

Note: - Pl. start your question paper from next page

Roll No.: -----



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES
DEHRADUN**

End Semester Examination – May, 2018

Program/course : MBA (Logistics & Supply Chain Management)	Semester : II
Subject : Logistics Planning & Strategy	Max. Marks : 100
Code : MDSL 833	Duration : 3 hrs.
No. of page/s : 05	

Section A

Marks 01x20^Q = 20

Question # 01: Fill the blanks with the **MOST SUITABLE** word given in the Word Bank:

1. Strategic decisions are made at the In a multi-product and/or multi-location organization the next level of decision making is at the and, for a single-product and/or single-location organization strategic decision making is same as strategic decision making. Next, is the strategic decision making viz., formulation of marketing strategy, logistics and supply chain strategy etc., followed by decision making for each function (06/06)
2. Distinctive feature of Operation is its nature i.e. a set of activities are repeated in a sequence, as a result a number of same product is produced e.g. automobile assembly line, production of sugar or power etc. whereas Operations is a operation i.e. start and finish time is given and, Operations include physical products as part of its service-value-offer and it is by the and e.g. classroom teaching cannot take place if both students and teacher is not present (08/14)
3. Logistics & Supply Chain adds to the input by removing the mismatch between the and points in terms of , and (06/20)

PLEASE CHOOSE A WORD FROM THE WORD BANK GIVEN BELOW:

<i>time</i>	<i>unit-level</i>	<i>economic value</i>	<i>project</i>
<i>operational</i>	<i>source</i>	<i>manufacturing</i>	<i>co-produced</i>
<i>place</i>	<i>logistics</i>	<i>fixed-period</i>	<i>supplier</i>
<i>service</i>	<i>cyclic</i>	<i>corporate-level</i>	<i>product</i>

Section B

Marks 05x04^Q = 20

Question # 02: WRITE NOTES, TO-THE-POINT and, NOT MORE THAN THREE-QUARTER PAGES per topic.
CHOOSE ANY FOUR (4) TOPICS

- With reference to article “*What is the Right Supply Chain for your Product?*” by Marshall L. Fisher, what is the Product Design Strategy, Supplier Selection Approach, Manufacturing Focus, Inventory Strategy and Lead Time Focus for Functional and Innovative Products?
- With reference to article “*What is the Right Supply Chain for your Product?*” by Marshall L. Fisher compare and distinguish Functional Product with Innovative Product on various aspects such as Product Life Cycle, Product Variety, Contribution Margin, Mark Downs, Variety etc.
- With reference to article “*Building The Triple-A Supply Chain*” by Hau L. Lee, define and distinguish Agility, Adaptability and Alignment in a Supply Chain.
- Logistics & Supply Chain discipline has since grown fast and into a large body knowledge, hence there are many perspectives of this domain. What is its Conceptual, Operations, Quality, Process and Evolution perspective?
- How does outsourcing effect Return on Assets (ROA) and Break Even Point (BEP); discuss with reference to 3PL and 4PL Companies who offer Logistics & Supply Chain Solutions.

Section C: ANSWER ANY TWO (2) QUESTIONS GIVEN BELOW

Marks 15x02^Q = 30

Question # 03:

Wal-Mart is one of the large discount retail stores in the world. Financial year ending in March 2018, their world-wide sales revenue was 480 billion US\$ through 11,718 outlets across a product portfolio of about 170 million. Average product price is about 200 US\$.

Wal-Mart is using advanced IT Infrastructure for quick data transfer and computation. It has a policy to replenish within twelve-hours cycle time i.e. the goods sold in the forenoon (AM) will be replenished by afternoon (PM) of the same day and those sold in the afternoon (PM) by next day forenoon (AM) so that the display-rack stock is well maintained.

Calculate the through-put velocity of Wal-Mart’s supply chain i.e. the replenishment speed for the stores in terms of number of products replenished per twelve-hour cycle time i.e. AM-PM and PM-AM.

Question # 04:

Mothers’ Pickle is manufactured at its Chennai plant and distributed throughout the country by four regional distribution centers and a network of whole-sellers to the point-of-sale viz., retailer. Consider the following:

Company policy is to carry stock equal to one week's sales at the three stocking points viz., finished goods store, regional distribution center and whole-seller; same for one each is given below. Company follows safety stock norms as 1.2 standard deviations to take care of the fluctuations in demand during lead time. Stock replenishment is done on a weekly basis. Average transit time, in weeks, for distribution to Dehradun is given below.

Calculate the Supply Chain Stock at FG Store, per Regional DC and per Whole-seller and in-Transit stock.

Parameter	Units	Finished Goods Store	Regional DC (one Regional DC)	Whole-seller (one Whole-seller)
Average Weekly Stock/Sales	Cases	20,000	1,000	200
Standard Deviation		2,000	200	20
Transit Time	Weeks		1.5	1.0

Question # 05:

Given below is a Purchase Order of *Maa-Beti* chain of stores, Dehradun on Hindustan Unilever Ltd.(HUL). The quantity supplied is given in *italics* in the last column. This order-execution is typical in Dehradun.

Mr. Champak Lal, Regional Manager for Logistics & Supply Chain in HUL is in a meeting with the Product Manager, Personal Care Products, Mr. Uma Shankar. Help Mr. Champak Lal to do the following:

Sl. #	Item Description	Unit	Order Quantity	Price	Order Amount	Quantity Supplied
01	Pears	: Carton	20	600	12,000	<i>15</i>
02	Dove	: Carton	10	500	5,000	<i>15</i>
03	Lux	: Carton	25	800	20,000	<i>10</i>
04	Lifebuoy	: Carton	10	800	8,000	<i>10</i>
05	Rexona	: Carton	5	400	2,000	<i>0</i>
06	Liril 2000	: Carton	40	50	2,000	<i>40</i>
07	Hamam	: Carton	10	400	4,000	<i>10</i>
08	International Breeze	: Carton	30	800	24,000	<i>0</i>
T O T A L			150		77,000	<i>100</i>

- Calculate the *customer service performance* metrics in terms of various *fill rates* (Marks 10)
- Based on which *metrics* would you suggest Mr. Champak to take a decision and, why? (Marks 05)

Section D

Marks 30

Question # 06: With reference to the case-let given below answer the following questions:

- What is *lean supply chain*, *agile supply chain*, *postponement* and, *de-coupling point* ($4^0 \times 2.5^M = 10^M$)

2. Zara has created a *leanegile supply chain* for itself. How did they do it in, *apparel designing, sourcing, stocking, production and warehousing* ($5^Q \times 4^M = 20^M$)

Zara: Fashion is Not for the Rich Alone

Zara is a chain of fashion stores owned by Inditex, Spain's largest apparel manufacturer and retailer. In 2004, Inditex reported sales of 13 billion euros from more than 2200 retail outlets in 56 countries. The company opened a new store every day in 2004.

In an industry in which customer demand is fickle, Zara has grown rapidly with a strategy to be highly responsive to changing trends with affordable price. Zara has set the industry standards for time-to-market, costs, order fulfillment and customer satisfaction.

At the heart of this organization's success is a vertically intra-organization integrated business model that spans design, just-in-time production, sourcing, warehousing, marketing and sales. This model gives Zara more flexibility than its rivals to respond to fickle fashion trends.

Design-to-sales cycle time in the apparel industry traditionally average at more than six months – but, Zara has achieved cycle times of five to six weeks. This speed allows Zara to introduce new designs every week and to change 75 percent of its merchandise display every three to four weeks. Thus, Zara's products on display match customer preferences much more closely than the competition. As a result, Zara sells most of its products at full price and has about half the markdowns in its stores compared to the competition.

Zara manufactures its apparel using a combination of flexible and quick sources in Europe (mostly Portugal and Spain) and low-cost sources in Asia. This contrasts with most apparel manufacturers, who have moved most of their manufacturing to Asia. Also, unlike other international clothing chains, Zara makes more than half of its clothes in-house, instead of relying on a network of suppliers. About 40 percent of the manufacturing capacity is owned by Inditex, and the rest is out-sourced.

Products with highly uncertain demand are sourced out of Europe, whereas products that are more predictable are sourced from its Asian Locations. More than 40 percent of its finished-goods purchases and most of its in-house production occur after the sales season starts. This compares with less than 20 percent production after the start of a sales season for a typical retailer. This responsiveness and the postponement of decision – a lean supply chain technique - until after trends are known allow Zara to reduce inventories and forecast error. In addition to this Zara acquires grey fabrics (only four colors) and delays committing these fabrics to the dyeing and printing operations until the last stage of production. By delaying commitment of the fabric to special colors, Zara substantially reduces the markdowns plaguing the textile and apparel industry.

Zara has also investment heavily in information technology to ensure that the latest sales data are available to drive replenishment and production decisions. Zara keeps designers attuned to changing customer preferences. Its sales managers send timely customer feedback from its 450 retail stores to in-house designers.

Until 2002, Zara centralized all its European distribution and some of its global distribution through a single distribution center (DC) in Spain. It also had some smaller satellite DCs in Latin American countries. Shipments from the DCs to stores were made twice a week. This allowed store inventory to closely match customer demand. As Zara has grown, it has built another distribution center in Spain.

As a result of better-managed inventories, reduced obsolescence, and tight linkages between demand and supply, Zara is well positioned to gain market share.