

K J Somaiya Institute of Management Studies and Research

Program: MMS + PGDM Operations Fourth Trimester (Batch2018 - 2020)

Subject : Operations Planning & Control
(End Term Examination)

Maximum Marks: 50

Time : 3 Hours

24th September 2019

- 1) Write short notes on: (15)
- a) How does an Organization take decisions on Make vs Buy? Illustrate your reasoning taking an example of any FMCG company.
 - b) Factors to be taken into consideration while selecting a machine or process for the Organisation. Explain with example from any industry of your choice.
 - c) Standard Operations Planning Process and the elements involved in the process.
 - d) Concept of EOQ and the assumptions therein.
 - e) Concept of FMS and its advantages and disadvantages

- 2) Master Production Schedule is one of the detailed planning document for any Operations. Describe the process followed from beginning to finally arrive at MPS.

(10)

- 3) The table below shows the demand for a particular brand of microwave oven in a department store in each of the last twelve months.

Month	1	2	3	4	5	6	7	8	9	10	11	12
Demand	27	31	29	30	32	34	36	35	37	39	40	42

- i) Calculate a six month moving average for each month. What would be your forecast for demand in month 13?
- ii) Apply exponential smoothing with a smoothing constant of 0.7 to derive a forecast for the demand in month 13. (10)

4) The estimated costs of producing 6,000 units of a component are:

	Per Unit	Total
Direct Material	\$10	\$60,000
Direct Labor	8	48,000
Applied Variable Factory Overhead	9	54,000
Applied Fixed Factory Overhead	12	72,000
<i>\$1.5 per direct labor dollar</i>		
	\$39	\$234,000

The same component can be purchased from market at a price of \$29 per unit. If the component is purchased from market, 25% of the fixed factory overhead will be saved.

Should the component be purchased from the market? (10)

- 4) Briefly describe the differences Dependent Demand vs Independent Demand and what is meant by Decoupling Point. Explain how do manufacturing plants make use of this concept with suitable examples. (5)

-----End of Paper-----

