



UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF MANAGEMENT AND FINANCE

Postgraduate & Mid-career Development Unit

Master of Business Administration/Master of Business Administration in Finance/Master of Business Administration in Marketing/Master of Business Administration in HRM (Semester II

First-half) Repeat Examination – July 2107

MBA 538 – Operations Management

Three (03) Hours

- Answer **Five (05)** Questions
 - This paper has six (06) questions on three (03) printed Pages.
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01. i. "Operations strategy"—is a key element in corporate strategy. Elaborate this statement. (08 marks)
- ii. When a new plant is erected, a good deal of expertise is used by management to design a proper layout. A comprehensive approach with regard to the placement of machineries, location of stores, inspection cabins, tool rooms, maintenance wings, receiving and shipping departments, toilets and canteens, is necessary for achieving quick and smooth production at the least cost. In addition, layout plan needs to be compliance with legal and regulatory requirements." Do you agree with this statement? Justify your answer with appropriate examples. (12 marks)
- (Total 20 Marks)**
02. 1. "Product variety and volume are the key determinants in configuring manufacturing process." Explain how volume and variety affect in configuring different types of manufacturing process. (10 marks)
- ii. "Line-balancing strategy is to make production lines flexible enough to absorb external and internal irregularities". Discuss this statement with examples. (10 marks)
- (Total: 20 Marks)**

03. i. JIT, Kaizen, Benchmarking and Six Sigma are organizational practices developed in the recent past. Briefly explain two of them and discuss how they could contribute to organizational performance.

(08 marks)

ii. What are the different stages of operations that you have to control the quality? What are the Statistical Quality Control tools that you would use to control the quality in these stages?

(06 marks)

iii. "Quality of a product depends on both design and operations". Do you agree with the statement? Why or why not?

(06 marks)

(Total 20 Marks)

04. i. "Forecasting demand is a core function in the operations management and it will help to utilize the resources effectively and efficiently". Discuss this statement giving examples.

(08 marks)

ii. Explain the Delphi method of forecasting.

(03 marks)

iii. Historical demand of a product for the last 6 years is given below:

year	1	2	3	4	5	6
Demand	12	11	15	12	16	15

Find the forecast demand for the seventh year using,

(a) Weighted moving average with weights of 0.20, 0.30 and 0.50 for the periods 4, 5 and 6 respectively.

(b) Simple three month-moving average.

(c) Single exponential smoothing with $\alpha = 0.2$ and the years 6 forecast = 13.

(04 marks)

iv. A medium sized coffee shop requires 1,000 coffee makers per year. The cost of each coffee maker is Rs.78. Ordering cost is Rs. 100 per order. Carrying cost is 40% of per unit cost. Lead time is 5 days. Shop is open 365 days per year. What is the Economic Order Quality (EOQ) and Re Order Point?

(05 marks)

(Total: 20 Marks)

05. i. Explain why Supply Chain Management (SCM) has become an important part of organizations.

(10 marks)

ii. Discuss the merits and demerits of single-sourcing and multi-sourcing in purchase management.

(08 Marks)

(Total: 20 Marks)

06. Lean manufacturing is a systematic method for waste minimization ("Muda") within a manufacturing system without sacrificing productivity.

i. Discuss Taiichi Ohno's categorization of the seven major wastes typically found in mass production.

(10 marks)

ii. The "Reduce, Reuse, and Recycle" (3R) resource conservation and pollution prevention program is an important part of green production initiative. Evaluate this statement with appropriate examples.

(10 marks)

(Total: 20 Marks)
