

**MBA – MARKETING/FINANCE/HR/  
PRODUCTION & OPERATIONS  
MANAGEMENT (MBABM)**

00484

**Term-End Examination**

**December, 2014**

**MBM-011 : PRODUCTION AND OPERATIONS  
MANAGEMENT**

*Time : 3 hours*

*Maximum Marks : 100*

**Note :**

- (i) *Section I is compulsory.*
- (ii) *In Section II, solve any **five** questions.*
- (iii) *Assume suitable data wherever required.*
- (iv) *Draw suitable sketches wherever required.*
- (v) *Italicized figures to the right indicate maximum marks.*

**SECTION I**

1. Read the following caselet and answer the questions :

Roots Corporation Limited is a fully owned subsidiary of the Indian Hotels Company Limited (IHCL); which is a part of the Tata Group. With more than 90 properties, IHCL is India's largest hotel chain. It has been in the

hospitality sector for over a century. Roots Corporation Limited operates a group of hotels under the brand name Ginger Hotel.

The first hotel was launched in Bangalore, in June 2004. The hotel arranges wedding parties to the utmost satisfaction of the customers. They have an Operations Manager, who is responsible for :

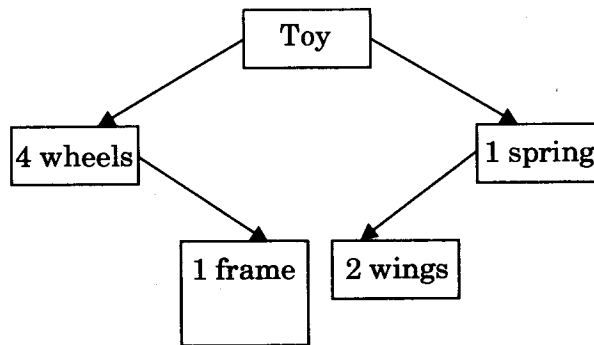
Forecasting, Capacity Planning, Scheduling, Managing Inventories, Assuring quality.

They appointed a Production Manager, who is the main chef, who looks after the supervision for preparing a variety of foods in their restaurants, and for the guests in the weddings and other parties.

- (a) What are the tasks of the Operations Manager with respect to the different areas as Forecasting, Scheduling etc. described above (Enlist and explain at least 2 tasks in each of the 5 areas) ? 20
- (b) How will you distinguish the Operations Manager from the Production Manager in terms of
- (i) Authorities, 5
  - (ii) Duties and responsibilities ? 5

## SECTION II

2. East West Seeds Limited purchases 12,000 litres of a high grade chemical every year. The cost of the chemical is ₹ 200 per litre. The company spends ₹ 100 to place the order for the chemical. The storage requirement for this chemical is very stringent and needs a sophisticated warehouse. The cost of running the warehouse accommodating 12,000 litres of chemical is ₹ 24,000 per year. This cost is linearly proportional to the quantity of the chemical.
- (a) How many litres of chemical needs to be ordered so that the total of ordering cost and warehouse running cost is the minimum ? 5
- (b) Determine the order cycle time. 2
- (c) Total cost (inventory and item purchase cost) 3
- (d) Draw the inventory replenishment and consumption graph. 4
3. Kid Station Toys Limited (Ahmedabad) uses wheels, spring, wings and frame to assemble a specific toy. The quantities and the assembly (product) structure is shown in the following figure :



The demand for the next 6 weeks for the toy is referred through MPS (Master Production Schedule).

Master Production Schedule for the next 6 weeks period is as below :

Week	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>
Toy	40 pieces	45 pieces	35 pieces	40 pieces	40 pieces	30 pieces

The following table describes the inventory details :

Specification	Inventory in stock	Ordering policy	Order Lead time
Wheels	30	Lot for Lot	1 week
Springs	10	Lot for Lot	1 week
Wings	50	Lot for Lot	2 weeks
Frames	50	Lot for Lot	1 week

Prepare the MRP for wheels, spring, wings and frame. 4+4+3+3

4. (a) How can the Just-in-time (JIT) principle be observed in Indian Railways ? Support your answer by giving suitable examples (at least 5 examples are needed). 10
- (b) Is the Plan-Do-Check-Act (PDCA) cycle essential in designing a new car ? State Yes or No, with justification. 4

5. (a) Draw a “P” chart for the following observations and state your comments on the process.

Lot number	1	2	3	4	5	6	7	8
Number of defectives	10	12	29	20	8	9	10	11

Sample size in each lot is 300. 4+4

- (b) “A histogram displays the performance of a process.” Justify this statement by giving an example. 6
6. (a) How will you implement “5 S” in a restaurant ? Answer with a suitable example for each “S”. 10
- (b) The Economic Order Quantity derived in an inventory control maintains the total inventory cost to the minimal. State True or False, with justification. 4
7. (a) You are given the responsibilities of taking care of overall operations in International Airport in Mumbai. Write in detail about  
The tasks you will work upon, Formation of team, Strategy, Tools to be used and Implementation steps.  
Consider three tasks. 4+4+4
- (b) Write the concluding remarks for the above. 2