

**VPM's**  
**DR VN BRIMS, Thane**  
**Programme: PGDM (2014-16)**  
**Third Semester Examination April 2015**

<b>Subject</b>	<b>Operations Management II</b>		
<b>Roll No.</b>		<b>Marks</b>	<b>60 Marks</b>
<b>Total No. of Questions</b>		<b>Duration</b>	<b>3 Hours</b>
<b>Total No. of printed pages</b>	<b>3</b>	<b>Date</b>	<b>15-04-2015</b>

**Section A:** Answer any four questions out of six. . Marks 20 each question carries four marks.

**Section B:** Answer any three questions out of five. Marks: 30. Each question carries ten marks.

**Section C:** Compulsory, Marks: 10. This question carries 10 marks.

**Section A**

1. Your HR manager asks you to design the job description of an Operation manager. What are the essential attributes of a good Operations manager you wish to write down for a good operation's role?
2. A lot has been talked about services economy. How do services organizations differ from manufacturing organizations in terms of operations?
3. Why is productivity measurement more difficult in case of services organizations like hospital as compared to an automobile unit?
4. What do we mean by the term inventory management? Why is the need to focus on it?
5. What do you mean by capacity planning? Why is there a need to plan capacity?
6. What is learning curve and how it can be used in production and operations management?

**Section B**

1. Consider that in a hospital 6 patients (A, B, C....) wish to take appointment and they wish to undergo two stage processes. One is the general checkup and second blood test in the same order. Time required by each patient is in the data sheet. Sequence the patient's appointment so that the idle time in the hospital is least and also compute the total time required by the doctor in the hospital.

<b>Patients</b>	<b>General check</b>	<b>Blood test</b>
A	5	4
B	2	3
C	13	14
D	10	1
E	8	9
F	12	11

2. What advice would you give managers about developing an operations strategy, given that international financial conditions are changing rapidly? Defend your advice.

3. Give the reason why production management has evolved as a specialized subject? Design an input - out model for an industry of your choice and explain with reference to the operations functions. Also create a value chain with justification.
4. You are a CEO of a large retail company. You have around 110 retail outlet in India. You wish to create a system through which you could manage the flow of material to your stores and also manage you inventory. You have to share your views with your MD with regards to all the above concerns.
5. Please share the process map for ONLINE Supply chain management .

## **Section C**

### ***Bill's Hardware***

It had been a very busy week at Bill Murton's hardware store. A storm had blown through early in the week, and sales of tools and repair parts had been brisk. This morning was relatively quiet, however, so Murton was using it as an opportunity to look over his shelves to get an idea of inventory levels. Some items had sold much less than he would have expected; others had sold out completely.

I sure wish I could predict what will be sold each week, he mused. It seems like I always have too much of some things and not enough of others. I wonder if the POS system that our cooperative is considering would help me deal with this uncertainty.

Bill's Hardware is a member of a hardware store cooperative, a group of more than 300 independently owned hardware stores that banded together for greater buying power and better merchandise distribution. Many of the items carried by a typical hardware store are similar. By buying these items as a group and storing them at a few centrally located distribution centers, individual stores can achieve economies of scale, allowing them to compete better with large nationwide chains. The cooperative is member owned. An annual membership fee and a service charge are applied to the cost of the items that a store purchases through the cooperative. Any revenues generated beyond the cooperative's operating costs are returned to members as a dividend.

Typically, a member store reviews inventory once a week and places orders that will bring stock back up to a target level. That level is the quantity of an item that, based on the time of year, the store owner wants to have on the shelf. Owners place orders by using a PC-based software program and a modem over a dial-up telephone connection to the cooperative's computer. The cooperative leases a fleet of trucks to deliver goods weekly to member stores from one of three distribution centers. Each geographic area receives shipments on a designated day. Surges in demand, if detected, can be met by midcycle orders shipped via UPS.

Target inventory levels are based on forecasts made from historical information kept in the store's inventory database. These forecasts are adjusted by the owner's past experience and information gleaned from trade journals and from listening to customers. Additionally, the cooperative makes aggregate sales data from member stores available, along with projected demand trends. The challenge for the store owner is to project weekly requirements accurately and to detect unusual demand for items that exceed inventory in time to avoid stockouts.

### **THE POS SYSTEM**

The cooperative's directors have formulated a plan to obtain and install point-of-sale (POS) technology in members' stores. The motivation is to take advantage of

technology that can allow the distribution center to know, in real time, what items are being sold in various stores. Armed with this information, the cooperative can improve its product forecasting, make better purchasing decisions, and reduce the chance that an item will be out of stock at distribution centers. Although the original plan was to make installation of the system mandatory, the cooperative's directors decided that such a requirement could place an excessive burden on some of the smaller or less profitable stores. Consequently, installation will be optional.

The POS system is to comprise a scanning device attached to a cash register that operates with a microprocessor. This cash register will be networked to a PC so that an item's current price can be obtained for checkout and a perpetual inventory maintained. Each night, the distribution center will telephone the store's computer, which will answer and download the day's sales. At the end of the business day, the store owner can also review the day's sales and determine current inventory levels. The system will be designed to detect any items likely to sell out. The owner can tag any item, permitting an order to be placed that night (when the distribution center calls) for midcycle delivery.

The cost of the POS system will be borne by individual stores but, because of combined purchasing power, systems can be obtained for 40 percent less than list price. The cooperative's directors propose that each distribution center contract with an installer to do on-site equipment installation at individual stores. However, individual store owners would be allowed to have local technicians do the installation. The cost of system installation at the distribution center will be borne by a one-time assessment of all member stores, whether or not they install and use the system.

A two-day training session will be conducted at distribution centers whenever five or more store owners have installed the system and are ready to learn how to use it. Optionally, store owners can travel to the POS vendor's home office in Atlanta at their own expense for a two-day training session, which is to be offered once a month.

A vote has been scheduled prior to the cooperative's annual members' meeting. Members are asked to vote "yes" or "no" on the proposal, and a majority of those voting will determine the outcome.

As Bill Murton completes his shelf scan and returns to his office, he thinks to himself: Since the new POS system will automatically track inventory, I wonder if I will still be able to get a gut feel for what is selling and what is not. There is nothing like examining the shelves like I just did and talking to customers to understand what I should be stocking. And, I wonder how much it will cost to run the system once it is installed?

## **QUESTIONS**

1. How will a POS system enhance the operations of Bill's Hardware? How will it enhance the operations of the cooperative?
2. What strategic advantages will the system confer on Bill's Hardware? What strategic advantages will accrue to the cooperative?
3. What criteria should be considered when assessing the benefits of the POS technology? What costs should be included?
4. How should Bill Murton vote?

Note: Please make assumptions if necessary.