

Model Curriculum

Warehouse, Inventory and Transport Manager

(Electives – *Automated Warehouse/ Cold chain Warehouse/ Dry Bulk Warehouse/ Bonded Warehouse/ Multi Modal Operation / Hub and Spoke Operations*)
(Options – *Bid process*)

SECTOR: LOGISTICS
SUB-SECTOR: WAREHOUSING
OCCUPATION: OPERATIONS (RECEIVING/ LOADING AND UNLOADING/QUALITY ASSURANCE/ STORAGE/ DISPATCH OR VANNING)
REF ID: LSC/Q0105, V1.0
NSQF LEVEL: 6



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK - NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

Logistic Sector Skill Council of India

for the

Model Curriculum

Complying to National Occupational Standards of

Job Role/ Qualification Pack: **'Warehouse, Inventory and Transport Manager'** QP No. **'LSC/Q0105 NSQF Level 6'**

Date of Issuance: May 4th, 2019

Valid up to: May 4th, 2022

**Valid up to the next review date of the Qualification Pack*



Authorised Signatory
(Logistics Sector Skill Council of India)

TABLE OF CONTENTS

1. Curriculum	01
2. Trainer Prerequisites	14
3. Annexure: Assessment Criteria	15

Warehouse, Inventory and Transport Manager

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Warehouse, Inventory and Transport Manager”, in the “Logistics” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Warehouse, Inventory and Transport Manager		
Qualification Pack Name & Reference ID.	LSC/Q0105, v1.0		
Version No.	1.0	Version Update Date	04-05-2019
Pre-requisites to Training	Graduate / Diploma/ Class XII/ Class X with relevant experience		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <p>Compulsory:</p> <ul style="list-style-type: none"> Analyse activities scheduled and corresponding resources allocated Assess compliance to regulatory requirements Generate business for the organisation and manage relationships with stakeholders including clients, customs, PGAs etc. Analyse operational and business performance to undertake improvement initiatives Manage business profitably by analysing profit and loss and undertaking operations improvement initiatives. Design warehouse layout and equipment Plan and coordinate customs clearance Generate MRP to plan for material receipt, procurement, storage, handling and movement Prepare forecasts to plan for material as per production, sales and dispatch requirement Comply to work place integrity, ethical and regulatory practices. Manage workplace for safe and healthy work environment by following and ensuring compliance to regulatory and safety norms Inspect invoices for correct application of GST <p>Electives:</p> <ul style="list-style-type: none"> Design layout, equipment, route and processes for automated, cold chain, dry bulk and bonded warehouse Assess asset utilisation in a warehouse Manage compliance to SOP in safe segregation, grading, storage, temperature control, microbiological control and movement of goods in a cold storage warehouse Manage cargo handling, volume/weight measurement, pest control, spillage control and equipment maintenance in a dry bulk warehouse Manage goods demarcation, segregation, bond issue, customs 		

	<p>clearance and related activities in a bonded warehouse</p> <ul style="list-style-type: none">• Manage multimodal operation activities in coordination with various stakeholders• Direct hub and spoke activities to ensure streamlined operations <p>Options:</p> <ul style="list-style-type: none">• Manage bid processing activities to improve business turnover
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This course encompasses 10 out of 10 Compulsory NOS (National Occupational Standards), 6 out of 6 Electives, 1 out of 1 Options of “Warehouse, Inventory and Transport Manager” Qualification Pack issued by “Logistics Sector Skill Council”.

COMPULSORY NOS:

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Introduction to Warehouse, Inventory and Transport Manager</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Classify the components of supply chain and logistics sector Detail the various sub-sectors and the opportunities in them Identify various activities in land transportation, warehouse, port yard, land, ship and air transportation Explain job roles in warehousing Detail your job role as warehouse manager and its interface with other job roles Describe the various MHEs and equipment used in warehouses Discuss the documentation requirements in warehousing operations 	Teaching board, computer, projector, video player or TV
2	<p>Daily review and process control</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code LSC/N9601</p>	<ul style="list-style-type: none"> Analyse the previous day's performance to chart the plan of action Approve resource allocation post inspection of pending activities for the day Prepare daily/ weekly activity plan Resolve interdepartmental queries and issues Assess optimal utilisation of all available resources Identify training and development needs Create a cohesive working environment between clients and organisation Analyse business performance trends and forecasts Prepare budgets for various operations Review compliance to relevant state/ country and international laws and regulations Plan corrective and preventive actions to improve outcome of business activities Assess compliance to hazardous goods handling standards 	Computer, Management information system (MIS), Enterprise Resource Planning (ERP), performance review software, budgeting and forecasting software, stationery, worksheets, SOP etc.
3	<p>Business development and stakeholder relations</p> <p>Theory Duration (hh:mm) 20:00</p>	<ul style="list-style-type: none"> Identify target population to be approached for business development Assess prospective clients Identify client requirements Offer customised or bundled solutions based on sales pitch 	Computers, MIS, ERP, business lead software, Teaching board, computer, projector, video player and TV

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code LSC/N9701</p>	<ul style="list-style-type: none"> • Demonstrate effective oral and written business communication • Prepare costing sheets for service delivery • Use ERP for updating client data • Estimate when to upsell and cross-sell services to existing clients • Describe the nuances in building rapport with clients, customs, government agencies, insurance for healthy relationship • Prepare service level agreements • Schedule resources as per operational requirement 	
4	<p>Performance management system</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code LSC/N9602</p>	<ul style="list-style-type: none"> • Define performance measurement metrics for assigned activities • Explain performance review process • Perform root cause analysis for non-performing areas • Develop corrective and preventive actions to avoid recurrence • Design performance improvement plan • Communicate performance improvement plan • Define KPIs as per organisational metrics and expectations • Examine employee grievances and undertake corrective actions 	SOP, MIS, ERP, worksheets, stationery, computer, projector etc.
5	<p>Profit and loss account management and cost accounting</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code LSC/N9603</p>	<ul style="list-style-type: none"> • Describe the process of analysing profit & loss (P&L) • Explain budgeting process • Evaluate budgetary compliance • Explain methods to analyse variance between budget and actual expenditure • Compare budget with actual physical output • Prepare budget amendments • List the risk management procedures • Perform Activity Based Costing (ABC) • Perform audit to identify reasons for deviation from costing • Explain the process to rationalise cost by undertaking improvement activities 	Computers, MIS, ERP, performance review software, worksheets etc.
6	<p>Warehouse design and customs clearance</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p>	<ul style="list-style-type: none"> • Design the process layout for different types of goods such as Fast Moving Consumer Goods (FMCG) products, electronics and appliances, automotive and assembly line products, bulk cargo, etc • Detail prioritisation of goods placement location within a warehouse • Describe the precautions and signages to be used while storing hazardous 	Computer, Enterprise Resource Planning (ERP), warehouse design software, inventory models, stationery, SOP etc..

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Corresponding NOS Code LSC/N0111</p>	<p>goods</p> <ul style="list-style-type: none"> Design process, equipment and manpower movement flow in the warehouse Identify the right temperature, humidity and other requirements as per product category Analyse technology feasibility of the proposed designs Support during construction, commissioning and performance reporting of warehouse Detail the coordination requirements with clients, custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc. for customs clearance requirements 	
7	<p>In-plant logistics management</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code LSC/N0116</p>	<ul style="list-style-type: none"> Analyse Material Requirement Plan (MRP), despatch/ Distribution Requirement Plan (DRP), budget for procurement to assess material requirement Prepare indents for material receipt/ procurement Plan workforce, equipment and MHE resources for storage, handling and movement of material Analyse material receipts, documentation and gate passes to approve invoicing Manage inventory count and review stock inspection records Allocate storage locations based on goods volume Manage goods movement between multiple storage locations Assess production, sales and despatch team requirement for material movement Verify transfer orders, despatch orders and material issue in MMS for approving movement 	Computers, Enterprise Resource Planning (ERP), Material Handling Equipment (MHEs), inventory models, stationery, Personal Protective Equipment (PPEs) etc.
8	<p>Forecasting, Planning and Stock keeping</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p>	<ul style="list-style-type: none"> Analyse past trends of material movement Prepare Material Requirement Plan (MRP) based on current requirement for weekly, monthly and quarterly demand Communicate MRP to stakeholders Plan Kanban and Just In Time inventory schedules Assess adequate availability of stock as per Kanban requirements 	Computers, Enterprise Resource Planning (ERP), Material Handling Equipment (MHEs), inventory models, stationery, Personal Protective Equipment (PPEs) etc.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code LSC/N0117	<ul style="list-style-type: none"> Arrange for timely procurement of stock Arrange for disposal or quarantine of old or damaged stock 	
9	Guidelines on integrity and ethics Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code LSC/ N9908	<ul style="list-style-type: none"> Describe the concepts of integrity, ethics Detail the various regulatory requirements related to logistics industry Explain data and information security practices Identify corrupt practices Comply to regulatory requirements Practice code of conduct and etiquettes Document integrity and ethics violations Explain the escalation matrix for reporting deviation 	SOP, worksheets, computer, projector, printer, display board and markers
10	Compliance to health, safety and security norms Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code LSC/N9909	<ul style="list-style-type: none"> Detail health, safety and security procedures in land transport, port terminals, CFS and ICD Implement 5S at workplace Inspect the activity area and equipment, for appropriate and safe conditions Identify unsafe working conditions Inspect adherence to standard operating procedures (SOP) while handling dangerous and hazardous goods Implement standard protocol in case of emergency situations, accidents, and breach of safety Document health, safety and security violations Explain the escalation matrix for reporting deviation 	PPE, MHE, instructional material, alarms, safety guidelines, safety signs, computer, projector etc.
11	GST and its application Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code LSC/N9907	<ul style="list-style-type: none"> Apply GST for invoices State the rules and regulations that are to be followed while applying and reversing GST Identify faults in a document with GST computation Describe the approval process of GST documents Examine pending litigations from previous regime Review monthly returns for compliance to regulations Examine correctness of tax payment records and acknowledgements received 	Laptop, MS office, ERP, stationery, worksheets, computer, projector, GST guidelines etc.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>COMPULSORY NOS:</p> <p>Total Duration 690:00</p> <p>Theory Duration 200:00</p> <p>Practical Duration 490:00</p>	<p>Unique Equipment Required:</p> <p>Teaching board, computer, projector, video player or TV, Management information system (MIS), Enterprise Resource Planning (ERP), performance review software, budgeting and forecasting software, stationery, worksheets, SOP, inventory models, PPE, MHE, instructional material, alarms, safety guidelines, safety signs, GST guidelines etc.</p>	

ELECTIVES (Mandatory to select at least one)

ELECTIVE 1: Automated Warehouse

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Automated warehouse management</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code LSC/N0112</p>	<ul style="list-style-type: none"> Analyse types of products being stored, their volume, turn-around time and other business requirements to design the automated warehouse Assess requirements for automated devices such as Automatic Storage and Retrieval Systems (ASRS), automated racking, Automated Guided Vehicle (AGV), automated packaging system, robotic palletisation and depalletization, product profiling systems, product identification systems and other equipment to be used Propose conveyor, AGV & MHE movement & merging routes Design collision free routes Explain storage racks and pallets selection process Use RFID grid to map the warehouse Explain the standard operating procedures to operate and maintain automated warehouse equipment Detail the maintenance requirements of automated warehouse equipment Perform utilisation analysis of automated warehouse assets Describe automated warehouse redesign process to adapt to changing customer needs Review operational parameters, challenges, accidents, system failures etc. to implement preventive and corrective actions 	<p>Computer, enterprise resource planning (ERP), warehouse design software, inventory models, stationery, SOP, MS Office, bar code readers, pallets, MHE, RFID and its software etc.</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>ELECTIVE 1 : Total Duration</p> <p>Theory Duration 20:00</p> <p>Practical Duration 50:00</p>	<p>Unique Equipment Required: Computer, enterprise resource planning (ERP), warehouse design software, inventory models, stationery, SOP, MS Office, bar code readers, pallets, MHE, RFID and its software etc.</p>	

ELECTIVE 2: Cold Chain Warehouse

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Cold chain warehouse management</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code LSC/N0113</p>	<ul style="list-style-type: none"> Analyse types of products being stored, their volume, turn-around time and other business requirements to design the cold chain warehouse Design warehouse layout and storage location to comply with the various storage and temperature requirements for different products Assess safe storage of refrigerant and gasses (ethylene etc.) Plan for evacuation routes, storage racks, pallets, and other equipment in cold chain warehouse Monitor compliance to temperature, humidity and product handling as per SOP Assess compliance of segregation, sorting, grading and ripening operations as per product requirements and SOP Analyse implementation of HACCP and HAZMAT regulations for different types of goods to provide inputs Describe the operational fitness requirements of various equipment in cold chain warehouse Detail the safety requirements to be followed for various types of products Monitor compliance of reefer vehicle operations to temperature and delivery timelines Prepare reports on cold chain warehouse operational metrics relating to employee operations, work completion status, temperature maintenance, resource utilized, down time etc. 	<p>ERP, MS Office, cold storage facility, temperature control systems, HACCP and HAZMAT guidelines, stationery, demarcation equipment, SOP, computer, projector, worksheets, etc.</p>
	<p>ELECTIVE 2: Total Duration</p>	<p>Unique Equipment Required: ERP, MS Office, cold storage facility, temperature control systems, HACCP and HAZMAT guidelines, stationery,</p>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration 20:00 Practical Duration 50:00	demarcation equipment, SOP, computer, projector, worksheets, etc.	

ELECTIVE 3: Dry Bulk Warehouse

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Dry bulk warehouse management Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code LSC/N0114	<ul style="list-style-type: none"> Analyse product/commodity nature, volume, turn-around time and other business requirements to design the dry bulk warehouse Plan the right storage method based on temperature, humidity and other conditions required Assess storage site based on <ul style="list-style-type: none"> ground condition and suitability cargo size, weight, height and size of stows/heaps electrical installations stack integrity and product flow dynamics arrangements for both operational and emergency situations, traffic, requirements for permanent or movable bulk walls and maintenance cleaning requirements likely vehicle fumes in bulk storage areas other operational units in the vicinity type of equipment going to be deployed Propose layout and routes for safe handling of MHE equipment Plan systems to continuously monitor cargo volume and warehouse utilisation Detail the handling and storage safety requirements to be followed for various types of products Minimise product loss by analysing pest/rodent control measure, spillages/breakages and implementing necessary preventive and corrective actions Prepare reports on dry bulk warehouse operational metrics relating to employee operations, work completion status, resource utilized, down time, spillages etc. 	ERP, MS Office, stationery, demarcation equipment, MHE and conveyor controls, SOP, computer, projector, worksheets, etc.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	ELECTIVE 3: Total Duration Theory Duration 20:00 Practical Duration 50:00	Unique Equipment Required: ERP, MS Office, stationery, demarcation equipment, MHE and conveyor controls, SOP, computer, projector, worksheets, etc.	

ELECTIVE 4: Bonded Warehouse

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Bonded warehouse management Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code LSC/N0115	<ul style="list-style-type: none"> Assess site fitness for bonded warehouse in terms of industrial development, licenses, products handled, turnaround time, etc. Detail the bonded warehouse layout regulations Inspect compliance of design to regulations Propose layout and routes for safe handling of MHE equipment Plan systems to continuously monitor cargo flow and warehouse utilisation Explain the documentation to be maintained in bonded warehouse Prepare bonds for goods stored in warehouse Describe the relationship to be maintained with customs, brokers, transporters, clients, IATA agents, insurance agents etc for timely inspection, customs clearance and delivery of goods Explain dispute resolution and grievance redressal process in-case of any discrepancies in export/import documentation Review operational parameters, challenges, equipment maintenance, asset utilisation, accidents etc to implement preventive and corrective actions Apply opportune changes or updates in accordance to the legal regulations governing bonded warehouse 	ERP, MS Office, stationery, demarcation equipment, SOP, computer, projector, customs documentation, worksheets, etc.
	ELECTIVE 4: Total Duration Theory Duration 20:00	Unique Equipment Required: ERP, MS Office, stationery, demarcation equipment, SOP, computer, projector, customs documentation, worksheets, etc.	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Practical Duration 50:00		

ELECTIVE 5: Multimodal operations

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Multimodal operations management Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code LSC/N1007	<ul style="list-style-type: none"> Assess the multimodal transport requirements for the cargo type Analyse the air, ocean, inland waterway, rail and road routes possible to transport the cargo Plan the sequential multimodal route to be taken based on delivery, timeline and cost considerations Explain multimodal transport plan to stakeholders Assess availability and cost effectiveness of transporters to undertake the movement Describe the coordination activities to be undertaken with port authorities, railways, Inland Container Depot (ICDs), custom officials, airport authority for required clearances, documents and aligning timeliness for trans-shipment Plan resource allocation for various activities Review compliance of activities to timelines, budget and other transportation metrics Assess business and P&L performance to undertaken improvement initiatives 	Computers, Enterprise Resource Planning (ERP), Material Handling Equipment (MHEs), inventory models, routing software, optimisation software stationery, Personal Protective Equipment (PPEs), worksheets, SOP etc.
	ELECTIVE 5: Total Duration Theory Duration 20:00 Practical Duration 50:00	Unique Equipment Required: Computers, Enterprise Resource Planning (ERP), Material Handling Equipment (MHEs), inventory models, routing software, optimisation software stationery, Personal Protective Equipment (PPEs), worksheets, SOP etc.	

ELECTIVE 6: Hub and spoke operations

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Hub and spoke operations management Theory Duration	<ul style="list-style-type: none"> Analyse daily work plan for for execution of hub activities {sorting/ packing/ labelling/ aggregating/ break-bulk/ container loading (Less than Container Load (LCL)/ Full Container 	Computer, Enterprise Resource Planning (ERP), Material Handling

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 20:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code LSC/N1008	Load (FCL)/ forwarding} <ul style="list-style-type: none"> Approve resource allocation based on work plan Discuss dispute resolution procedure with vendors, shippers and other stakeholders Inspect documentation for correctness Review insurance documentation for compliance to requirements Analyse daily reports to undertaken preventive and corrective action 	Equipment (MHEs), inventory models, routing software, optimisation software stationery, Personal Protective Equipment (PPEs), worksheets, SOP etc.
	ELECTIVE 6: Total Duration Theory Duration 20:00 Practical Duration 50:00	Unique Equipment Required: Computer, Enterprise Resource Planning (ERP), Material Handling Equipment (MHEs), inventory models, routing software, optimisation software stationery, Personal Protective Equipment (PPEs), worksheets, SOP etc.	

OPTIONS (Optional to choose any or all or none)

OPTION 1: Bid Process Management

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Bid process management Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code LSC/N9702	<ul style="list-style-type: none"> Describe activities to identify new business proposals Analyse technical requirement of the tender specification as mentioned in the Request for Proposal (RFP) Prepare preliminary feasibility study and cost analysis of the tender based on CAPEX and OPEX requirements Review queries on bid scope with client Describe work allocation to various internal teams for proposal preparation Prepare CAPEX, OPEX, project quote in discussion with engineering, procurement, implementation, operations, HR and finance team Review the proposal for compliance to all tender requirements Discuss the process for client relationship management 	Computer, Enterprise Resource Planning (ERP), MS office, stationery, worksheets, SOP etc.
	OPTION 1: Total Duration Theory Duration 20:00	Unique Equipment Required: Computer, Enterprise Resource Planning (ERP), MS office, stationery, worksheets, SOP etc.	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Practical Duration 50:00		
	<p>GRAND Duration Total</p> <p>Minimum Duration for the QP= <u>760 hrs</u> Theory: <u>220 hrs</u> Practical: <u>540 hrs</u></p> <p>Maximum Duration for the QP= <u>1180 hrs</u> Theory: <u>340 hrs</u> Practical: <u>840 hrs</u></p>	<p>Unique Equipment Required: Teaching board, computer, projector, video player or TV, Management information system (MIS), Enterprise Resource Planning (ERP), performance review software, budgeting and forecasting software, stationery, worksheets, SOP, warehouse design software, routing software, optimisation software, inventory models, PPE, MHE, instructional material, alarms, safety guidelines, safety signs, GST guidelines, MS Office, bar code readers, pallets, MHE, RFID and its software, warehouse design software, cold storage facility, temperature control systems, HACCP and HAZMAT guidelines, demarcation equipment, conveyor controls, customs documentation, etc.</p>	

(This syllabus/ curriculum has been approved by Logistics Sector Skill Council)

Trainer Prerequisites for Job role: “Warehouse, Inventory and Transport Manager” mapped to Qualification Pack: “LSC/Q0105, v1.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “LSC/ Q0105”
2	Personal Attributes	The job requires the individual to have strong communication skills, presentation skills, measuring, evaluating and problem-solving skills. He/she should be able to facilitate learning
3	Minimum Educational Qualifications	Graduate / Diploma/ Class XII/ Class X with relevant experience
4a	Domain Certification	Certified for Job Role: “Warehouse, Inventory and Manager” mapped to QP: “LSC/Q0105, V 1.0”. Minimum accepted score is 80%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q2601”. Minimum accepted score is 80%
5	Experience	<ul style="list-style-type: none"> Graduate with minimum 10 years (with minimum 3 years of experience as Lead) of experience in Warehouse operations (or) Diploma with minimum 15 years (with minimum 3 years of experience as Lead) of experience in Warehouse operations (or) Class XII pass with minimum 20 years (with minimum 3 years of experience as Manager) of experience in Warehouse operations Detailed knowledge of warehouse operations management including goods receipt and dispatch, inventory analysis, maintenance and repair, budgeting, resource management, handling different types of warehouse, business development and stakeholder engagement Has management skills with good knowledge of IT and control systems in Warehousing, and reporting and data management skills The trainer should have the ability to read write and communicate in vernacular language, Hindi and English

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Warehouse, Inventory and Transport Manager
Qualification Pack	LSC/Q0105, v1.0
Sector Skill Council	Logistics Sector Skill Council

Sr. No.	Guidelines for Assessment
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 created 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 center based on this criterion
5	To pass the Qualification Pack, every trainee should score a minimum of 70% in each NOS
6	In case of unsuccessful completion, the trainee may seek re-assessment on the Qualification Pack

Compulsory NOS					
Total Marks: 1000				Marks Allocation	
Assessment Outcomes	Assessment Criteria for Outcomes	Total Marks	Out of	Theory	Skills Practical
LSC/N9601 Conducting daily review and facilitating operations	PC1. review previous day performance reports with supervisors and executives	100	7	2	5
	PC2. plan for completion of pending works		7	2	5
	PC3. escalate any situations which needs the input/ intervention of senior management or client		7	2	5
	PC4. review and approve daily work plan prepared by supervisors, and approve adhoc resources incase of exigencies		5	1	4
	PC5. allocate resources for completion of priority tasks		5	1	4
	PC6. prepare/review weekly work plan		5	2	3
	PC7. monitor and guide subordinates to ensure seamless operations as planned		5	2	3
	PC8. ensure optimal utilisation of all		5	1	4

	assets and resources as per performance targets				
	PC9. provide required support in terms of resources, and process clarifications		5	2	3
	PC10. facilitate resolution with other departments and external parties in case of any escalation or deviation		5	2	3
	PC11. coordinate with clients in cases of delays, pending issues, etc.		5	2	3
	PC12. process improvements and develop their capabilities		5	1	4
	PC13. ensure ERP and Information Technology (IT) tools are being used as per Standard Operating Procedure (SOP)		5	1	4
	PC14. analyse business trends and forecast business		5	1	4
	PC15. prepare budget for resources and assets		3	1	2
	PC16. set-up consensus meetings with peers and seniors and get their approval on the forecast and budgets		3	1	2
	PC17. prepare weekly and monthly work plans as per budget		3	1	2
	PC18. monitor process compliance to relevant state, country and international laws on a periodic basis		3	1	2
	PC19. monitor process compliance to organizational policies and procedures		3	1	2
	PC20. review areas of non-compliance and examine the reasons		3	1	2
	PC21. take corrective and preventive actions to ensure compliance		3	1	2
	PC22. adhere and ensure compliance related to hazardous goods storage and handling regulations		3	1	2
			100	30	70
LSC/N9701 Business development and stakeholder relations	PC1. obtain list of existing clients and new prospects from the company's sales database.	100	7	2	5
	PC2. prepare sales targets and relationship strategies		7	2	5
	PC3. prioritize the clients for contacting, based on the previous relationship building calls made to each of them		6	2	4
	PC4. call clients and prospects to seek meeting		5	2	3
	PC5. meet client to offer new		5	2	3

	services and take feedback for current services				
	PC6. identify client's business need and offer customized and bundled solutions		5	2	3
	PC7. negotiate on costs, close the deal and collect organizational and payment details of the client		5	2	3
	PC8. take client's feedback		5	2	3
	PC9. update information into ERP, inform the relevant departments on sale closure		5	2	3
	PC10. regularly interact with the client over phone, emails or personal visits and quickly respond to their queries		5	2	3
	PC11. address the query raised by the customers effectively and timely		5	2	3
	PC12. take appropriate actions on escalations raised by customers		5	1	4
	PC13. handle customer grievances such as damage or tampering of shipment, extra charges levied, failure to deliver as per commitment, delays etc.		5	1	4
	PC14. provide regular information to clients regarding new offerings, discounts, customised solutions, etc.		5	1	4
	PC15. liaise with customs, Partner Government Agencies (PGAs), other Govt. departments, etc. and build professional relations with them		5	1	4
	PC16. analyse and manage insurance claim requests		5	1	4
	PC17. co-ordinate with marketing agencies for publicity of services of the company		5	1	4
	PC18. negotiate with carriers, warehouse and transport operators, custom brokers, insurance company representatives, vendors, etc. for services, preferential rates, service level agreements (SLA), payment period, etc.		5	1	4
	PC19. co-ordinate with labour contractor and local vendors for sufficient workforce, carrier vehicle availability as per work demand		5	1	4
			100	30	70
LSC/N9602 Review performance and develop performance improvement plan	PC1. analyse activity related performance metrics	100	5	2	3
	PC2. review output reports for escalated cases to identify reasons		5	2	3
	PC3. review asset utilization rates and revenue per manpower		5	2	3
	PC4. analyse trend of defaults, delays, etc. along with their		5	2	3

	reasoning			
	PC5. analyse the trends of various output metrics like average time per case, average number delays per week, etc. to measure operational performance	4	1	3
	PC6. analyse reasons for non-performance with respect to each operation and department	4	1	3
	PC7. identify process improvement areas and departments	4	1	3
	PC8. identify training needs and develop training plans	4	1	3
	PC9. analyse resource utilization trends to arrive at cases of under-utilization and poor equipment management	4	1	3
	PC10. examine staff turnover issues	4	1	3
	PC11. identify the department and staffs that are underperforming and take necessary actions to improve performance	4	1	3
	PC12. prioritise performance improvement project implementation	4	1	3
	PC13. develop strategic action plans to increase overall worker and operational efficiency	4	1	3
	PC14. communicate performance improvement benefits to senior management and take their approval	4	1	3
	PC15. establish key performance indicators, track regular performance output with respect to set goals and take corrective actions	4	1	3
	PC16. address all employee performance problems promptly and directly in accordance with personnel policies	4	1	3
	PC17. take necessary action in case of theft or fiddling with the shipment	4	1	3
	PC18. develop, implement, and manage departmental policies, procedures, standards and strategies as required	4	1	3
	PC19. set objectives and provide support to team members	4	1	3
	PC20. communicate and emphasise on policies and standards in line with the regulations laid down by various governing Acts	4	1	3
	PC21. Guide and support them to cope with work load	4	1	3
	PC22. conduct meetings with staff to assess group's overall performance; discuss ideas for improvement and inform staff of new developments	4	1	3
	PC23. support team members in	4	2	2

	identifying, developing and implementing new ideas				
	PC24. direct the hiring, training, and performance evaluations of staff		4	2	2
			100	30	70
LSC/N9603 Profit and Loss account management and cost accounting	PC1. review department wise budgets and make amendments if required	100	8	2	6
	PC2. collate and prepare annual budgets along with sales and profit targets		8	2	6
	PC3. schedule both capital and operational expenses accordance to the budget		7	2	5
	PC4. analyse and review the P&L performance for the unit		7	2	5
	PC5. analyse profitability and business performance trends department wise		7	2	5
	PC6. periodically analyse variances in the expenditure with respect to the budget and accordingly take corrective actions		7	2	5
	PC7. periodically analyse the physical output and performance with respect to the budget and identify places for improvements		7	2	5
	PC8. undertake adequate risk management so as to meet Key Performance targets		7	2	5
	PC9. manage and control budgets of different departments on a periodic basis to optimise financial performance		7	2	5
	PC10. periodically review activity and department financial performance		7	2	5
	PC11. identify the activities having high variance with respect to the budgeted costs or the forecasted revenue		7	2	5
	PC12. analyse the actual cost w.r.t physical output to draw inferences		7	2	5
	PC13. identify reasons in discussion with department and take remedial and corrective actions where-ever required		7	3	4
	PC14. work towards rationalizing the cost of the activity wise operations to achieve higher financial goals		7	3	4
					100
LSC/N0111 Support in warehouse layout design and customs clearance	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	100	8	2	6

	products, bulk cargo, etc.				
	PC2. design the process layout, based on the storage requirement of each type of product		8	2	6
	PC3. ensure stock of fast moving goods are placed near the loading and unloading bays, and slow-moving products at higher levels		7	2	5
	PC4. ensure different categories of items are stored in respective places with necessary precautions for storage and retrieval		7	2	5
	PC5. ensure hazardous goods are stored as per their storage Standard Operating Procedure (SOP) requirement and appropriate signage's are available		7	2	5
	PC6. ensure products are stored at the prescribed temperature levels		7	2	5
	PC7. map process flow routes for movement of equipment and personnel within warehouse		7	2	5
	PC8. coordinate with technology team in warehouse design and test-run		7	2	5
	PC9. evaluate the technology feasibility of proposed design		7	2	5
	PC10. assist top management with performance reporting of new design/processes		7	2	5
	PC11. be instrumental during the construction, erection and commissioning of the warehouse and provide the necessary inputs		7	2	5
	PC12. coordinate with custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance		7	2	5
	PC13. coordinate with customs officers for timely shipment clearance based on documents for clearance		7	3	4
	PC14. coordinate with clients in cases of delays, product issues, and custom related documentation issues etc.		7	3	4
	100	30	70		
LSC/N0116 Manage in-plant	PC1. review Material Requirement Plan (MRP) for weekly, monthly, quarterly requirements in coordination with materials department	100	7	2	5
	PC2. review despatch plan/ Distribution Requirement Plan (DRP) for the weekly, monthly and quarterly periods in coordination with		7	2	5

	sales/despatch department				
	PC3. analyse budget vis-v-vis actual procurement		6	2	4
	PC4. raise indent to the materials department for required items		5	1	4
	PC5. plan for material handling & transport vehicles based on the day's load for receipt and storage		5	1	4
	PC6. approve inbound receipts, deliveries, gate passes		5	1	4
	PC7. assist accounts department in approving invoices		5	1	4
	PC8. inspect inbound vehicle report regarding material damages, accidents, etc.		5	1	4
	PC9. allocate labour and resources for unloading materials and transfer of stock to right storage location		5	1	4
	PC10. review the inspection report for the inbound stock		5	1	4
	PC11. review and approve supervisors request for storage locations		5	1	4
	PC12. approve transfer order in Material Management System (MMS) to manage stock between multiple storage locations		5	2	3
	PC13. conduct an inventory count and update the same in the ERP system		5	2	3
	PC14. coordinate with production department for in-plant material requirement		5	2	3
	PC15. coordinate with sales/despatch department during material/finished goods/items movement for dispatch		5	2	3
	PC16. approve the list of quantities for despatch after assessing the physical quantity for each material present in the warehouse vis-à-vis the requirement		5	2	3
	PC17. approve transfer orders, despatch orders and material issue approvals in MMS		5	2	3
	PC18. review material despatch orders and allocate labour and MHEs for transfer of the material to the desired department/location		5	2	3
	PC19. conduct periodic wall to wall inventory check and update the ERP		5	2	3
			100	30	70
LSC/N0117 Forecasting, planning and stock keeping	PC1. analyse past trends of material movement and generate Material Requirement Plan (MRP) based on current requirement for weekly, monthly and quarterly demand	100	15	5	10

	PC2. conduct review meetings with production, sales and distribution departments to finalise the forecast and requirement plans		15	5	10
	PC3. conduct regular inventory count update ERP		14	4	10
	PC4. plan KANBAN and just in time inventory for daily requirement		14	4	10
	PC5. review stocks to ensure adequate stock of all items are available and review if KANBAN cards are being changed		14	4	10
	PC6. in case of shortages coordinate for timely procurement		14	4	10
	PC7. Make necessary arrangements for disposal or quarantine of old or damaged stocks for replacement		14	4	10
			100	30	70
LSC/N9908 Maintain and monitor integrity and ethics in operations	PC1. refrain from indulging in corrupt practices	100	8	3	5
	PC2. protect customer's information and ensure acquired information is not used for personal advantage		8	3	5
	PC3. protect data and information related to business or commercial decisions		8	3	5
	PC4. sensitise the work force towards ethical behaviour in work place and performing job with integrity		8	3	5
	PC5. conduct regular reviews and check reports for unethical behaviour and corrupt practices		8	3	5
	PC6. consult senior management when in an ethical dilemma		8	3	5
	PC7. report promptly all violations of code of ethics		8	3	5
	PC8. dress up and conduct in a professional manner		8	3	5
	PC9. communicate with clients and stakeholders in a soft and polite manner		8	3	5
	PC10. follow etiquettes		8	3	5
	PC11. check that that documentation with respect to operations is up to date and in accordance to the regulations		8	4	4
	PC12. coordinate with regulatory authorities and assist in inspections and clearances		6	3	3
	PC13. report any issues with regulatory compliance		6	3	3
			100	40	60
LSC/N9909 Follow and monitor	PC1. make note of all safety processes with reference to area of operation	100	6	2	4

health, safety and security procedures	PC2. wear all PPE such as goggles, ear plugs, helmet, mask, shoes, etc. as applicable		6	2	4
	PC3. follow organizational protocol to deploy action in case of signs of any emergency situation or accident or breach of safety		6	2	4
	PC4. undertake periodical preventive health check ups		5	2	3
	PC5. follow necessary standard operating procedures (SOP) and precautions while handling dangerous and hazardous goods		6	2	4
	PC6. follow security procedures like green gate in port, customs area, factory security, etc.		6	2	4
	PC7. comply with data safety regulations of the organisation		5	3	2
	PC8. instruct the loaders / unloaders to follow standard safety procedures while handling hazardous / fragile cargo and to walk only on the designated pathway		6	2	4
	PC9. recognise unsafe conditions and safety practices at the workplace and report it to concerned authority		6	2	4
	PC10. implement 5S at workplace		6	2	4
	PC11. inspect the activity area and equipment for appropriate and safe condition		6	2	4
	PC12. check if stacking is done at defined height and is not on the walk way		6	2	4
	PC13. check if walk way is free from grease/ oil		6	3	3
	PC14. check if emergency fire alarms, water sprinklers and smoke detectors are installed at all places		6	3	3
	PC15. participate in fire drills		6	3	3
	PC16. check if standard material handling procedure are being followed		6	3	3
	PC17. check if cargo has passed security checks and report in case of any violation		6	3	3
			100	40	60
LSC/N9907 Verify and review GST application	PC1. verify and approve daily invoicing	100	8	3	5
	PC2. check for errors in calculating taxable value and tax value after applying applicable rate of GST		8	3	5
	PC3. check if that Integrated Goods and Services Tax (IGST) is chargeable on the invoices raised for export of goods/services		8	3	5

	PC4. check if GST is payable under reverse charge in case of unregistered party	8	3	5
	PC5. verify and approve separate notification in case of exemption	8	3	5
	PC6. review and approve vendor invoices and ensure that all the mandatory particulars are mentioned on the invoice	8	3	5
	PC7. verify if the goods/services are procured from registered vendor	6	3	3
	PC8. check for pending litigation cases under earlier regime	8	3	5
	PC9. review sales invoice and check if record is maintained properly	8	3	5
	PC10. coordinate with finance department for any updating in GST law	8	3	5
	PC11. check that the payment received from the client is including applicable taxes	6	3	3
	PC12. assist in verifying and reviewing monthly returns	8	3	5
	PC13. monitor maintenance record of taxes paid and acknowledgment of the returns filed	8	4	4
		100	40	60

Electives					
Elective 1 - Automated warehouse					
Total Marks – 100				Marks allocation	
Assessment outcomes	Assessment Criteria for outcomes	Total marks	Out of	Theory	Skills Practical
LSC/N0112 Automated warehouse operations	PC1. understand the types of products being stored, their volume, turn-around time and other business requirements of the warehouse	100	8	2	6
	PC2. coordinate with designers to design the entire overall layout of automated warehouse considering the business and operational requirement		8	2	6
	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 depalletization, product profiling systems, product identification systems and other equipment to be used		7	2	5
	PC4. provide inputs for design of conveyor movement incorporating horizontal and		7	2	5

	vertical movement, merging of conveyors, and sorting systems				
	PC5. suggest routes for movement of AGV and other Material Handling Equipment (MHE)		7	2	5
	PC6. ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision free movement		7	2	5
	PC7. assist in design and selection of storage racks and pallets to ensure easy access by automated equipment		7	2	5
	PC8. support in designing the grid of Radio frequency identification (RFIDs), and bar codes to map the entire warehouse		7	2	5
	PC9. ensure correct usage of automated and computerised systems as per Standard Operating Procedure (SOP)		7	2	5
	PC10. conduct regular inspection to ensure that all equipment is functional		7	2	5
	PC11. supervise the maintenance of automated warehouse equipment		7	2	5
	PC12. ensure maximum utilisation of warehouse assets		7	2	5
	PC13. provide inputs for re-design of automated warehouse equipment in case of change in process/product		7	3	4
	PC14. conduct regular review regarding challenges being faced, accidents, system failures, etc.		7	3	4
			100	30	70
Elective 2 - Cold chain					
Total Marks - 100				Marks allocation	
Assessment outcomes	Assessment Criteria for outcomes	Total marks	Out of	Theory	Skills Practical
LSC/N0113 Cold chain operations	PC1. understand the types of products being stored, their volume, turn-around time and other business requirements of the cold chain warehouse	100	7	2	5
	PC2. coordinate with designers to design the entire overall layout and provide inputs for storage space allocation based on type of goods and temperature requirements and material handling requirements		7	2	5
	PC3. ensure safe storage of refrigerant and gasses (ethylene etc.) are stored in a safe manner and adequate evacuation routes are provided for movement of perishable goods		7	2	5
	PC4. support in designing of storage racks, pallets and pathway within warehouse		7	2	5
	PC5. support selection of appropriate equipment/ machines to be deployed in the warehouse		7	2	5
	PC6. ensure ambient temperature and		5	2	3

	handling precautions are adhered to as per Standard operating procedure (SOP) for various perishable products				
	PC7. adhere to pre-cooling temperature and storage conditions		5	2	3
	PC8. ensure compliance to safe handling, loading/unloading of goods		5	2	3
	PC9. verify goods documentation for correctness, accuracy and take necessary action to rectify any deviations		5	2	3
	PC10. ensure compliance to segregation, sorting, grading, packing, temperature maintenance, coordinate with supervisor for any deviation		5	2	3
	PC11. conduct regular check up of the ripening chamber/ cold storage areas and ensure proper documentation is done at every stage		5	2	3
	PC12. ensure compliance to Hazard Analysis and Critical Control Points (HACCP), Hazardous Material (HAZMAT) and other regulatory requirements		5	1	4
	PC13. verify operational fitness of cold chain storage at regular interval that could affect product safety and personnel safety or any other emergencies		5	1	4
	PC14. check that contaminated goods are quarantined as per SOP		5	1	4
	PC15. verify implementation of cleaning schedule for all equipment and machines is followed		5	1	4
	PC16. coordinate with reefer vehicle operators to ensure maintenance of appropriate temperature in the vehicles		5	1	4
	PC17. review employee operational metrics reports		5	1	4
	PC18. prepare periodic reports on operations such as work completion status, resource utilized, down time etc.		5	2	3
			100	30	70
Elective 3 – Dry Bulk warehouse					
Total Marks - 100			Marks allocation		
Assessment outcomes	Assessment Criteria for outcomes	Total marks	Out of	Theory	Skills Practical
LSC/N0114 Dry Bulk warehouse operations	PC1. understand the types of products/commodity being stored, their volume, turn-around time (TAT) and other business requirements of the warehouse	100	8	2	6
	PC2. select the right kind of storage method as per the product/commodity type to maintenance of temperature, humidity and other storage conditions		8	2	6
	PC3. ensure fitness of site for dry bulk warehouse operations in terms of: a. ground condition and suitability		6	1	5

	b. cargo size, weight, height and size of stows/heaps c. electrical installations d. stack integrity and product flow dynamics e. arrangements for both 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 to be deployed				
	PC4. coordinate with designers to design the entire overall layout of the warehouse		6	1	5
	PC5. provide inputs for layout and usage of Material Handling Equipment's (MHEs) and other equipment to be used		6	2	4
	PC6. ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision free movement		6	2	4
	PC7. support development of systems to monitor the storage of cargo and tracking of capacity utilisation		6	2	4
	PC8. ensure compliance of warehouse to dangerous goods handling		6	2	4
	PC9. check periodically on the safety of the stored products, and take necessary preventive action		6	2	4
	PC10. contain product loss to a minimum by ensuring adequate pest/rodent control measure, monitoring spillages/breakages and taking necessary preventive and corrective action		6	2	4
	PC11. continuously monitor weight and volume metrics to ensure adequate storage in different locations		6	2	4
	PC12. conduct regular inspection to ensure that all equipment are functional		6	2	4
	PC13. conduct regular review regarding challenges being faced, accidents, system failures, etc.		6	2	4
	PC14. review daily operation reports w.r.t storage space utilization		6	2	4
	PC15. supervise maintenance activities of warehouse systems and equipment		6	2	4
	PC16. prepare periodic reports for top management on warehouse performance		6	2	4
			100	30	70
Elective 4 - Bonded warehouse					
Total Marks - 100				Marks allocation	
Assessment outcomes	Assessment Criteria for outcomes	Total marks	Out of	Theory	Skills Practical
LSC/N0115 Bonded warehouse	PC1. evaluate site fitness for bonded warehouse in terms of: a. industrial development of the proposed	100	8	2	6

operation	area for availability of importers and exporters b. warehouses are to be appointed/licensed at designate places as per govt requirements c. understand the types of products being stored, their volume, turn-around time and other business requirements of the warehouse				
	PC2. coordinate with designers to design the entire overall layout of the warehouse in accordance with bonded warehouse regulations		8	2	6
	PC3. provide inputs for layout and usage of Material Handling Equipment (MHEs) and other equipment to be used		8	2	6
	PC4. support development of systems to monitor the storage of cargo and tracking of capacity utilisation		8	2	6
	PC5. design location of storage racks and pallets for ease of movement and operation		8	2	6
	PC6. maintain a documented record of all movements (merchandise received and shipped) made in the warehouse		6	2	4
	PC7. issue bond to the customer for the placement of goods in the warehouse		6	2	4
	PC8. draft and present regular reports of goods movements in the bonded warehouse to the Customs Authorities		6	2	4
	PC9. coordinate with customs officials, customs brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance		6	2	4
	PC10. interact with customs and take necessary action to release goods seized by customs by providing the required documentation and other inputs		6	2	4
	PC11. address client queries and grievances immediately and take necessary corrective and preventive action		6	2	4
	PC12. apply opportune changes or updates in accordance to the legal regulations governing bonded warehouse		6	2	4
	PC13. conduct regular review regarding challenges being faced, accidents, system failures, etc.		6	2	4
	PC14. review daily operation reports w.r.t storage space utilization PC15. supervise maintenance activities of warehouse systems and equipment		6	2	4
			100	30	70
Elective 5 - Multi modal operations					
Total Marks - 100				Marks allocation	
Assessment	Assessment Criteria for outcome	Total	Out of	Theory	Skills

outcomes		marks			Practical
LSC/N1007 Multi modal hub operations	PC1. understand the feasibility for multimodal transportation based on client's requirement	100	8	2	6
	PC2. check for availability of multimode transportation (air, ocean, inland waterway, rail, and road) with service providers, based on product nature		8	2	6
	PC3. plan the sequential movement of goods through various modes of transportation based on timeline and priority requirements		8	2	6
	PC4. detail the plan to supervisors for execution and clarify doubts if any		8	2	6
	PC5. connect with various mode of transporters to understand their capacity and availability for trans-shipment needs		8	2	6
	PC6. coordinate with other stakeholders like port authorities, railways, Inland Container Depot (ICDs), custom officials, airport authority for required clearances, documents and aligning timeliness for trans-shipment		8	2	6
	PC7. allocate work to supervisors based on priority and review daily operations through ERP and site inspections		6	3	3
	PC8. review and approve cross docking requests		8	2	6
	PC9. inspect transport centre including interchange zones/facilities for cleanliness and also check for inventory handling, availability of resources, maintenance of different MHEs etc.		8	2	6
	PC10. approve request for additional or alternate resources to ensure timeliness		8	2	6
	PC11. resolve queries of supervisors and handle escalations related to inventory damage, claims management, MHE repairs, accidents etc.		6	3	3
	PC12. analyse daily reports to check operational performance in terms of efficiency, utilisation, errors, damages, etc.		8	3	5
	PC13. extract information on business performance involving P&L analysis, turnover performance, etc.		8	3	5
			100	30	70
Elective 6 - Hub and spoke operations					
Total Marks - 100				Marks allocation	
Assessment outcomes	Assessment Criteria for outcome	Total marks	Out of	Theory	Skills Practical
LSC/N1008 Hub and spoke transport operations	PC1. plan various activities to be executed at the hub and its associated warehouses	100	15	5	10
	PC2. discuss and approve daily workplan prepared by supervisors for execution of hub activities {sorting/ packing/ labelling/ aggregating/ break-bulk/ container loading -		15	5	10

	Less than Container Load (LCL)/ Full Container Load (FCL) / forwarding)				
	PC3. coordinate with vendors, shippers and other stakeholders for timely action and resolution of disputes		14	4	10
	PC4. review and approve documentation for claims against damaged goods		14	4	10
	PC5 .coordinate with clients in cases of delays		14	4	10
	PC6. approve request for additional or alternate resources based on the need		14	4	10
	PC7. analyse daily reports on various hub activities and undertake preventive and corrective action		14	4	10
			100	30	70

Options					
Option 1 - Bid process					
Total Marks - 100			Marks allocation		
Assessment outcomes	Assessment Criteria for outcome	Total marks	Out of	Theory	Skills Practical
LSC/N9702 Bid process management	PC1. search and identify new opportunities for business development	100	10	3	7
	PC2. analyse the technical requirement of the tender specifications mentioned in the Request for Proposal (RFP) with respect to organisational capacity and credentials		10	3	7
	PC3. conduct preliminary feasibility study and cost analysis of the tender, factoring in various heads of Capital expenditure (CAPEX), Operating expense (OPEX) and the timelines for the project		8	2	6
	PC4. clarify any doubts in the bidding processes or scope with the client		8	2	6
	PC5. based on initial evaluation obtain confirmation from management for participation in tendering process		8	2	6
	PC6. generate proposal responsibility by allocating work and gaining commitment from individuals responsible for specific sections/questions		8	2	6
	PC7. coordinate with internal departments viz., engineering, procurement, implementation, operations, Human Resources (HR), finance and legal team for proposal preparation		8	2	6
	PC8. coordinate with engineering, procurement, implementation, operations, HR and finance team to arrive at the quote		8	2	6
	PC9. prepare the CAPEX and OPEX budget for the tender and get an approval from the management		8	3	5
	PC10. ensure all services are included in the final price to the customer		8	3	5

	PC11. complete the bid document in a timely manner, cross verify with bid checklist and submit the bid on time		8	3	5
	PC12. follow up with client for any additional information or support requirement		8	3	5
			100	30	70