



Plot No. 2, Knowledge Park-III, Greater Noida (U.P.)–201306

**POST GRADUATE DIPLOMA IN MANAGEMENT (2017-19)
END TERM EXAMINATION (TERM -II)**

Subject Name: **Operations Management**
Sub. Code: **PG-14**

Time: **02.00 hrs**
Max Marks: **45**

Note: 1. Writing anything except Roll Number on question paper will be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. All questions are compulsory in Section A, B & C. Section A carry 2 Case Studies of 10 marks each, Section B carries 2 questions of 7.5 marks each and Section C carries 5 questions 2 marks each.

SECTION - A

10×02 = 20 Marks

Q. 1: Read the Case Study and answer the questions below:

Consulting and Enterprise Solution:

Business Situation:

An automotive company operating in 10 business segments and 85 manufacturing facilities wanted to improve its ability to manage upcoming technological changes. It wanted to automate several manual process. Its goal to improve response time, productivity, secure intellectual property and improve team work and collaboration within the organization. It is having 2500 engineers working across the globe. Although objective were straight forward but there were some challenges too. For example:

- Product development processes were not similar across location and product line.
- The company used repeated systems to manage product information leading to duplication of parts and sub-assemblies.
- Cross-company data collection, monitoring and analysis were inconsistent across globe.
- Collaboration between cross-functional teams was not proper and sufficient.
- No system could find the impact of design on product development cost.
- The product development time and cost were high as compare to competition.

The company hired management consultant in an effort to solve these problems. The team of management consultant is asked implement a plan to streamline the product development process across the value chain in upcoming technological environment. In addition consultant has been assigned target to reduce 15% of new product development related communication delays and also reduce the technological change process cycle time. Furthermore consultant has to ensure robust process to protect and securities intellectual property.

Questions:

- i) What are the major problems faced by the by the automotive company in “Product design and development process”?
- ii) As a management consultant, advise possible solutions for above challenges faced by the automotive company.

Q.2: Read the Case Study and answer the questions below

Ajay was worried CEO of retail chain “Seven to Eleven Shoppe” when he was getting the complaint from 30% of total customers. Now a days, Supermarkets are highly customer service oriented business and very sensitive to complaints. The overall state of business has started giving Ajay sleepless nights.

After a thought, he decided to call all his department head’s. He discussed with facts and sorted out the set of causes that were main sources of problems. All areas across operations- men, material,

and methods were put under scanning. He wants to find out the solution for various causes which were undermined. After complete analysis, Ajay and his team found following major concerns and their causes for the service issues.

1. Irregular availability and repeated stock outs of fast moving items.
2. Poor supplier performance in terms of delivery of goods.
3. Increasing defective products are being returned by the users.
4. Employee morale- Due to continuous complaints and decreasing bonus, the morale of each worker and supervisor was very low.

Questions:

- i) What are the product and service quality challenges faced by the retail chain “Seven to Eleven Shoppe”?
- ii) As an operations consultant, suggest the changes in existing process to improve quality and reduce the complaints.

SECTION– B

7.5×02 = 15 Marks

Q. 3: IFFCO produces fertilizer to sell to whole-sellers. One raw material- calcium nitrate is purchased from a nearby supplier at price Rs 22.50 per ton for making fertilizer. IFFCO estimates annual demand of 5750000 tons of calcium nitrate next year. The annual carrying cost for this material is 40% of the purchase price and ordering cost is Rs. 595 per order. Calculate:

1. What is the most economical order quantity?
2. How many orders will be placed per year?
3. Calculate the time between the orders?

Q. 4: A firm is considering 3 locations for setup new factory. Each of these location provide some advantages and some limitations. As a business manager you have to assess the attractiveness of each site. Based on a survey of firm’s top management cross functional team have identified 6 factors that will determine the suitability of site for setting up the new factory. The factors and the score out of 100 for each of them are given below:

Sr. No.	Factors for consideration	Score(out of 100)
1	Nearness to port	80
2	Availability of labour	90
3	Existence of supplier infrastructure	70
4	Government policies and tax benefits	50
5	Quality of road infrastructure	70
6	Quality of social facilities (School and Hospital)	40

The firm also collected data for each site based on the above factors and arrive at how each site rates against score of 100 for each factor as per table below:

Sr. No.	Factors for consideration	Site 1	Site 2	Site 3
1	Nearness to port	90	70	80
2	Availability of labour	50	70	85
3	Existence of supplier infrastructure	60	80	85
4	Government policies and tax benefits	70	45	60
5	Quality of road infrastructure	80	90	70
6	Quality of social facilities (School and Hospital)	60	80	80

Rank each site based on the above data and identify most appropriate site for locating the new factory.

SECTION– C

02×05 = 10 Marks

- Q.5 (A): Which are the parameters for process design of services? Explain with example.
- Q. 5 (B): Briefly explain efficient supply chain management with example of ITC’s e- Chaupal?
- Q. 5 (C): Explain ABC classification of inventory in brief?
- Q. 5 (D): What are key parameters to define the process and list down the type of product process?
- Q. 5 (E): What are the Garvin’s eightdimensions of product quality?