Model Curriculum

Model Curriculum

QP Name: Purchase Executive - Construction

QP Code: ICE/CON/Q0901

QP Version: 1.0

NSQF Level: 3.5

The Institution of Civil Engineers Society Suncity Trade Tower, 309-310, Sector 21, Gurugram, Haryana 122016

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Training Parameters

Sector	Construction
Sub-Sector	Real estate and infrastructure Construction
Occupation	Procuring goods, materials and services
Country	India
NSQF Level	3.5
Aligned to NCO/ISCO/ISIC Code	NCO/2015/3323.0600 - Purchasing Agent / Executive
Minimum Educational Qualification and Experience	**10th grade pass** | **Previous relevant Qualification of NSQF Level-3** | 1.5-year relevant experience in in-store keeping/ procurement
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 years
Last Reviewed On	NA
Next Review Date	08/05/2028
NSQC Approval Date	08/05/2025
QP Version	1.0
Model Curriculum Creation Date	08/05/2025
Model Curriculum Valid Up to Date	08/05/2028
Model Curriculum Version	1.0
Minimum Duration of the Course	450 Hours, 0 Minutes
Maximum Duration of the Course	450 Hours, 0 Minutes

Program Overview

Training Outcomes

- Efficiently source and procure construction materials that meet project specifications.
- Maintain strong relationships with suppliers and ensure timely delivery of materials.
- Manage inventory to minimize costs and avoid stockouts.
- Ensure compliance with procurement processes and quality standards.
- Optimize procurement operations to align with project timelines and budget.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
ICE/CON/N0701: Carry out material sourcing and procurement activities **NOS Version No. 1.0** **NSQF Level 3.5**	**25:00**	**35:00**	**00:00**	**00:00**	**60:00**
Module 1: Introduction to the Construction Industry and the Role of a Purchase Executive in Material Procurement	03:00	00:00	00:00	00:00	03:00
Module 2: Supplier Sourcing, Screening, and Selection for Construction Materials	12:00	15:00	00:00	00:00	27:00
Module 3: Procurement Operations and Contract Specifications for Construction Materials	10:00	20:00	00:00	00:00	30:00
ICE/CON/N0901: Establish and maintain supplier relationships **NOS Version No. 1.0** **NSQF Level 3.5**	**25:00**	**45:00**	**20:00**	**00:00**	**90:00**

Module 4: Supplier Development and Evaluation	12:00	22:00	10:00	00:00	44:00
Module 5: Supplier Collaboration, Coordination, and Timelines.	13:00	23:00	10:00	00:00	46:00
ICE/CON/N0902: Perform inventory control, receiving and tracking operations. NOS Version No. 1.0 NSQF Level 3.5	**20:00**	**50:00**	**20:00**	**00:00**	**90:00**
Module 6: Carry out Inventory Planning and Control	6:00	16:00	07:00	00:00	29:00
Module 7: Inventory Management Systems and Material tracking	7:00	17:00	07:00	00:00	31:00
Module 8: Carry Sub-functions of the Material Control Department	7:00	17:00	06:00	00:00	30:00
ICE/CON/N0903: Assist Production and workflow (Related to material availability) NOS Version No. 1.0 NSQF Level 3.5	**20:00**	**50:00**	**20:00**	**00:00**	**90:00**
Module 9: Maintain Quality Control, Compliance and Cost Management	7:00	17:00	06:00	00:00	30:00
Module 10: Coordinating Material Purchase to Support Production Needs	7:00	17:00	07:00	00:00	31:00
Module 11: Carry Inventory and Demand Forecasting	6:00	16:00	07:00	00:00	29:00
ICE/CON/N0904:Maintain Health and Safety in Procurement Activities NOS Version No. 1.0 NSQF Level 3.5	**20:00**	**40:00**	**00:00**	**00:00**	**60:00**
Module 12: Adhere to Health and Safety protocols	20:00	40:00	00:00	00:00	60:00

DGT/VSQ/N0102 – Employability skills NOS Version No. 1.0 NSQF Level 2	**60:00**	**00:00**	**00:00**	**00:00**	**60:00**
Module 13: Employability skills	60:00	00:00	00:00	00:00	60:00
Total Duration	**170:00**	**220:00**	**60:00**	**00:00**	**450:00**

Module Details

Module 1: Introduction to the Construction Industry and the Role of a Purchase Executive in Material Procurement

Mapped to ICE/CON/N0701:, v.1

Terminal Outcomes:

- State the vision and objectives of the sector.
- Describe the background of construction in India.
- Explain the attributes, role and responsibilities of the Purchase Executive - Construction Material.

Duration: *03:00*	**Duration:** *00:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the objectives of the program on the Purchase Executive - Construction Material • Discuss the key components and stakeholders of the construction sector, including developers, contractors, suppliers, and regulatory bodies, and their roles in a construction project. • Discuss the core responsibilities of a Purchase Executive in the construction sector, focusing on material procurement, supplier management, inventory control, and cost management to ensure project efficiency and quality. • Identify and categorize various types of construction materials (e.g., aggregates, cement, steel, wood, and finishing materials) and understand their uses, characteristics, and importance in different stages of construction projects. • Explain the principles of supply chain management specific to the construction industry, including procurement strategies, logistics, inventory management, and the impact of lead times and supplier relationships on project timelines. • Discuss the legal, regulatory, and compliance standards relevant to the procurement of construction materials,	

including environmental regulations, safety standards, and quality certifications necessary to ensure adherence to industry norms and project specifications.	
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements	
N/A	

Module 2: Supplier Sourcing, Screening, and Selection for Construction Materials

Mapped to ICE/CON/N0701:, v.1

Terminal Outcomes:

- Accurately identify and source construction materials that meet project requirements.
- Evaluate suppliers to select the best value for money

Duration: *12:00*	**Duration**: *15:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Elaborate the construction material requirements based on project specifications. • Discuss how to conduct market research to identify potential suppliers. • Describe supplier evaluation criteria, including price, quality, delivery time, and reliability. • Explain the process of comparing supplier quotations and technical specifications. • Describe the principles of material selection based on comprehensive evaluation. • Assess material needs as per project specs, compare vendor quotations, select the best option, and complete GeM portal registration for procurement	• Conduct basic research to identify suppliers for the required construction materials. • Evaluate and compare supplier quotations using a sample case. • Prepare a straightforward supplier comparison report tailored to project requirements. • Conduct mock interviews to assess supplier reliability and material quality. • Role-play the material selection process based on supplier offerings.
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements:	
• Computer with internet access • Procurement software • Communication devices (phone, email) • Stationery (notebooks, pens) • Software for Tracking Materials and Procurement • Digital camera for recording supplier facilities	

Module 3: Procurement Operations and Contract Specifications for Construction Materials

Mapped to ICE/CON/N0701:, v.1

Terminal Outcomes:

- Efficiently manage the procurement process from purchase order issuance to contract negotiation.
- Maintain accurate procurement records and ensure supplier adherence to contracts.

Duration: *10:00*	**Duration:** *20:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand the process of preparing and issuing purchase orders. • Learn negotiation principles and basic contract law for effective procurement. • Comprehend the steps involved in monitoring purchase order fulfillment and delivery schedules. • Study the importance of maintaining accurate and up-to-date procurement records. • Gain knowledge of different types of construction materials and their common applications. • Identify key clauses in material supply contracts and their implications. • Understand how to verify supplier compliance with contract terms and quality standards. • Learn how to handle delays, disputes, or changes in supply agreements. • Explore procurement budgeting and cost control methods. • Understand procurement risks and mitigation strategies in construction projects. • Familiarize with ethical procurement practices and anti-corruption measures. • Use procurement software or templates to streamline ordering and tracking.	• Draft a purchase order for a sample project, ensuring accuracy in quantity, price, and terms. • Simulate a negotiation session with suppliers to achieve optimal pricing and terms. • Develop a monitoring plan to track purchase order fulfillment. • Practice maintaining and organizing procurement records and documentation. • Conduct a quality control check for received materials. • Match delivery notes with purchase orders to confirm correct deliveries. • Identify and report issues with delayed or damaged material deliveries. • Fill out a basic material inspection checklist during delivery.

• Learn how to coordinate with inventory and site teams for timely material delivery.	

Classroom Aids:
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.

Tools, Equipment and Other Requirements:
• Computer with internet access • Procurement software • Communication devices (phone, email) • Stationery (notebooks, pens) • Software for Tracking Materials and Procurement • Digital camera for recording supplier facilities

Module 4: Supplier Development and Evaluation

Mapped to ICE/CON/N0901:, v.1

Terminal Outcomes:

- Efficiently manage and update a supplier database.
- Conduct thorough supplier performance evaluations.
- Develop supplier capabilities through targeted initiatives.
- Resolve supplier issues to maintain procurement process flow.

Duration: *12:00*	**Duration**: *22:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance and methods of maintaining a supplier database. • Understand key performance metrics for supplier evaluation. • Discuss strategies for supplier development and capacity building. • Identify common supplier-related issues and methods for resolution. • Understand the principles and practices of corrective actions in supplier management. • earn how to conduct basic supplier audits and site visits. • Create and use a simple supplier evaluation checklist. • Understand the role of communication in building long-term supplier relationships. • Recognize the importance of ethical standards in supplier interactions. • Maintain records of supplier performance for future reference and decisions.	• Demonstrate the process of creating and updating a supplier database using relevant software tools. • Conduct a mock supplier performance evaluation using predefined metrics. • Develop a supplier improvement plan based on evaluation outcomes. • Resolve a simulated supplier-related issue using a structured approach. • Create a case study on supplier development initiatives and present findings. • Engage in role-playing exercises to simulate negotiations for supplier development. • Practice implementing corrective actions through scenario-based exercises.
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements:	

- Supplier database management tools (e.g., Excel, Google Sheets)
- Performance evaluation templates and checklists
- Case study materials and role-play scenarios
- Video conferencing tools for supplier meetings (e.g., Zoom, MS Teams)
- Presentation software (e.g., PowerPoint, Google Slides)
- Training manuals and guides for supplier development programs

Module 5: Supplier Collaboration, Coordination, and Timelines.

Mapped to ICE/CON/N0901, v.1

Terminal Outcomes:

- Establish and maintain strong supplier relationships.
- Effectively communicate project needs to suppliers.
- Foster a collaborative environment through regular engagement.
- Implement recognition programs to enhance supplier partnerships.

Duration: *13:00*	**Duration**: *23:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the importance of building strong relationships with suppliers. • Explain effective communication techniques for sharing project requirements. • Understand the value of regular supplier meetings and feedback sessions. • Identify the components of a successful supplier recognition program. • Discuss the role of collaboration in improving supplier performance. • Discuss the importance of adhering to timelines. • Learn how to resolve misunderstandings or conflicts with suppliers professionally. • Understand the impact of transparency and trust on long-term partnerships. • Practice writing clear and respectful emails or messages to suppliers. • Recognize the value of cultural awareness when dealing with diverse suppliers. • Discuss how mutual goal setting can lead to better project outcomes.	• Simulate supplier meetings to practice effective communication and problem-solving. • Develop a communication plan for sharing project information with suppliers. • Conduct a role-playing exercise to practice negotiation and collaboration skills. • Create a feedback loop system to regularly assess and address supplier concerns. • Design a supplier recognition program based on performance metrics and outcomes. • Participate in a workshop on relationship-building techniques with suppliers. • Draft a supplier communication strategy document incorporating best practices.
Classroom Aids:	

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.
Tools, Equipment and Other Requirements:
• Communication software (e.g., Slack, MS Teams) • Project management tools (e.g., Trello, Asana) • Templates for meeting agendas and minutes • Recognition program design guides and templates • Feedback and survey tools (e.g., Google Forms, SurveyMonkey) • Role-play scripts and scenarios for supplier negotiations • Training materials on communication and relationship management

Module 6: Carry out Inventory Planning and Control.

Mapped to ICE/CON/N0902: , v.1

Terminal Outcomes:

- Develop a comprehensive understanding of inventory control policies and procedures.
- Demonstrate the ability to determine optimal inventory levels to balance supply and demand.
- Conduct regular inventory audits to maintain stock accuracy and minimize discrepancies.

Duration: *06:00*	**Duration:** *16:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of inventory control in supply chain management. • Understand the principles of demand forecasting and its impact on inventory levels. • Discuss the concept of carrying costs and their influence on inventory management. • Outline the steps involved in developing and implementing inventory control policies and procedures. • Learn the methods for conducting inventory audits and resolving discrepancies. • Identify different types of inventory systems (e.g., periodic vs. perpetual, manual vs. digital) and select appropriate systems for specific projects. • Understand the role of inventory turnover rate in measuring the efficiency of material usage. • Learn how to classify materials using ABC analysis for prioritizing inventory control efforts. • Study the process of setting minimum and maximum stock levels to avoid stockouts and overstocking. • Practice using basic inventory tracking	• Develop an inventory control policy document based on given case scenarios. • Use demand forecasting techniques to calculate optimal inventory levels. • Analyze a dataset to adjust inventory levels and prevent stockouts or excess inventory. • Perform a mock inventory audit to identify discrepancies and suggest corrective actions. • Implement a continuous improvement plan for inventory management practices. • Create a simulation to adjust stock levels dynamically in response to demand changes. • Conduct a role-play on addressing discrepancies discovered during inventory audits.

tools (e.g., spreadsheets or inventory management software) to record and monitor stock levels. • Understand the link between inventory control and procurement planning to ensure timely material availability. • Discuss the importance of real-time data in improving inventory visibility and decision-making. • Explore basic strategies to manage slow-moving, obsolete, or excess inventory.	

Classroom Aids:

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.

Tools, Equipment and Other Requirements:

- Inventory management software (e.g., SAP, Oracle)
- Spreadsheets for demand forecasting and carrying cost analysis
- Barcode scanners
- Sample inventory datasets
- Audit checklists
- Case study documents
- Mock inventory stock (for audit simulations)

Module 7: Inventory Management Systems and Material tracking

Mapped to ICE/CON/N0902, v.1

Terminal Outcomes:

- Utilize inventory management systems effectively to optimize stock levels and turnover rates.
- Implement technological tools like barcodes and RFID for enhanced inventory tracking.
- Generate and interpret inventory reports to inform strategic decision-making.

Duration: *07:00*	**Duration:** *17:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the functionalities of inventory management software in construction material procurement. • Understand the benefits and limitations of barcode and RFID technology in inventory tracking. • Learn how to generate different types of inventory reports (e.g., turnover, stock status). • Analyze inventory data to identify trends and potential areas for cost savings. • Discuss the importance of timely and accurate reporting in inventory management. • Understand how digital dashboards and visual reports help monitor stock performance and simplify complex data. • Practice exporting and interpreting inventory reports from software tools (e.g., Excel, ERP systems, or construction-specific platforms). • Learn how automated alerts for low stock, expired materials, or delays support proactive inventory control. • Explore integration between inventory software and procurement systems to streamline order processing and tracking. • Identify key performance indicators (KPIs) used in inventory reporting, such as fill rate, stock accuracy, and order cycle time. • Recognize data security and user access considerations when managing inventory through digital platforms.	• Use inventory management software to track stock levels and generate real-time reports. • Implement a barcode or RFID system for inventory tracking in a simulated environment. • Generate inventory turnover and stock status reports for a mock scenario. • Interpret inventory data to identify trends and suggest cost-saving opportunities. • Conduct a case study analysis to identify potential inventory management issues and propose solutions. • Perform a simulation on integrating inventory data with other business processes (e.g., purchasing, sales). • Create a comprehensive report outlining inventory management strategies for an organization.
Classroom Aids:	

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other required stationery.
Tools, Equipment and Other Requirements:
• Inventory management software (e.g., Tally, NetSuite) • Barcode printers and scanners • RFID tags and readers • Computer systems with report generation tools • Inventory datasets for analysis • Case study materials • Sample inventory reports

Module 8: Carry Sub-functions of the Material Control Department

Mapped to ICE/CON/N0902, v.1

Terminal Outcomes:

- Define and understand the roles of various sub-functions within the Material Control Department.
- Ensure effective coordination among purchasing, planning, storage, and inventory control.
- Implement best practices across all sub-functions to optimize inventory processes.

Duration: *07:00*	**Duration**: *17:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define the different sub-functions within the Material Control Department: Purchasing, Planning & Control, Storage, and Inventory Control. • Discuss the roles and responsibilities associated with each sub-function. • Explain best practices for procurement and inventory management in construction materials. • Understand the importance of coordination among different sub-functions to maintain material flow. • Learn the methods for reviewing and updating sub-function processes in response to market changes. • Identify common challenges in each sub-function (e.g., delays in purchasing, space limitations in storage) and propose basic solutions. • Explore how cross-functional communication improves efficiency and reduces duplication of efforts in material handling. • Understand how performance indicators (like lead time, stock turnover, and supplier reliability) are used to evaluate sub-function effectiveness. • Learn how digital platforms can support integration and data sharing across all material control sub-functions. • Practice creating a simple workflow chart showing interaction among sub-	• Create a process map outlining the interactions between the sub-functions of the Material Control Department. • Develop a best practices guide for the procurement of construction materials. • Conduct a simulation exercise on coordinating between purchasing and inventory control to prevent delays. • Review and update storage and inventory control processes based on a changing market scenario. • Perform a gap analysis to identify improvement areas in the current sub-function processes. • Implement a mock exercise on cross-departmental coordination for optimized material flow. • Develop a strategy document for adapting sub-function processes to evolving project needs.

functions in a typical construction project.	

Classroom Aids:

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.

Tools, Equipment and Other Requirements:

- Process mapping software (e.g., Lucidchart, Microsoft Visio)
- Case studies on material control management
- Templates for best practices guides and strategy documents
- Materials for mock procurement and storage exercises
- Scenario-based learning materials
- Simulation software for inventory management
- Project management tools (e.g., Trello, Asana)

Module 9: Maintain Quality Control, Compliance and Cost Management

Mapped to ICE/CON/N0903, v.1

Terminal Outcomes:

- Ensure that all procured materials meet quality standards and regulatory requirements.
- Manage procurement costs while maintaining quality and supplier reliability.
- Develop purchasing plans aligned with project timelines.

Duration: *07:00*	**Duration**: *17:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand the criteria for establishing quality standards for construction materials in consultation with project teams. • Learn the procedures for inspecting and verifying the quality of materials received. • Study the legal and regulatory standards applicable to construction materials, including environmental and safety regulations. • Explore the factors affecting material costs and strategies to balance price, quality, and supplier reliability. • Understand the development of a purchasing plan that aligns with project timelines and avoids material shortages. • Learn how to document and manage material non-conformance reports (NCRs) and initiate corrective actions with suppliers. • Analyze case studies where poor quality materials led to construction delays or failures and identify prevention measures. • Understand how to collaborate with QA/QC teams to align procurement with quality assurance practices. • Develop skills to evaluate supplier-provided test certificates, product warranties, and conformance to technical specifications.	• Develop and document quality criteria for various construction materials in consultation with a simulated project team. • Perform hands-on inspection and verification of materials received against purchase orders and specifications. • Maintain detailed records of quality checks, supplier performance, and non-compliance issues using a digital database. • Simulate coordination with suppliers to resolve quality-related issues, including drafting emails and making phone calls. • Use checklists to verify that all materials meet legal and regulatory standards, including environmental and safety regulations. • Identify the appropriate quality of materials needed for different construction stages through case studies. • Conduct a cost-benefit analysis to ensure procurement at the best possible cost without compromising quality or supplier reliability.
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	

Tools, Equipment and Other Requirements:
• Quality checklists and standards documents • Digital inspection tools (e.g., calipers, gauges) • Sample construction materials (cement, steel, etc.) • Computer with procurement and inventory management software • Legal and regulatory standards reference materials • Communication tools (email templates, phone simulation software) • Case study materials for role-play and analysis

Module 10: Coordinating Material Purchase to Support Production Needs

Mapped to ICE/CON/N0903, v.1

Terminal Outcomes:

- Ensure efficient procurement of construction materials by analyzing project needs, identifying reliable suppliers, negotiating favorable contracts, and maintaining inventory levels that support smooth production processes.
- Ensure compliance with procurement policies, industry regulations, and health and safety standards throughout the material purchasing process to contribute to the project's successful execution.

Duration: *07:00*	**Duration:** *17:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand what supply chain management is and why it is important for getting materials on time and at a good cost in construction projects. • Learn basic negotiation techniques to get better prices and terms from suppliers while keeping a good relationship with them. • Know the basic rules of contract law that apply when making deals with suppliers to ensure everything is fair and legal. • Understand how inventory management helps in planning material needs, avoiding shortages, and reducing extra storage costs. • Learn the meaning of key terms like lead time, stockouts, and carrying cost, and how they affect project progress. • Know how to prepare simple contracts or agreements with suppliers using clear language and standard terms. • Identify what information to include in a purchase agreement (e.g., quantity, delivery time, payment terms). • Understand the importance of teamwork between procurement, site teams, and finance for smooth material flow. • Learn how to follow up with suppliers to check delivery status and handle delays. • Use simple tools (like checklists or spreadsheets) to track orders, deliveries, and payments. • Understand the risks of poor procurement practices, such as delays, extra costs, or legal issues. • Learn how good supplier relationships help reduce problems and build trust for future projects.	• Conduct a market analysis to identify and shortlist potential suppliers for construction materials, evaluating them based on price, quality, and delivery capabilities. • Develop and execute negotiation strategies with suppliers, focusing on securing optimal pricing, delivery schedules, and payment terms. • Create and issue purchase orders based on project material requirements, ensuring accuracy in quantities, delivery timelines, and compliance with company standards. • Manage the inventory of construction materials, updating inventory records, monitoring stock levels, and coordinating with the warehouse team to avoid overstock or stockouts. • Perform supplier audits and quality checks on delivered materials to ensure they meet the required specifications, and handle any discrepancies or rejections as necessary. • Collaborate with the project team to ensure that all procured materials are stored and handled according to health and safety regulations, ensuring the safety of workers and the quality of materials.

• Practice basic communication skills (emails, calls, meetings) when working with suppliers.	

Classroom Aids:

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.

Tools, Equipment and Other Requirements:

- Supplier performance monitoring software
- Role-play materials (scripts, scenarios)
- Risk assessment and mitigation planning tools
- Negotiation training materials (videos, mock scenarios)
- Communication templates and email drafting tools
- Supply chain mapping software
- Supplier data analytics tools

Module 11: Carry Inventory and Demand Forecasting

Mapped to ICE/CON/N0903, v.1

Terminal Outcomes:

- Effectively forecast material demand to align procurement with project needs.
- Minimize inventory holding costs while ensuring timely availability of materials.
- Adjust procurement plans based on consumption patterns and project requirements.

Duration: *06:00*	**Duration**: *16:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Learn simple ways to know how much material is needed for a project using past data and project plans. • Understand the importance of keeping accurate records of how much material is used on site. • Know how to estimate future material needs based on how much has been used already. • Learn about just-in-time (JIT) delivery, where materials arrive only when needed, to save space and reduce storage costs. • Understand how to look at usage patterns to avoid ordering too much or too little. • Know how poor material planning can lead to project delays or increased costs. • Learn how to update material plans when there are changes in project timelines or scope. • Practice using basic tools like spreadsheets or templates to track material usage and plan ahead. • Understand the link between good forecasting and smooth site operations without material shortages. • Learn how to work with site supervisors and engineers to get the right material estimates. • Explore how weather, market changes, or project delays can affect material needs and planning. • Learn how to prepare a simple material	• Understand various demand forecasting techniques to determine the quantity of materials to be purchased. • Learn the principles of maintaining accurate records of material consumption and forecasting future needs. • Explore just-in-time inventory techniques and their application in reducing holding costs. • Study the analysis of consumption patterns to adjust procurement plans for efficiency. • Understand the impact of inventory management on project timelines and cost control.

requirement plan for a small section of a project.	

Classroom Aids:

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.

Tools, Equipment and Other Requirements:

- Demand forecasting software
- Inventory management software
- Just-in-time inventory simulation tools
- Data analysis tools (Excel, specialized software)
- Case study materials for scenario-based exercises
- Audit checklists and tools
- Communication templates for supplier updates

Module 12: Adhere to Health and Safety protocols

Mapped to ICE/CON/N0904, v.1

Terminal Outcomes:

- Understand the importance of health and safety regulations relevant to the construction industry.
- Explain workplace hazards and implement risk assessment methods to prevent incidents.
- Apply standard procedures for reporting accidents, near misses, and unsafe practices.
- Demonstrate the use of Personal Protective Equipment (PPE) in various site conditions.
- Adhere to emergency protocols including fire safety, first aid, and evacuation procedures.
- Promote a safety-first culture among co-workers by adhering to safe working practices.
- Maintain compliance with organizational and statutory health and safety requirements.

Duration: *20:00*	**Duration**: *40:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand key legislation and regulatory bodies related to health, safety, and welfare in construction. • Identify different types of workplace hazards and classify them based on their potential impact. • Explain the principles of risk assessment and control measures to minimize exposure to hazards. • Describe the responsibilities of employees and employers under health and safety laws. • Understand procedures for accident reporting, investigation, and documentation. • Learn the correct selection and usage of various types of PPE for specific construction tasks. • Explain emergency response procedures, including fire prevention, first aid, and evacuation planning. • Practice using safety signs, barriers, and warning labels correctly. • Learn about the importance of site inductions and safety briefings before starting work. • Understand the role of safety officers and supervisors in monitoring safe work practices.	• Demonstrate proper inspection and use of PPE, including helmets, gloves, safety shoes, and eye protection. • Identify common site hazards and apply control measures in simulated construction scenarios. • Perform a basic risk assessment on a mock site and recommend corrective actions. • Participate in emergency drills, including evacuation, fire safety, and first aid simulations. • Report incidents and unsafe conditions using organizational procedures and formats. • Safely handle tools, materials, and equipment as per health and safety standards. • Engage in toolbox talks and safety briefings, demonstrating effective communication of hazards and procedures.

• Know how to use tools and machinery safely, and report damaged or unsafe equipment. • Understand the importance of hygiene, clean drinking water, rest breaks, and safe work conditions for overall worker welfare.	

Classroom Aids:

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.

Tools, Equipment and Other Requirements:

- Demand forecasting software
- Inventory management software
- Just-in-time inventory simulation tools
- Data analysis tools (Excel, specialized software)
- Case study materials for scenario-based exercises
- Audit checklists and tools
- Communication templates for supplier updates

Module 13: Employability skills

Mapped to DGT/VSQ/N0102, v.1

Terminal Outcomes:

- Discuss the Employability Skills required for jobs in various industries
- Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
- Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan

Duration: *60:00*
Theory – Key Learning Outcomes
• **Introduction to Employability Skills Duration: 1 Hour** **After completing this Programme, participants will be able to**: 1. Discuss the importance of Employability Skills in meeting the job requirements Constitutional values - Citizenship Duration: 1 Hour 2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. 3. Show how to practice different environmentally sustainable practices Becoming a Professional in the 21st Century Duration: 1 Hours 4. Discuss 21st century skills. 5. Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations. • **Basic English Skills Duration: 2 Hours** 6. Use appropriate basic English sentences/phrases while speaking • **Communication Skills Duration: 4 Hour** 7. Demonstrate how to communicate in a well -mannered way with others. 8. Demonstrate working with others in a team • **Diversity & Inclusion Duration: 1 Hour** 9. Show how to conduct oneself appropriately with all genders and PwD 10. Discuss the significance of reporting sexual harassment issues in time • **Financial and Legal Literacy Duration: 4 Hours** 11. Discuss the significance of using financial products and services safely and securely. 12. Explain the importance of managing expenses, income, and savings. 13. Explain the significance of approaching the concerned authorities in time for any

exploitation as per legal rights and laws

- **Essential Digital Skills Duration: 3 Hours**

14. Show how to operate digital devices and use the associated applications and features, safely and

securely

15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

- **Entrepreneurship Duration: 7 Hours**

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

- **Customer Service Duration: 4 Hours**

17. Differentiate between types of customers

18. Explain the significance of identifying customer needs and addressing them

19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 2 Hours

20. Create a biodata

21. Use various sources to search and apply for jobs

22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview

23. Discuss how to search and register for apprenticeship opportunities

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	RelevantIndustry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
M.Tech/M.E. in Civil Engineering	Civil Engineering	2	in-store keeping/ procurement , Construction field , supply chain management.	1		
B.Tech/B.E (Bachelor's degree)	Civil Engineering	3	in-store keeping/ procurement or Construction field	1		
Diploma	Civil	4	in-store keeping/ procurement or Construction field	1		

Trainer Certification	
Domain Certification	**Platform Certification**
Certified in ToT for Job Role: Purchase Executive – Construction mapped to QP: "ICE/CON/Q0901, v 1.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2601, v1.0. Minimum accepted score is 80%.

Assessors Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	RelevantIndustry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
M.Tech/M.E. in Civil Engineering	Civil Engineering	1	in-store keeping/ procurement , Construction field , supply chain management.	1		
B.Tech/B.E (Bachelor's degree)	Civil Engineering	2	in-store keeping/ procurement or Construction field	1		
Diploma	Civil	3	in-store keeping/ procurement or Construction field	1		

Assessor Certification	
Domain Certification	Platform Certification
Certified in ToT for Job Role: Purchase Executive – Construction mapped to QP: "ICE/CON/Q0901, v 1.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2701, v1.0. Minimum accepted score is 80%.

Assessment strategy

1. Assessment System Overview:
    - Batches assigned to the assessment agencies for conducting the assessment on SDSM/SIP or email
    - Assessment agencies send the assessment confirmation to VTP/TC looping SSC
    - Assessment agency deploys the ToA certified Assessor for executing the assessment
    - SSC monitors the assessment process & records

2. Testing Environment:
    - Confirm that the Centre is available at the same address as mentioned on SDMS or SIP
    - Check the duration of the training.
    - Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
    - If the batch size is more than 30, then there should be 2 Assessors.
    - Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
    - Check the mode of assessment—Online (Tablet/Computer) or Offline (OMR/PP).
    - Confirm adequate number of Tablets available to execute the Assessment smoothly.
    - Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:
    - Question papers created by the Subject Matter Experts (SME)
    - Question papers created by the SME verified by the other Subject Matter Experts
    - Questions are mapped with NOS and PC
    - Question papers are prepared considering that level 1 to 3 is for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
    - Assessor must be ToA certified & trainer must be ToT Certified
    - Assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:
    - Time-stamped & geo-tagged reporting of the assessor from assessment location
    - Centre photographs with signboards and scheme specific branding
    - Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
    - Time-stamped & geo-tagged assessment (Theory + Viva + Practical) photographs &videos

5. Method of verification or validation:
    - Surprise visit to the assessment location
    - Random audit of the batch
    - Random audit of any candidate

6. Method for assessment documentation, archiving, and access
    - Hard copies of the documents are stored

- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

References

Glossary

Terms	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do **upon the completion of the training**.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do **upon the completion of a module.** A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Terms	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
PC	Performance Criteria
DWSSC	Domestic Workers Sector Skill Council
MC	Model Curriculum
OJT	On Job Training
KLO	Key Learning Outcomes
SME	Subject Matter Expert
ToA	Training of Assessors
ToT	Training of Trainers
SIP	Skill India Portal
TP	Training Partner
SDMS	Skill Development and Management System
VTP	Vocational Training Provider
TC	Training Centre
OMR	Optical Mark Recognition
PPE	Personal Protective Equipment
SSC	Sector Skill Council
PwD	Persons with Disabilities
ADL	Activities of Daily Living
CPR	Cardio Pulmonary Resuscitation
UV	Ultraviolet
ABC	Airways, Breathing and Circulation