation, and worker safety.	2	3	-	1
PC7. Provide inputs for layout and usage of Material Handling Equipment (MHEs) and other equipment to be used	1	3	-	-
PC8. Ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth, collision-free movement and plan separate pathways for pedestrians, forklifts, or other MHE.	2	3	-	2

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC9. Support in the development of systems to monitor the storage of cargo and tracking of capacity utilisation	1	3	-	-
PC10. Plan for fire suppression systems, especially if handling flammable or combustible dry bulk materials and include dust suppression measures where necessary.	1	3	-	-
PC11. Ensure that hazardous materials are stored and handled according to safety regulations (e.g., proper labelling and containment).	1	3	-	-
PC12. Consider automated systems, such as robotic palletising, automated sorting, or conveyors for material transport.	1	3	-	-
Facilitate and review dry bulk warehouse operations	**11**	**24**	**-**	**2**
PC13. Check periodically on the safety of the stored products and take necessary preventive action	1	3	-	-
PC14. Ensure different materials are stored separately to avoid contamination or cross-contamination.	1	3	-	-
PC15. Utilise robust inventory methods such as FIFO (First In, First Out) or LIFO (Last In, First Out) depending on the material's shelf life or demand patterns.	1	3	-	-
PC16. Contain product loss to a minimum by ensuring adequate dust suppression systems, pest/rodent control measures, monitoring spillages/breakages and taking necessary preventive and corrective action	2	3	-	-
PC17. Continuously monitor weight and volume metrics to ensure adequate storage in different locations	1	3	-	1
PC18. Conduct regular inspections to ensure all equipment is functional and Set up a preventive maintenance schedule.	1	3	-	-
PC19. Ensure that disaster recovery plans, such as response plans for fires or spills, are up to date and known by all staff members.	2	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC20. Conduct regular reviews regarding challenges, accidents, system failures, etc.	1	2	-	1
PC21. Review daily operation reports w.r.t storage space utilisation and prepare periodic reports for top management on warehouse performance.	1	1	-	-
NOS Total	**30**	**60**	**-**	**10**

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0114
NOS Name	Dry Bulk warehouse operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations
NSQF Level	6
Credits	2
Version	5.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2030
NSQC Clearance Date	07/10/2025

LSC/N0115: Bonded warehouse operations

Description

This unit is about managing Bonded warehouse operations

Scope

The scope covers the following :

- Support design of bonded warehouse
- Facilitate and review operations
- Assist in customs clearance

Elements and Performance Criteria

Support design of bonded warehouse

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

PC1. Evaluate site fitness for a bonded warehouse in terms of a. industrial development of the proposed area for availability of importers and exporters b. warehouses are to be appointed/licensed at designated places as per govt requirements c. comprehend the types of products being stored, their volume, turnaround time and other business requirements of the warehouse

PC2. Allocated Separate areas for different types of goods based on their customs status (e.g., bonded, cleared for release, re-export or goods pending inspection).

PC3. Provide inputs for layout and usage of Material Handling Equipment (MHEs) and other equipment to be used

PC4. Support the development of systems to monitor the storage of cargo and tracking of capacity utilisation

PC5. Design location of storage racks and pallets according to the type of goods getting stored, e.g. temperature-controlled goods, hazardous materials, etc., for ease of movement and operation

PC6. Ensure the warehouse layout allows easy access for customs inspections and efficient storage management.

Facilitate and review operations

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

PC7. Maintain a documented record of all movements (merchandise received and shipped) made in the warehouse.

PC8. Ensure that all bonded goods are properly tracked in a system, with the details about nature, quantity, and movement of goods in and out of the warehouse.

PC9. Issue bond to the customer for the placement of goods in the warehouse

PC10. Draft and present regular reports of goods movements in the bonded warehouse to the Customs Authorities

PC11. Maintain a detailed and accurate inventory of goods held in bond with their customs status (e.g., whether they are in bond or have been cleared for release).

PC12. Oversee the processes of releasing goods when customs duties are paid, ensuring compliance with customs regulations and timely duty payment.

PC13. Interact with customs and take necessary action to release goods seized by customs by providing the required documentation and other inputs

PC14. Address client queries and grievances immediately and take necessary corrective and preventive action

PC15. Apply opportune changes or updates per the legal regulations governing bonded warehouse

PC16. Conduct regular reviews regarding challenges, accidents, system failures, etc., and daily operation reports w.r.t storage space utilisation and physical inventory against recorded data.

PC17. Supervise maintenance activities of warehouse systems and equipment

PC18. Prepare for and participate in any audits by customs or regulatory bodies, maintaining transparency and compliance with the bond terms.

PC19. Ensure goods are handled carefully to prevent theft, damage, or loss.

PC20. Develop strategies to minimise risks associated with holding goods in bond, such as fire, theft, or spoilage.

Assist in customs clearance

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

PC21. Coordinate with custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance

PC22. Coordinate with clients regarding delays, product issues, custom-related documentation issues, etc.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Knowledge of local, national, and international regulations related to safety, environmental protection, and quality control in warehouse operations (e.g., OSHA, fire safety codes, environmental impact).

KU2. Knowledge of safely storing and managing hazardous materials (e.g., chemicals, fertilisers) to prevent accidents or contamination.

KU3. Familiarity with automated material handling systems and the maintenance and troubleshooting of warehouse equipment.

KU4. Knowledge of barcode scanning systems or RFID technologies for tracking goods and ensuring accurate inventory management.

KU5. Knowledge of managing the flow of goods from suppliers to the warehouse and from the warehouse to customers, including scheduling deliveries and optimising transportation routes.

KU6. Proficiency in managing order picking, packing, and shipping processes, ensuring timely and accurate deliveries.

KU7. Knowledge of financial management to control warehouse operational costs, such as staffing, equipment maintenance, energy use, and inventory management.

KU8. Knowledge of current warehouse management innovations, automation, and logistics trends to enhance operations.

KU9. Knowledge of environmentally sustainable practices, such as minimising waste, reducing energy consumption, and optimising material usage.

KU10. Knowledge of local and international customs regulations, including duties, tariffs, and exemptions.

KU11. Knowledge to prepare for and conduct audits by customs and regulatory agencies.

KU12. Knowledge of warehouse operations, including receiving, storing, and dispatching goods in a controlled, bonded environment.

KU13. Knowledge of using and maintaining warehouse equipment such as forklifts, cranes, and conveyor systems.

KU14. Knowledge of handling emergencies, such as security breaches, inventory discrepancies, or unexpected regulatory changes.

KU15. Knowledge of the cost implications of customs duties, storage, and handling to optimise profitability while maintaining compliance with regulatory requirements.

Generic Skills (GS)

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

GS1. Ability to track, analyse, and report on inventory and warehouse operations to ensure smooth customs clearance and operational efficiency.

GS2. Excellent communication skills for liaising with customs, suppliers, clients, and internal staff to ensure timely and efficient handling of goods.

GS3. Ability to negotiate terms with customs authorities, suppliers, and service providers, ensuring the best terms for the business and compliance with laws.

GS4. Ability to resolve complex situations, such as discrepancies in customs documentation or issues with damaged goods, while ensuring compliance with regulations.

GS5. Managing the financial aspects of the warehouse, including cost analysis, budget preparation, and financial reporting.

GS6. Proficiency in using software such as WMS for inventory control, stock tracking, and order management.

GS7. Ability to interpret data (e.g., inventory levels, order trends, and performance metrics) to make informed decisions and optimise warehouse operations.

GS8. Expertise in inventory control techniques (FIFO, LIFO, etc.), ensuring accurate stock levels and minimising losses due to spillage or contamination.

GS9. Ability to supervise, motivate, and lead a team, ensuring productivity while maintaining high safety and operational standards.

GS10. Skilled in resolving disputes between employees or suppliers and constructively addressing complaints or performance issues.

GS11. Ability to prioritise tasks effectively, manage multiple operations simultaneously, and meet deadlines.

GS12. Skill in assessing employee performance, conducting appraisals, and implementing strategies to improve productivity and morale.

GS13. Ability to design and enforce safety protocols, including properly handling equipment, materials, and emergency response procedures for fire, spills, or accidents.

GS14. Ability to plan and maximise storage space through efficient layout designs and inventory arrangements.

GS15. Ability to identify cost-saving opportunities (e.g., reducing waste, improving energy efficiency) and implement solutions without sacrificing safety or service quality.

GS16. Manage relationships with suppliers and service providers to ensure timely material delivery, favourable pricing, and quality service.

GS17. Ability to communicate effectively with staff, management, customers, and suppliers.

GS18. Skilled in documenting warehouse activities, inventory logs, order processing, and compliance with safety and regulatory standards.

GS19. Ability to produce clear reports for upper management.

GS20. Ability to negotiate with suppliers, customers, or service providers regarding pricing, terms of service, and delivery schedules.

GS21. Ability to analyse complex situations, identify underlying problems, and implement solutions quickly and effectively.

GS22. Proficiency in addressing equipment malfunctions, material handling issues, or disruptions in supply chain operations.

GS23. Ability to manage unexpected disruptions (e.g., inventory discrepancies, equipment failures, accidents) and mitigate their impact on warehouse operations.

GS24. Ability to adapt to changing business needs, technology advancements, and market trends

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of bonded warehouse	**9**	**16**	**-**	**4**
PC1. Evaluate site fitness for a bonded warehouse in terms of a. industrial development of the proposed area for availability of importers and exporters b. warehouses are to be appointed/licensed at designated places as per govt requirements c. comprehend the types of products being stored, their volume, turnaround time and other business requirements of the warehouse	2	3	-	1
PC2. Allocated Separate areas for different types of goods based on their customs status (e.g., bonded, cleared for release, re-export or goods pending inspection).	2	3	-	1
PC3. Provide inputs for layout and usage of Material Handling Equipment (MHEs) and other equipment to be used	2	3	-	-
PC4. Support the development of systems to monitor the storage of cargo and tracking of capacity utilisation	1	3	-	1
PC5. Design location of storage racks and pallets according to the type of goods getting stored, e.g. temperature-controlled goods, hazardous materials, etc., for ease of movement and operation	1	2	-	-
PC6. Ensure the warehouse layout allows easy access for customs inspections and efficient storage management.	1	2	-	1
Facilitate and review operations	**19**	**39**	**-**	**4**
PC7. Maintain a documented record of all movements (merchandise received and shipped) made in the warehouse.	1	2	-	1
PC8. Ensure that all bonded goods are properly tracked in a system, with the details about nature, quantity, and movement of goods in and out of the warehouse.	2	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC9. Issue bond to the customer for the placement of goods in the warehouse	1	3	-	1
PC10. Draft and present regular reports of goods movements in the bonded warehouse to the Customs Authorities	1	3	-	-
PC11. Maintain a detailed and accurate inventory of goods held in bond with their customs status (e.g., whether they are in bond or have been cleared for release).	2	3	-	-
PC12. Oversee the processes of releasing goods when customs duties are paid, ensuring compliance with customs regulations and timely duty payment.	1	3	-	-
PC13. Interact with customs and take necessary action to release goods seized by customs by providing the required documentation and other inputs	2	3	-	-
PC14. Address client queries and grievances immediately and take necessary corrective and preventive action	2	3	-	-
PC15. Apply opportune changes or updates per the legal regulations governing bonded warehouse	1	3	-	-
PC16. Conduct regular reviews regarding challenges, accidents, system failures, etc., and daily operation reports w.r.t storage space utilisation and physical inventory against recorded data.	1	2	-	-
PC17. Supervise maintenance activities of warehouse systems and equipment	1	3	-	-
PC18. Prepare for and participate in any audits by customs or regulatory bodies, maintaining transparency and compliance with the bond terms.	1	3	-	1
PC19. Ensure goods are handled carefully to prevent theft, damage, or loss.	2	3	-	-
PC20. Develop strategies to minimise risks associated with holding goods in bond, such as fire, theft, or spoilage.	1	2	-	1
Assist in customs clearance	**2**	**5**	**-**	**2**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC21. Coordinate with custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance	1	2	-	1
PC22. Coordinate with clients regarding delays, product issues, custom-related documentation issues, etc.	1	3	-	1
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0115
NOS Name	Bonded warehouse operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations
NSQF Level	6
Credits	2
Version	5.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2030
NSQC Clearance Date	07/10/2025

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each 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 PC

2. The assessment for the theory part will be based on knowledge bank of questions validated and approved by the SSC.

3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)

4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these criteria

5. To pass the Qualification Pack, every trainee should score a minimum of 70% for NSQF level 4 & above job roles and 50% for NSQF level 1 to 3 job roles.

6. In case of unsuccessful completion, the trainee may seek re-assessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

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

Minimum Passing % at NOS Level: 50

(**Please note**: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N9601.Review and facilitate daily operations	30	60	-	10	100	10
LSC/N9701.Manage Business and stakeholder relations	30	60	-	10	100	10
LSC/N9914.Manage operations and Employee Performance	30	60	-	10	100	10
LSC/N9603.Profit and Loss account management and cost accounting	30	60	-	10	100	10
LSC/N0111.Support in warehouse layout design	30	60	-	10	100	20
LSC/N0139.Optimise and continuously improve warehouse operations	30	60	-	10	100	10
LSC/N9911.Follow health, safety, security procedures and maintain integrity, ethics at workplace	30	60	-	10	100	10

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
DGT/VSQ/N0103.Employability Skills (90 Hours)	20	30	-	-	50	10
Total	**230**	**450**	**-**	**70**	**750**	**90**

Elective: 1 Automated warehouse operations

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0112.Automated warehouse operations	30	60	-	10	100	10
Total	**30**	**60**	**-**	**10**	**100**	**10**

Elective: 2 Cold Chain Operations

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0113.Cold Chain Operations	30	60	-	10	100	10
Total	**30**	**60**	**-**	**10**	**100**	**10**

Elective: 3 Dry Bulk warehouse operations

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0114.Dry Bulk warehouse operations	30	60	-	10	100	10
Total	**30**	**60**	**-**	**10**	**100**	**10**

Elective: 4 Bonded warehouse operations

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0115.Bonded warehouse operations	30	60	-	10	100	10
Total	**30**	**60**	**-**	**10**	**100**	**10**

Acronyms

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

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.

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.