

**THE OPEN UNIVERSITY OF SRI LANKA
 COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC
 ADMINISTRATION
 FINAL EXAMINATION –DECEMBER 2009
 MCP 1604 : OPERATIONS MANAGEMENT
 DURATION : THREE (03) HOURS**



Date : 19TH DECEMBER 2009	Time : 9.30 a.m – 12.30 p.m
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Answer ANY 5 questions.

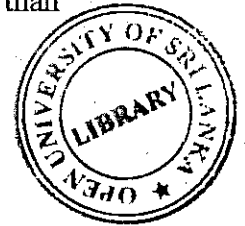
- 1- a) Describe the major differences between the products and services in Operations Management context and explain why delivering a service is more difficult than introducing a product to the market.
- b) Describe the factors that influence the competitiveness of an organization.
- c) Explain the different types of operations with suitable examples.
- d) Discuss briefly, the terms Productivity, Efficiency and Effectiveness, and Strategy.

- 2-a) Describe why Work Study is considered as an important tool in improving the operations of an organization
- b) Explain Method Study.
- c) State the steps carried out in a Method Study exercise and briefly comment on the importance of carrying out those steps.
- d) What are the primary questions asked during a Method Study investigation?

- 3- a) State how and why the process chart symbols may assist in recording of various operations in an office or a factory.
- b) Select an activity from your office and briefly explain it. Draw a flow process chart on the paper provided using the symbols for the said activity. (The activity should have at least 8 elements)
- c) Discuss briefly the Work Measurement and its importance for an operations manager.

- 4- a) Discuss the type of layout which would be most suitable for the operations of a (i) Supermarket (ii) Garment Factory (iii) Engineering Workshop and (iv) a Ship Building yard.
- b) Explain with an example what is a bottleneck and how 'line balancing' can improve the productivity of an operation.
- c) Describe the layout of your own office or department and give your comments on its key features and benefits/drawbacks.

- 5- a) Discuss the basic types of qualitative and quantitative forecasting methods and comment on their reliability and ease of use
- b) "Forecasts are rarely perfect". Comment with examples.
- c) Lanka Furniture Mart, a leading furniture manufacturer in Sri Lanka has the following sales of a new model divan, over the last 9 months.



Week	Units sold
1	44
2	52
3	50
4	54
5	55
6	55
7	60
8	56
9	62

Plot a graph and draw the trend line and predict the sales for the next 2 months.

- 6- a) Define Total Quality management (TQM) and explain why TQM is more beneficial to an organization than Quality Control or Quality assurance.
 b) Write short notes on the five basic quality tools.
 c) Define the ISO 9000 System and explain how the ISO 9000. 2000 differs from the earlier version and why is it considered as a more appropriate system.
- 7- a) Explain the 3 main types of production systems highlighting their differences using suitable examples.
 b) Explain the 3 main types of organizational plans and describe the activities involved in these types.
 c) Define Materials Resource Planning and its key elements.
- 8- a) Discuss the sustainable development and how an organization can benefit from cleaner production initiatives.
 b) Explain four advanced manufacturing systems and discuss how those methods increase the competitiveness of an organization.

Formula for question No 5

For linear graph

$y = mx + c$, with the standard notation

$$m = \frac{n(\sum xy) - (\sum x)(\sum y)}{n(\sum x^2) - (\sum x)^2}$$

$$c = \frac{\sum y - m \sum x}{n}$$

Flow process chart for Question no 3-b

Element or action carried out	Op	Tra	Ins	Del	Sto
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼
	O	⇨	□	D	▼

Op – Operation-O

Tra – Transport-⇨

Ins- Inspection- □

Del – Delay- D

Sto – Storage-▼