

IMC CHAMBER OF COMMERCE AND INDUSTRY

**ADVANCED CERTIFICATE IN LOGISTICS & SUPPLY CHAIN
DECEMBER 2022**

Subject: LOGISTICS & SUPPLY CHAIN MANAGEMENT

Date: 03.12.2022

Marks: 100

Time: 10:30 a.m. to 1:30 p.m.

NOTE

- **Answer any five questions. Each Question carries 20 marks.**
- **Correct question number should be indicated against each answer.**

Q.1.Explain the concept of Supply Chain Management and its relationship with Logistics in Global Trade.

Q.2. Explain the main functions of Logistics in detail.

Q.3. Explain Pre-Shipment Stage, Shipment Stage and Post Shipment Stage in Export Logistics.

Q.4. Explain in detail Inco terms 2010 and major changes implemented in Inco terms 2020.

Q.5. List out and explain Customer Expectation related to Logistical Performance.

Q.6. Explain the role of Block chain and Artificial Intelligence in Logistics.

Q.7. Write Short Notes on **any Two**

- a) 3 PL and 4 PL
- b) Distribution Management
- c) Export Logistics Planning
- d) Supply Chain Strategies
- e) Procurement Management and Outsourcing

IMC CHAMBER OF COMMERCE AND INDUSTRY
ADVANCED CERTIFICATE IN LOGISTICS AND SUPPLY CHAIN EXAMINATION

DECEMBER 2022

Subject: WAREHOUSING

Date: 04.12.2022

Marks: 100

Time: 10:30 a.m. to 1:30 p.m.

NOTE

- Answer any five questions. Each question carries 20 marks.
- Correct question numbers should be indicated against each answer

Q.1. Explain various Warehousing opportunities available in India after imposition of New In direct Tax regime I.e. (Goods and Service tax -i.e. GST).

Q.2. Explain the Role of Modern Warehousing in Logistics and integrating with ROBOTICS.

Q.3. Calculate Chargeable Weight by Volume of 04 parcels of Total 135kgs- gross weight as per given below data

- a) 1 parcel 15kg - 102 x 85 x 72 cm
- b) 2 drums 32 kg Height 110cm ,diameter 45cm (each)
- c) 1 pallet 56kg -120cms x 80 x 80cm

Q.4. Calculate total import duty in Rupees only while importing goods as per the following given data, foreign supplier's invoice value of the goods are as under (prior to GST Indirect Tax Applicable)

- | | | |
|---|-----------|----|
| a) Dubai Factory -Ex-Works Value of the good is: | \$7500.00 | |
| b) In-Land Transportation up to Dubai Seaport: | \$ 50.00 | |
| c) Custom Documents Processing charges at Dubai Seaport: | \$ 30.00 | |
| d) Ocean Sea Freight up to Nhava Sheva Seaport: | \$ 80.00 | |
| e) Marine Insurance policy Cover up to Nhava Seaport: | \$10.00 | |
| f) Basic Custom Duty: (BCD) ----- | | 5% |
| g) Education Cess on custom is ----- | | 3% |
| (2% on primary and 1% on secondary education) | | |
| h) IGST (Integrated goods and service Tax) while importing goods in India - | 18% | |
| i) Anti-dumping duty is \$20.00 on CIF Value of imported goods | | |
| (CBEC- Customs Exchange rate Rs 82:00 per Dollar) | | |

Note: Calculate Import Duty in Indian rupees only,

P.T.O.

- Q.5. Explain Specific Elements of Volume Calculations applicable for Calculating Chargeable weight in Air Freight.**
- Q.6. Discuss the criteria for selection of material handling system for a Warehouse. Explain the Role of Packaging and labeling while delivering of the goods from the Warehouse.**
- Q.7. How will you transport 'ODC, i.e. Over Dimension Clearance and OWC i.e. Over Weight Clearance of imported cargo in India? Explain the role of regulatory authorities such as:**
- a) Railway Crossing
 - b) PWD
 - c) MIDC
 - d) MSEB
 - e) RTO
 - f) Sea Port Authorities
 - g) Municipal Corporation
 - h) NHAI
 - i) Police Dept.
 - j) Telegraphic Dept.
 - k) Gram Panchayat
 - l) State Government i.e. Mantralaya
- Q.8. Write short notes on any four:**
- a) RFID
 - b) Freight Forwarding
 - c) ADC i.e. Automatic Data Collection
 - d) Basic difference between "LCL" & "FCL" CARGO
 - e) Role of Customs Brokers -CHA
 - f) Marine Insurance policy of SEA & AIR cargo
 - g) Yard Management
 - h) Cross Docking

IMC CHAMBER OF COMMERCE AND INDUSTRY
ADVANCED CERTIFICATE IN LOGISTICS & SUPPLY CHAIN

DECEMBER 2022

Subject: TRANSPORTATION INFRASTRUCTURE

Date: 10.12.2022

Marks: 100

Time: 10:30 a.m. to 1:30 p.m.

NOTE:

- a) Answer any five questions. Each Question carries 20 marks.**
- b) Correct question numbers should be indicated against each answer.**

- Q.1. List out the significance of Transport in International Trade. Explain the role of any four major Means & Modes of Transportation used in International Trade.
- Q.2. Explain in detail Factors influencing Transportation Cost.
- Q.3. (a) Explain the Concept of Liner and Tramp.
(b) List out and explain in detail any four Charter Party Clauses.
- Q.4. (a) Explain the different types of Containers (preferably with a diagram).
(b) Explain the different types of Ships.
- Q.5. Explain different types of Marine Insurance Policy.
- Q.6. Explain Multimodal Transportation system and its advantages in International Trade.
- Q. 7. Write short notes on **any two**:
- a) Parameters for Selection of Shipping Line.
 - b) Major Ocean Sea Routes.
 - c) Advantages and Disadvantages of Steel Containers.
 - d) Importance of Material Handling Equipment (MHE) in Logistics.

IMC CHAMBER OF COMMERCE AND INDUSTRY
ADVANCED CERTIFICATE IN LOGISTICS AND SUPPLY CHAIN EXAMINATION
December 2022

Subject: BUSINESS FINANCE AND INVENTORY MANAGEMENT

Date: 11.12.2022 **Marks** 100 **Time:** 10:30 a.m. to 1:30 p.m.

Note: Q.1 is Compulsory and carries 30 marks.

Part – I Business Finance (Total Marks – 50)

Q.1. Following balances are extracted from the books of X & Co. Limited as on 31st March, 2022.

Details	Credit (in Rupees)
Opening Stock as on 1 st April, 2021	22,000
Bills Receivables	9,000
Purchases	78,000
General Wages paid	8,500
Insurance premium paid	1,400
Sundry Debtors	60,000
Wages paid in manufacturing (Carriage Inwards)	1,600
Commission paid	1,600
Interest on capital paid	1,400
Stationery expenses	900
Sales returns	2,600
Sales	1,20,000
Purchases returns	1,000
Trade expenses	400
Office furniture	4,000
Cash in hand	1,000
Cash at bank	9,500
Rent paid	2,200
Bills Payable	6,000
Sundry Creditors	39,300
Plant & Machinery	90,000
Capital	1,27,800

Closing Stock as on 31st March, 2022: Rs. 50,000/-

- From the above details:
 - Prepare the Trial Balance of the Company as on 31st March, 2022 **(10 marks)**
 - Prepare the Trading account of the Company for the year ended 31st March, 2022 **(5 marks)**
 - Prepare the Profit & Loss account of the Company for the year ended 31st March, 2022 **(5 marks)**
 - Depreciation at the rate of 5% on Furniture and 10% on Plant & Machinery have to be provided.
 - Prepare the Balance Sheet of the Company as on 31st March, 2022 **(10 marks)**.

- From Q.2 to Q.5, answer any two questions. Each Question carries 10 marks each.

Q.2. From the following figures of an entity, calculate the Interest Service Coverage Ratio and Debt Service Coverage Ratio **(10 marks)**

i. Net Profit before tax	: Rs. 800 lakhs.
ii. Income Tax 20% on Net Profit	
iii. Depreciation	: Rs. 200 lakhs.
iv. Patent written off	: Rs. 100 lakhs
v. Interest on Working Capital Loan	: Rs. 150 lakhs
vi. Interest on Term Loan	: Rs. 320 lakhs.
vii. Term Loan Instalments payable during the year	: Rs. 280 lakhs.

Q.3. The installed capacity of a newly bought machine is 30,000 units per annum. Fixed cost of the unit is Rs. 12.00 lakhs. Selling price of the product is Rs. 200/- per unit and the variable cost is Rs. 160/- per unit. The year-wise production of the unit is given below:

- i. Year 1 = 10,000 units.
- ii. Year 2 = 15,000 units.
- iii. Year 3 = 20,000 units.

- From the above inputs:
 - Calculate Break-even sales in Units **(3 marks)**
 - Calculate in which year of operation, this unit will cross the break-even point **(3 marks)**
 - In case, the unit is able to break-even, calculate the margin of safety in percentage terms for the 3rd year of operation **(4 marks)**
- Q.4. a.** The Current Ratio of an entity is 1.15:1. Net Working Capital is Rs. 60 lakhs. Calculate the value of the Current Assets **(5 marks)**.

b. From the following figures, calculate the Quick Ratio **(5 marks)**.

- Cash on hand:	Rs.40,000
- Bank balance:	Rs.1,50,000
- Sundry Debtors:	Rs.2,00,000
- Inventories:	Rs.2,80,000

- Prepaid expenses: Rs.20,000
- Sundry Creditors: Rs.2,00,000
- Long term Debts: Rs.8,00,000

Q.5. What are the three golden rules of accounting? Explain the same with relevant examples **(10 marks)**

Part II Inventory Management (Total Marks – 50)

- **Q.6 is Compulsory and carries 30 marks.**

Q.6.

- Explain the concept of Economic Order Quantity (EOQ) under Inventory Management with graphical representation. **(10 marks)**
- The annual usage of raw material is 16,000 units. Cost per unit is Rs.250. Cost of carrying one unit for one year is 10% of cost and cost of placing an order is Rs. 50. Find out EOQ. **(10 marks)**
- Having worked out the EOQ, prove that at the point of EOQ, the ordering cost and the carrying cost are equal **(10 marks)**

- **From Q.7 to Q.10, answer any two questions. Each Question carries 10 marks.**

Q.7. The following record is taken from the Stores Ledger of manufacturing concern: **(10 marks)**

Date of Transaction	Details	Unit Cost (Rs.)	Total Units purchased	Given for Production
02/4/2022	Purchase of raw material	400	1,000	
09/4/2022	-do-	420	1,500	
16/4/2022	-do-	430	2,000	
23/4/2022	Given for Production			1,300
30/4/2022	-do-			1,800

- The unit is presently following the FIFO method of inventory valuation. However, the Management wants to change the method to LIFO. In that case, work out the cost impact for the unit (whether the unit would incur profit or loss by changing the inventory valuation method).

Q.8. Write in detail about the below mentioned two concepts in Inventory Management with a graphical representation **(10 marks)**:

- a. Reorder Level
- b. Lead Time

Q.9. The Working Capital cycle of a manufacturing concern is given below **(10 marks)**:

- Raw material to be held in stock for 15 days. (Value it based on Cost of Goods Sold – COGS)
- Raw material credit enjoyed by the firm: 10 days (Value it based on COGS)
- Working-in-process & Finished Goods remain on hold: 20 days (Value it based on COGS)
- Debtors are paid after 20 days (Value it based on Sales)
- Add 10% for cost escalation
- Sales for the last year: Rs. 80 lakhs.
- Profit Margin: 20%.
- Assume 240 days working in a year.
- In case, Bank's is seeking a margin of 15% from the entity, arrive at the maximum working capital facility that can be sanctioned by the bank based on the above inputs.

Q.10. In management of inventories, an entity should always strive to determine and achieve the optimum level of inventory. Different tools of inventory analysis are available in arriving at the optimum inventory level. Out of this, explain in detail **any two** from the below mentioned Inventory analysis: **(10 marks)**

- a) GOLF analysis.
- b) SDE analysis.
- c) HML analysis.
- d) S-OS analysis.
- e) Just in Time analysis

IMC CHAMBER OF COMMERCE AND INDUSTRY

ADVANCED CERTIFICATE IN LOGISTICS AND SUPPLY CHAIN EXAMINATION

DECEMBER 2022

SHIPPING & LOGISTICS - STATUTES & OBLIGATIONS

Date: 17.12.2022

Marks: 100

Time: 10:30 a.m. to 1:30 p.m.

NOTE:

- c) Answer any five questions. Each Question carries 20 marks.
- d) Correct question numbers should be indicated against each answer.

Q.1. Calculate the (i) CIF value of the Goods in Indian Rupees (ii) The CIF value of the goods in Indian Rupees (iii) The Total Customs Duty payable in Indian Rupees based on following details. Foreign Supplier submitting Commercial Invoice as under for Import of Goods at Nhava Sheva Seaport from Dubai factory:

(a) Ex -works Value of the Goods in Dubai Factory duly packed	\$2000.00
(b) In-Land Transport Journey (Local Transportation in Dubai) from Ex-works Factory to Dubai Seaport :	\$100.00
(c) Marine Insurance Premium paid in Dubai covering all Risks	\$ 20.00
(d) Ocean Sea Freight from Dubai sea port to Nhava Sheva seaport	\$300.00
(e) Customs House clearance (customs Brokers) charges at Dubai	\$30.00
(f) Importer's Agent-Commission-fees paid at Dubai:	\$20.00.
(g) Basic Customs Duty while importing into India:	5%
(h) Integrated Goods & Service Tax (IGST)	18%
(i) Higher Education Cess :	2%
(j) Secondary Education Cess:	1%
(k) Customs Exchange Rate -CBEC Rs 82=00 per Dollar.	

Q.2. Explain in detail the Customs Clearance procedure for Imported Goods under GST procedure.

Q.3. Explain any two of the following

- a) IGST
- b) SGST
- c) CGST
- d) E.O. - Export Obligation
- e) NFE - Net Foreign Exchange Earning

Q.4. Write Short Notes on any three:

- a) IGM
- b) EGM
- c) Bill of Entry
- d) Shipping Bill

Q.5. Answer any two briefly:

- a) CFS
- b) ICD
- c) ICEGATE
- d) LCD

Q.6. Explain the difference between Export and Import.

Q.7. Explain why Anti-Dumping Duties and Safe Guard Duties are collected on Imported Goods?
