

VPM's
DR VN BRIMS, Thane
Programme: MMS (2017-19) (Operations)
Third Semester Examination October 2018

Subject	Supply Chain Management		
Roll No.		Marks	60 Marks
Total No. of Questions		Duration	3 Hours
Total No. of printed pages	2	Date	31.10.2018

Q1) 20 Marks (Compulsory)

A) If the actual order quantity at the retailer level is 545 instead of 500. Analyze the bullwhip effect at each level (Wholesaler, Distributor and Factory). The details regarding cost, demand, lead-time are as per the below table:

Description		Retailer	Wholesaler	Distributor	Factory
Order Quantity	Q	500	300	447	698
Yearly Demand	D	10,000	10,000	10,000	10,000
Work-Days per Year		250	250	250	250
Deliveries Per Year		20	33	22	14
Ordering & Setup Cost	S	\$75.00	\$25.00	\$50.00	\$100.00
Holding Cost	H	\$6.00	\$5.55	\$5.00	\$4.10
Delivery Leadtime (days)	L	5	1	10	7
Reorder Point	R	200	40	400	280

B) Source: The Economic Times dated 7th September 2018

NCLAT wants to know India business models from Wal-Mart International

The National Company Law Appellate Tribunal (NCLAT) has asked US retail major WalMart and e-commerce major Flipkart to explain their way of doing business in India. NCLAT, which is also an appellate authority over the Competition Commission of India (CCI), has asked Wal-Mart International Holdings Inc to file its reply before it by September 20, 2018. It has also asked trader's body CAIT, which has filed an appeal before NCLAT challenging the go ahead by fair trade regulator CCI on Walmart's USD 16 billion acquisition of home-grown Flipkart, to file its understanding over the Walmart's business model in India. "Before going into the merit of the appeal, we intend to know the manner in which Wal-Mart International Holdings, Inc. and Flipkart Private Ltd do their business in the relevant market in India," said an NCLAT bench headed by Chairman Justice S J Mukhopadhaya. The tribunal further said: "The appellant (CAIT) may file relevant list of dates and their understanding of sales by Respondent No 2 (Wal-Mart International) by way of an additional affidavit within a week thereof." NCLAT has directed to list the matter on October 5 'for admission' of Confederation of All India Traders (CAIT) petition opposing approval granted by the CCI on August 8 to the Walmart-Flipkart deal. Last month, while clearing Walmart's USD 16 billion acquisition of Flipkart, the CCI opined that complaints about the deal violating FDI rules "may merit policy intervention" but do not fall under its ambit. The CCI had said it is "not likely to have an appreciable adverse effect on competition in India and therefore, the same is hereby approved." It had observed that the complaint about Flipkart's discounting practice or preference to select e-tailers is not specific to this merger deal and is "already prevalent" in the market.

Why do you think that NCLAT has asked Walmart to explain their business model in India? Comment on Walmart's SCM strategy in India.

Attempt Any FOUR from the Remaining SIX Questions

Q2) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) Analyze the effect of following situations on demand uncertainty.
1. Range of quantity required increases
 2. Lead time decreases

3. Variety of products required increases
 4. Required Service level increases
 5. Number of channels increases
- b) Explain how “Risk Pooling” affects aggregation of the demand and reduction of the variability.
- c) How warehouses do value additions apart from just working as storing houses? Explain with an example.

Q3) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) A Situation in which marketing is publicizing a company’s ability to provide the large variety of products quickly; simultaneously, distribution is targeting the lowest cost means of transportation. Explain the conflict in the two strategies and how the objective of the organization can be achieved.
- b) A product has yearly demand of 10000 quantities, Number of working days per year are 250. Lead time to get the inventory from the supplier is 5 days. Calculate re-order point quantity.
- c) What kind of distribution network Flipkart majorly use in India? Comment on the selection of the network.

Q4) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) Table provides the distribution cost per unit:

	Plant 1	Plant 2	Market C1	Market C2	Market C3
Warehouse 1	0	4	3	4	5
Warehouse 2	5	2	2	1	2

Situational Constraint: Plant p2 has an annual capacity of 60,000 units

Markets C1, C2, C3 has the demand 50,000, 100,000 and 50,000 respectively

Two plants have same production costs.

Minimize the distribution cost and decide the flow of products from plant through warehouses to market areas C1,C2, C3

- b) How will you measure the supply chain performance on operational metrics. Explain with example.
- c) How to measure the supply chain vulnerability with respect to risk index.

Q5) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) What are the applications of different types of the containers? Justify their uses
- b) Why dry ports are constructed? Explain the benefits.
- c) How 4PL is different than 3 PL?

Q6) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks.

- a) Design the format for Purchase Order by taking the example of your choice.
- b) Why to do supplier integration? Explain the benefits.
- c) How will you design the distribution channel? Explain with an example.

Q7) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) Discuss the capacity options available under the following situations:
 - If the Demand is slightly more than capacity,
 - If the Demand is at higher side than capacity
 - If the Demand is lower than capacity
- b) Discuss the process/framework of E-procurement
- c) Explain any three of the following with an example for each.
 - 1) Stock out rate
 - 2) Fill rate
 - 3) Inventory turnover ratio
 - 4) SCOR Model