VPM's
DR VN BRIMS, Thane
Programme: MMS (2015-17)
First Semester Examination December 2015

Subject	**Operations Management**		
Roll No.		**Marks**	**60 Marks**
Total No. of Questions	**7**	**Duration**	**3 Hours**
Total No. of printed pages	**3**	**Date**	**19.12.2015**

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.

Q1) 20 Marks (Compulsory)

a) **Case Study : Renault's Ride into India** **10 marks**

Attracted by the growing market for automobiles that exists in India, various foreign automobile manufacturers have entered the country. One of them is Renault S.A., a France based company.

Since its inception in 1899, Renault has steadily increased its presence in Europe and other parts of the world and is known for producing innovative, high quality cars. But it was not well known in India until 2007. This is the year when an attempt to manufacture low-cost versions of its own cars and increase the visibility of its brand in the Indian market, Renault formed a joint venture called Mahindra Renault with Mahindra and Mahindra Limited (M&M), a leading Indian automobile manufacturer. The first offering of Mahindra Renault was the Logan. This car did increase awareness about the Renault brand in India, but it turned out to be more expensive than the other cars in its segment. Mahindra Renault had sourced most of the parts of the Logan from abroad, and so it had been unable to keep its manufacturing costs low.

The lackluster sales of the of the Logan caused Mahindra Renault to suffer a huge loss, and it was dissolved in 2010. However, this did not discourage Renault from investing further in the Indian market. It entered into a special licensing agreement with M&M so as to allow it to manufacture and sell the Logan under a different name Mahindra Verito. In addition, it slowly started expanding its operations in India.

The next significant move of Renault was to set up a manufacturing plant in Chennai for the Renault- Nissan alliance, a partnership that it had formed in 1999 with the Nissan Motor Corporation Japan. By sharing a plant, both Renault and Nissan could reduce their manufacturing costs and achieve economies of scale. They achieved further cost savings and reduced their time to market through rebadging or badge engineering. Rebadging refers to the practice of a company marketing a product developed by another company as its own. The Nissan Micra and its rebadged version, the Renault Pulse, are both manufactured at the Chennai plant.

In addition to the pulse, Renault manufactures and markets a few other cars, such as the Fluence, the Koleos and the Duster, in India. All these cars managed to generate the buzz among Indians, but it was only with the Duster that Renault could increase its sales volumes in the Indian market. The Duster has won many awards in India and has been acclaimed for its classy looks, elegant interiors and competitive pricing.

Now, Renault is aiming to increase its profits by developing a small, low-cost car that can find a mass market in India. It is using the concepts of frugal engineering to develop this car. This means that it will keep the design of the car simple, eliminate non-essential features, and use low-cost components. Renault also intends to use India as a testing ground for this car, so that it can later launch it in other parts of the worlds.

Que 1. How does the Renault's operations strategy provide competitive advantage

Que.2 Is it likely that Renault has increased productivity over over its more traditional competitors? Why ? How would we measure productivity in this industry?

b) **Match the following :** **5 marks**

I.	Standardized product :	a)	Alter demand to match capacity
II.	Heterogeneity	b)	Elimination of superfluous varieties
III.	Simplification	c)	Alter capacity to match demand
IV.	Proactive strategy	d)	High variability in the operation
V.	Reactive Strategy	e)	Products available off-the-shelf

c) **Fill in the blanks :** **5 marks**

1) _____Is a process by which key operations decisions are made that are consistent with the overall strategic objectives of a firm
2) _____ Characteristics of a firm that distinguish it from its competition so that it is selected as the source of purchase
3) _____is Design capacity minus allowances such as personal time, maintenance, and scrap
4) _____ established in 1996 is an international standard to provide all industries with a structure for an environmental management system
5) Quality is conforming to the _____" Phillip. B. Crosby

Attempt Any FOUR from the Remaining SIX Questions

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

a) Strategy is about making choices, trade-offs; it's about deliberately choosing to be different. By ***Michael Porter***. How you will justify this statement?

b) If you want to start a new business, What are the different factors are to be considered for deciding the plant location?

c) Seven jobs must be processed in two operations: A and B, All seven jobs must go through A and then B sequence. Only determine the optimal order in which the jobs should be sequenced through the process using following information.

Job	Process A in hrs	Process B in hrs
1	9	6
2	8	5
3	7	7
4	6	3
5	1	2
6	2	6
7	4	7

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

a) Mr. Shrivastava is owner of company "ABC Ignitions Manufacturing wants to expand his capacity, for which he has short listed three locations viz, Chakan, Auragabad and Nashik. The company wish to find the most economical location for an expected volume of 2000 units per year. In his Cost –volume analysis he finds that fixed cost per year at the sites are Rs. 300000, 600000, 1100000 respectively and variable costs are 750, 450 and 250 per unit respectively. Find out which location suits to the given capacity.

b) Compare job shop process with continuous process with example and at least on

5 points.

c) Explain what is job design and what are its objectives?

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

a) The following table contains information regarding jobs that are to be scheduled through one machine, use FCFS, EDD SOT LCFS rules and analyze which priority rule is best in terms of delivering orders on time and keeping minimum backorder time.

Job	Processing Time in days	Due date
A	4	20
B	12	30
C	2	15
D	11	16
E	10	18
F	3	5
G	6	9

b) What is ERP? Also discuss its features in brief.

c) What are the Quality features of the Product and services?

Q5) ***Any one from (a) or (b) ———— 10 Marks***

a) What is MRP? Discuss the inputs and outputs of it in details

b) What are the major process decisions have to be taken by an operations manager. Explain each in details.

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

a) Assume that Company “x” is thinking of going in for product development what would be the factors responsible for this decision?

b) Explain what is Global Warming.

c) How project (management) production is different than the other production systems in terms of its characteristics?

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

a) ISO 9000

b) TQM

c) Aggregate planning