## CORE OBJECTIVES (LTE)

### 1. Engineering Practice

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<th>Code</th>
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#### 1.1 Policy, Regulations & Basics
- a) Transport policies
- b) Regulatory framework
- c) Relevant laws, regulations and ordinances, customs and tariff rules
- d) Standards and codes of practice
- e) Design manuals and statutory requirements

#### 1.2 Data Collection, Survey, Measurement and Statistical Analysis [At least 2 of the following]
- a) Quality Control Sampling Method
- b) Statistical Process Control (SPC)/ Statistical Quality Control (SQC)
- c) Measurement e.g. use of measuring instruments
- d) Design and implementation of database systems
- e) Data/ Information collection, treatment and analysis
- f) Statistical analysis and practical recommendations
- g) Measurement of systems performance
- h) Traffic & transport surveys (planning, design and execution)
- i) Automatic traffic counting technologies and devices
- j) Transport statistics and data
- k) Research for improvement initiatives
- l) Computer simulation to support analysis
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<tbody>
<tr>
<td><strong>1.3</strong> Management, Operation and Other Activities Related to Logistics Systems or Transport Systems [Choose 3.1 or 3.2]</td>
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<tr>
<td><strong>1.3.1</strong> Activities Related to Logistics Systems</td>
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<tr>
<td>(i) Logistics Operations [At least 2 of the following]</td>
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<tr>
<td>a) Logistics information systems</td>
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<td>b) Warehouse operations</td>
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<td>c) Resource planning and allocation</td>
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<td>d) Freight forwarding</td>
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<td>e) Supply chain integration</td>
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<td>f) Third party logistics</td>
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<td>g) Shipping and port logistics</td>
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<td>h) Air logistics</td>
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<td>i) Transportation management</td>
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<td>j) Logistics systems safety &amp; security, TAPA, C-TPAT, and AEO</td>
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<td>k) Digital trade &amp; transportation network (DTTN)</td>
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<td>l) Environmentally responsible logistics</td>
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<td>m) Cold-chain, special and/or dangerous goods handling</td>
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<tr>
<td>(ii) Associated Technical Activities on Logistics Systems</td>
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<td>[At least 4 of the following]</td>
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<tr>
<td>a) Demand forecasting</td>
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<td>b) Inventory control</td>
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<td>c) Transportation operations and management</td>
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<td>d) Vehicle routing, scheduling &amp; fleet dispatching</td>
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<tr>
<td>e) Optimisation of transportation carrier operations</td>
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<tr>
<td>f) Supply chain network design</td>
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<td>g) Procurement and sourcing</td>
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<td>h) Management of supply chain</td>
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<td>i) Supply contracts and collaboration</td>
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<td>j) Distribution management</td>
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<td>k) Material handling and transfer automation</td>
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<tr>
<td>l) Warehouse operations and management</td>
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<td>m) Standard operations procedures design</td>
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<td>n) Wireless and mobile applications in logistics</td>
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(iii) **Industrial Management and Commercial Activities**

[At least 2 of the following]

- a) Organisation and methods
- b) Training/ Human resources management
- c) Purchasing/ supply/ supplier relationship management
- d) Receiving and warehousing
- e) Dispatch and transportation
- f) Sales/ marketing and business development
- g) Plant engineering/ maintenance
- h) Logistics and support
- i) Security of plant, product and service
- j) Services product development and/or customers liaison
- k) Materials management e.g. sourcing, specifications, requirements
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## 1.3.2 Activities Related to Transport Networks/Systems

(i) **Network/ System Assessments [At least 3 of the following]**

- a) Network demand and capacity analysis
- b) Accessibility and risk analysis
- c) Traffic impact assessments
- d) Pedestrian simulation and evacuation assessment
- e) Road safety audits
- f) Economic, social & environmental impact assessments
- g) Multi-objective evaluations; including economic evaluation
- h) Feasibility studies in transport context

(ii) **Planning, Design of Transport Networks/Systems [At least 4 of the following]**

- a) Territorial and regional transport planning
- b) Integration of land use and transport planning
- c) Transport master-planning
- d) Highway planning, design and construction
- e) Public transport network planning
- f) Public Transport Interchange (PTI) design and planning
- g) Pedestrian network and pedestrianisation schemes
- h) Cyclist network and bike plan
- i) Goods vehicle plan
- j) Streetscape design
- k) Layout design of road junction and/or other traffic facilities
- l) Traffic management schemes/calming measures
- m) Traffic signage, road markings and traffic aids
- n) Traffic signal plan, ducting and details
- o) Urban traffic control
- p) Traffic and transport information systems
- q) Parking management and control
- r) Temporary traffic management and traffic diversion
## CORE OBJECTIVES (LTE)

### 2. Functional Specialist Training

#### 2.1 Functional Specialist Training  [Choose (1) or (2)]

**Logistics Industry [At least 2 of the following]**

- a) Warehouse operations
- b) Demand forecasting and inventory control
- c) Procurement and supplier management
- d) Resource planning and management
- e) Air and port management
- f) Transportation management
- g) Distribution management
- h) Logistics services
- i) Freight forwarding
- j) Logistics systems development and implementation
- k) Reverse logistics

**Transportation Industry [At least 2 of the following]**

- a) Development of traffic/transport models
- b) Border and gateway operations
- c) Demand forecasting
- d) GIS applications and spatial analysis
- e) Global Positioning Systems (GPS)
- f) Area licensing scheme, congestion charging and user toll systems
- g) Traffic Control and Surveillance Systems (TCSS)
- h) Intelligent Transport Systems (ITS)
- i) Traffic accident investigation and prevention
- j) Parking control and information systems
- k) Crowd control
- l) Access control and security
- m) Operation & management of public transport services
- n) Public transport routing/ scheduling/ service design
- o) Public transport fares and ticketing systems
- p) Inter-modal hub/PTI design
- q) Railway signal system and control
- r) Transport operations simulation
- s) Automatic fare/ toll collection systems
- t) Regulatory control and enforcement systems
- u) Maintenance and assets management systems

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*As appropriate to the company*