



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics Management

June 2011

PAPER-5

LOGISTICAL SYSTEM OPERATION

Date: 11.06. 2011
Time: 2.00 p.m. to 5.00 p.m.

Max Marks: 100
Duration: 3 Hours

Instructions:

- 1) Part A- Answer all questions
- 2) Part B-Answer any three questions
- 3) Part C -Compulsory

Total Marks=32
Total Marks=48
Total Marks=20

PART - A

Q.1 True or False

Marks (8)

- a) A warehouse is typically viewed as a place to store inventory.
- b) An assortment warehouse which may be utilized by manufacturers, wholesalers or retailers stocks a combination of products in anticipation of customers orders.
- c) Service benefits gained through warehouse by suppliers in a typical logistical system always reduces cost.
- d).Warehouse of large firms cannot be used to postpone or delay production.
- e) Many possible warehouse services exist that involve more then just inventory storage
- f) The warehouse design should always be single story so that products are not necessarily moved up and down.
- g) Full warehouse utilization throughout the year is possible for perishable products
- h)The prime factors in site selection of warehouse are the availability of services and cost considerations

Q.2. Fill in the blanks.

Marks(8)

- a) _____ warehouse are licensed by the government to store goods prior to payment taxes and duties.
- b) _____warehouses provide financial flexibility and scale economy to the company .
- c) Shipment _____is an economic benefit of warehousing of products.
- d) _____ of a warehouse depends on the material handling system & requires development of floor plan to facilitate product flow
- e) A _____ operation receives combined customer orders from manufactures and ships them to individual customers.
- f) _____ specifies the amount and timing of significant financial investments for logistics resources.
- g) _____ or _____ requirement results from uncertainty concerning future sales and inventory replenishment.
- h) _____ is the prediction of demand by location, stock keeping unit and time period for planning logistics operation.

Q.3. Give full-form of the following.

- | | | | |
|--------|--------|---------|---------|
| 1. SKU | 2. POQ | 3. AGVS | 4. ASRS |
| 5. LIS | 6. WAN | 7. TOFC | 8. LTL |

Q.4 Explain the following : Any 4

- | | | |
|-------------------------------|--------------------------|-------------|
| 1) Mean Absolute Deviation | 2) Pick to light systems | 3) Robotics |
| 4) Stores' Personnel Training | 5) Consolidation | 6) EOQ |

PART – B

Q.5 What are the different types of packaging materials which are used in industrial environment and their advantages and disadvantages?

Q.6 Explain in detail the Logistics Location Structure and factors which are considered while deciding the location of warehouses.

Q.7 What do you understand by the concept of Unitization? How the Unitization helps in logistics for a large firm .

Q.8. What are the different modes of transport for the materials and their relative importance?

Q.9. Write short notes (Any four)

- | | |
|--|----------------------------|
| a) Economic benefits of Warehousing | b) Stock Piling |
| c) Contract Warehouse | d) Bar Coding and scanning |
| e) Artificial Intelligence / Expert system | f) Warehouse Productivity |

PART- C

Q.10. CASE STUDY

Mr. S. K. Gupta, Director (Operations) of M/s Priya Cosmetics Limited Bangalore thundered.

“Whom should I hold responsible amongst the three of you?” thundered He continued, “How can you show wrong stock figures like this? These wrong figures have really put me in a bad position. How do I face my other Director-colleagues? I cannot tolerate this kind of irresponsibility any more! I have given you all enough chances in the past to mend your ways and yet, I do not find any improvement in Stores. I have no other option but to take disciplinary action against one of you! Please decide who among you three should be penalized.

Mr. Shankar (Stores Manager), Mr. Ganeshan (Stores Executive) and Mr. Pinto (Stores Officer) did not know how to react to Mr. Gupta’s outburst!!

Company Background

M/S Priya Cosmetics Ltd. was a fast growing cosmetics manufacturing company, known for dynamism & for its innovative practices. The Sales turnover last year was Rs. 350 crores and for the current year, the Management has set a target of Rs. 420 crores. The Company had planned to launch a number of new products during the year, to achieve this target. The normal policy of the company was to launch its new products overseas first and if successful, launch the product subsequently in India. It also had a very good reputation for quality, both in the final product and in the packaging materials.

The company had a manufacturing unit of its own in Bangalore and 5 job-workers (also known as Loan Licensees) in Bangalore itself. Each of these units had their own manufacturing license Number and as a result, the material printed with a particular license number could not be used at another unit.

During the last three years, the organization had changed the printing design of its packaging materials thrice. The objective was two folds- to stay at the top and also to push its sales through attractive packaging.

The Stores Department

Company's Stores Department was always under severe pressure to ensure that materials are received, stored and issued properly. The Company was growing fast and yet, Stores was a neglected Department. While all other departments were responding quickly to the ever-changing scenario, Stores was a bit slow in responding to the changes.

There were no proper "Stock Accounting" systems at Stores. The Stores had never carried out the excise of annual or periodic Physical Stock taking. As a result, one could find variation between Book Stocks & physical Stocks of almost all the items handled by Stores.

As mentioned earlier, the Company was growing very fast and lot of staff had been recruited to meet the increased workload. While almost all the departments had been allowed to hire fresh personnel, the Stores were not allowed to do so, primarily because the Top management did not consider it to be an important Function!

The Staff at Stores had to, as a result, work overtime in the evenings almost every day and also during Holidays (including the weekly –offs). Every staff in Stores was over-loaded & over-worked. They were all a tired lot!!

While the Stores Manger was aware of the various Management tools available to control/manage Inventory, the lack of time and inclination on his part had an adverse effect and the Stock levels were only going up month after month. There was absolutely no sign of any reduction. The lack of a proper IT system too complicated the matter further!

Due to frequent changes in designs and discontinuation of some products, the stores had lot of non-moving items. Most of these were old designs items. In addition, these had different Manufacturing License Numbers.

One good development was that the Stores had recently started a system of reviewing all the old stocks every two months, with a view to salvage such materials or destroy (after obtaining necessary approval from Mr. Govind, Director-Marketing) the same.

The Problem

About two months back, Director-Marketing had decided to make changes in the design once again. Before implementing the change, he had wanted to know the stocks of materials with the current design. He had contacted Purchase Department & Mr. Harish, the Purchase Executive had checked up the IT System, noted the current Stocks and had e-mailed the figures to Directors-Marketing.

During the recent 'Inventory review Meeting', Mr. Govind had found that the figures brought by the Stores Manager were not matching with the figures he got from Mr. Harish of purchase Department. Almost all the Stock Figures provided by Stores Department were on the higher side. Mr. Govind had become furious due to this and wanted to find out the reason for the difference, though the total value of the difference was not more than Rs. 7.00Lakhs. He even expressed his displeasure to Mr. Gupta, Director-Operation about this.

Mr. Gupta was also unhappy about this issue and wanted to go to the bottom of the whole episode. Immediately, he called a meeting of all the Stores Personnel to find out the reasons. Stores Staff brought all their Records to the Meeting Room and during the meeting, Mr. Gupta found out that the records showed a third set of figures! Mr. Ganeshan (Stores Executive) and Mr. Pinto (Stores Officer) were the persons who handled this area and they failed to give a proper explanation about the mismatches!!

Mr. Gupta then demanded an immediate explanation from the Stores Manager. Mr. Gupta also expressed that he would like to take a disciplinary action against the culprit and wanted to know from all the three as to who among the three should be held responsible for the goof-up!!

Upon investigation, Mr. Shankar found out there were lapses by various persons. First of all, he realizes that Mr. Hatish of Purchase Department had furnished the wrong figures to Mr. Govind.

Mr. Hatish was just about 1 year old in the company. When Mr. Govind asked for the stock figures, he had checked up the IT System and had the manufacturing License of the own unit of M/S Priya Cosmetics Ltd. In fact, he was not even aware that there were other stocks with some other manufacturing License numbers. Unfortunately, Mr. Hatish had not even bothered to check with Stores about the veracity of his Figures. Nor he had bothered to mark a copy of the e-mail to Stores.

Secondly, Mr. Shankar was dismayed to learn that his staff had made mistakes while handing over details to him. They had not checked the stocks physically. They just gave the Book Figures to Mr. Shankar for the 'review' purpose. Subsequently, they had done the physical checking and had got the correct stock figures. But, they forgot to inform in time Mr. Shankar about the discrepancy, though they corrected the figures in their own records.

As a result, during the Investigation Meeting with Mr. Gupta, they sprang a surprise on everybody by displaying the third set of stock figures!!!

Questions

1. What exactly was the problem at Stores & why were they having these problems.
2. What steps the Stores Manager needs to take immediately to overcome these issues permanently?
3. As we know, there are 8 models of Selective Inventory Control. Which of these could have been used by the Stores Manager to avoid such unpleasant circumstances? Justify your answer with proper explanation.
4. What modern techniques do you recommend to streamline the functioning of Stores and why?
