

LSCM 2013	Distribution & Outbound Logistics	L	T	P	C
Version 1.0		3	0	0	3
Pre-requisites/Exposure	12 th level				
Co-requisites	Understanding of logistics Function				

Course Objectives

1. To familiarize students with how the knowledge of outbound management and its advantages supply chain operations.
2. To develop an understanding on various strategic functions of outbound logistics
3. To develop analytical ability for taking appropriate decision in distribution and outbound logistics.
4. To acquaint with latest tools and technologies in developing efficient logistics system.

Course Outcomes

On completion of this course, the students will be able to

CO1. Understand the elements of distribution and outbound logistics management & identify the scope for integrating the logistics with supply chain operations.

CO2. Design efficient distribution network for logistics system & evaluate various alternatives for modes of transportation

CO3. Analyze the cost structures in transport selection and vehicle routing. & also understand the applications of modern tools and technology in outbound logistics.

CO4. Integrate the applications of outbound logistics with various functions of management & analyze the various tradeoffs in taking decision regarding distribution network design.

CO5. Design efficient and responsive transport strategy & use software tools like spreadsheet for optimization in outbound logistics decision making

Catalog Description

Now days, for any organization, delivery of product and services to the customers has become of critical importance. The course on logistics management familiarizes students with fundamentals of logistics management, how the logistics concept has evolved and how it plays an important role in the economy. The course will cover various strategic issues, transport infrastructure, freight structures, and applications of information technology. The students will also be exposed to latest tools and techniques for efficient transport management in order to reduce the overall cost of operations. The containerization, emerging role of inland container depot in multimodal transport and significance of effective distribution strategy in success of E-commerce be discussed in the class with major emphasis.

Course Content

Unit I:

04 Hours

Introduction

Introduction to Distribution and Outbound Management, Role of distribution channel in outbound logistics, Role of distribution channel in outbound logistics, Distribution Strategy

Unit II: 10 Hours

Distribution Network Design

Distribution Network Design –Introduction, Factors affection distribution network design- Relevant cost for network decision, cost minimization model, profit maximization model Network Design and Optimization Approach- cost minimization model, profit maximization model

Unit III: 04 Hours

Transport Principles and Participants

Transport Principles, Transport Participants, Transport performances and value measures

Unit IV:

Transportation Modes, Cost and Performances 12 Hours

Transportation modes, comparison of modes of transportation, Factors affecting the transportation cost, Impact of product and demand characteristics on system cost, performance measures, Transportation mode selection process, Transportation strategies, Vehicle costing, Vehicle scheduling and routing –Clark & Wright Algorithm

Unit V: 6 Hours

Fleet Management Software and Applications

Transit Operations Software, Advance Fleet Management, Intermodal freight technology, Transport Security, Transport Management System

Text Book

1. Shah, J.(2012). Supply Chain Management, New Delhi, India: Pearson India,

Reference Books

1. Sople, V. V. (2008). Logistics management. Pearson Education India.
2. Bowersox, D. J., Closs, D. J., & Cooper, M. B. (2002). Supply chain logistics management (Vol. 2). New York, NY: McGraw-Hill.
3. Gourdin, K. (2006). Global logistics management: a competitive advantage for the 21st century. Wiley-Blackwell

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination

Examination Scheme:

Components	MSE	IA	ESE
Weightage (%)	20	30	50
		<ul style="list-style-type: none"> • Case Presentation (30 Marks) • Online Assignments (40 Marks) • Quiz (30 Marks) 	

Relationship between the Course Outcomes (COs) and Program Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the elements of distribution and outbound logistics management & identify the scope for integrating the logistics with supply chain operations.	PO 1, 2, 4,5,6
CO2	Design efficient distribution network for logistics system & evaluate various alternatives for modes of transportation	PO 2,3,4,8,1
CO3	Analyze the cost structures in transport selection and vehicle routing. & also understand the applications of modern tools and technology in outbound logistics.	PO 3,4,6,8
CO4	Integrate the applications of outbound logistics with various functions of management & analyze the various tradeoffs in taking decision regarding distribution network design	PO 4,5,6,7,8
CO5	Design efficient and responsive transport strategy & use software tools like spreadsheet for optimization in outbound logistics decision making	PO 2,3,4,5,6,8

Program Outcomes:

Course Outcomes	CO 1	CO 2	CO 3	CO 4	CO 5
PO 1	3	3	3	2	2
PO 2	3	3	3	2	2
PO 3	3	3	3	2	2
PO 4	3	1	1	3	1
PO 5	2	2	1	3	1
PO 6	2	2	2	2	1
PO 7	3	3	1	2	1
PO 8	3	3	3	3	1

		Students will demonstrate strong conceptual knowledge of management & its functional areas.	Students will demonstrate effective oral and written communication skills in the professional context.	Students will be able to work effectively in teams and demonstrate team-building capabilities.	Students will be able to evaluate the legal, social and economic environments of business.	Students will be able to describe the global environment of business.	Students will demonstrate sensitivity towards ethical and moral issues and have ability to address them in the course of business.	Students will be able to apply decision-support tools to business decision making.	Students will be able to apply knowledge of business concepts and functions in an integrated manner.
LSCM 2013	Distribution & Outbound Logistics	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
		3	3	3	2	2	2	2	3

- 1 – Weakly mapped**
- 2 – Moderately mapped**
- 3 – Strongly mapped**

Model Question Paper

Name: Enrolment No:	
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Course: LSCM 2013 Distribution & Outbound logistics

Programme: BBA (Logistics Management) **Semester: III ODD-2016-19**

Time: 03 hrs. **Max. Marks: 100**

Instructions:

Note: All sections are compulsory & this question paper carries 4 sections.

Section A (20)

Q.1 to 10 carries 2 marks each for correct answer. Please select the most appropriate answer. There is no negative marking

1.	<p>Q.1 Which one of the statement is true? (a) Departmental store the part of supply chain network (b) Distributors and retailers are the part of supply chain network (c) Wholesalers are not the part of distribution network (d) only a & b</p> <p>Q.2 Which one represents the function of channel? (a) Successive storage and movement of products (b) It assumes responsibilities of the risk of trade (c) Placing the orders with manufacturer (d) All of them</p> <p>Q.3 Which one of the option relates to the source of conflicts among channels members? (a) Goal incompatibility (b) More number of channels (c) Consumers (d) None of them</p> <p>Q.4 Channel length is represented by? (a) Level of channel structure (b) Geographical coverage (c) Number of channel partners (d) None of them</p> <p>Q.5 Which one does not represent the type of distribution? (a) Exclusive (b) Inclusive (c) Intensive (d) selective</p> <p>Q.6 In the number of facilities is increased, then transportation costs will (a) Increase (b) decrease (c) Remain unaffected (d) Can't say</p>	(2*10=20 marks)	CO 1,2, 3,4
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	<p>Q.7 Which one of the option is correct with respect to transportation cost? (a) It tapers with increasing distance (b) It remains unaffected with increasing distance (c) It varies the product density (d) Only a & c</p> <p>Q.8 Which one of the statement is correct with respect to rail as mode of transport? (a) It is used for transporting more the 60 percent of freight movement in India (b) It is not economical for bulk shipment (c) It provides fast delivery for smaller distance (d) It suffers for long and unreliable lead time</p> <p>Q.9 Which statement is correct with respect to transportation via inland waterways (a) Operational cost is high (b) One of the cheapest mode of transport (c) One of the fastest mode of transport (d) None of them</p> <p>Q.10 Which option is correct about the deciding about the choice of network design (a) Size of network (b) Location of the Network (c) Number of Channels (d) All of them</p>		
	<p>SECTION B (20 Marks) Attempt any 4 question, each question carries 5 marks only</p>		
2.	<p>Q.11 Discuss ‘efficiency’ vs ‘responsiveness’ in transport management? Q.12 Describe the role of distribution network in supply chain? Q.13 “Transportation permits distributors to leverage economies of scale by lowering per unit cost of transporting the product”. Enumerate it? Q.14 Briefly describe various disadvantages of increasing the number of channels in the distribution network? Q.15 What are various modes of transport? Under what situations ‘Sea’ be chosen as mode of transport?</p>	<p>(5*4= 20 marks)</p>	<p>CO 1, 2, 3,4 ,5</p>
	<p>SECTION C(30 marks) (Attempt any 3 question, each question carries 10 marks only)</p>		
3.	<p>Q.16 Briefly describe 3 R’s in transportation? List various strategies in transportation and discuss them suitable examples? Q.17 Compare and contrast between rail and road as mode of transport? Q.18. Discuss steps to be undertaken for locating global sites for logistics network? Q.19 Describe the objectives of distribution network design? Explain the various data/information to be collected for suitable deign of supply chain network?</p>	<p>[10 x 3]</p>	<p>CO , 2, 3, 4</p>
	<p>SECTION D (30 marks) Attempt any one question out of the two & provide the solution</p>		
4.	<p>Q.20 (a) What do you mean by optimization model of network design? Explain any two techniques of network optimization? (b) You are provided with following data of ABC Ltd manufacturing company engaged in producing single product</p> <ul style="list-style-type: none"> -There are two plants p1 and p2 - Plant P1 has an annual capacity of 200,000 units. - Plant p2 has an annual capacity of 60,000 units. - The two plants have the same production costs. - There are two warehouses w1 and w2 with identical warehouse handling costs. 	<p>10 Marks</p> <p>10 Marks</p>	<p>CO- 4,</p>

- There are three markets areas c1, c2 and c3 with demands of 50,000, 100,000 and 50,000, respectively.

Distribution cost per unit is provided in the table below

Facility Warehouse	P1	P2	C1	C2	C3
W1	0	4	3	4	5
W2	5	2	2	1	2

Calculate the total cost of network design under following situations

- (i) Assign each market to closet warehouse and then assign each plant based on cost
- (ii) Assign each market based on total landed cost

**10
Marks
10
Marks**