



**THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC
ADMINISTRATION DEGREE PROGRAMME
FINAL EXAMINATION – 2007/2008
MCP – 1604 - OPERATIONS MANAGEMENT
DURATION : THREE (3) HOURS**

DATE : 2007.12.15

TIME: 1.30pm – 4.30pm

IMPORTANT INSTRUCTIONS:

- ANSWER ANY FIVE (05) QUESTIONS.
- ALL QUESTIONS CARRY EQUAL MARKS.

- 1 a) What is meant by 'competitiveness'? Discuss ways and means of measuring the competitiveness of a manufacturing and a service organization.
- b) Describe the factors which influence the competitiveness of an organization.
- c) Explain with suitable examples the different types of operations takes place in organizations.
- d) Explain the following concepts with suitable examples related to Operations Management: (i) Productivity, (ii) Efficiency and Effectiveness, and (iii) Strategy.

- 2 a) Discuss why Work Study is considered as an important tool in improving the operations in manufacturing and service organizations.
- b) Explain 'Method Study' and its applications in organizations.
- c) Describe the steps carried out in a Method Study exercise.
- d) What are the primary questions asked during a Method Study investigation?

- 3 a) What are the applications of process chart and the importance of this technique to organizations?
- b) Identify the activities and complete the process path in the Chart given in page 3.
- c) Discuss Work Measurement exercise at manufacturing organizations and its importance.

- 4 a) Explain the importance of proper layout plans for organizations. What factors have to be considered when selecting a suitable plant layout?
- b) Discuss the different types of facility layouts that would be most suitable for the operations in a, (i) Supermarket, (ii) Garment Factory, (iii) Engineering Workshop and (iv) Ship Building industry.
- c) What is meant by 'line balancing' and discuss how it may affect productivity of an operation?

- 5 a) Explain the elements of a good forecast. What is the need for a good forecast for an operations manager?
- b) "Forecasts are rarely perfect." Comment on this statement.



- c) Explain two qualitative and two quantitative forecasting techniques with their specific applications.
- d) Lanka Cell, a mobile phone provider in Sri Lanka, has the following phone sales during the last 10 weeks.

Week	Units sold
1	700
2	724
3	720
4	728
5	740
6	742
7	758
8	750
9	770
10	775

Plot a graph and the trend line and predict the sales for weeks 11 and 12.

- 6 a) Compare and contrast 'quality control' and 'quality assurance'.
- b) Define Total Quality Management (TQM) and explain the key advantages of TQM over quality control or quality assurance.
- c) Briefly explain the five basic quality tools.
- d) What is the ISO 9000 system? Explain how ISO 9000:2000 differs from the earlier version. In your opinion what is the most appropriate system? Provide reasons.
- 7 a) Explain the three main types of production systems highlighting their differences with suitable examples.
- b) Explain the three main types of organizational plans. What are the key activities involved in these plans?
- c) Define 'Materials Resource Planning' and its key elements.
- d) Describe the supply chain model and how it is important for an operations manager.
- 8 a) Discuss the operations management techniques that would be most useful to Sri Lankan manufacturers and service providers intending to reach global standards.
- b) Explain the recent trends in operations management and their application by Sri Lankan industrialists.

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$$y = mx + c$$

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

Flow process chart for Question no 3-b

The chart indicates the process of drawing petty cash for a department from the treasury

Please draw the path by indicating the appropriate process symbols

Element or action carried out	Op	Tra	Ins	Del	Sto
Requisition made out by Department Head	○	⇨	□	D	▼
Put in to "pick up" basket	○	⇨	□	D	▼
To Accounts Department	○	⇨	□	D	▼
Account & signatures verified	○	⇨	□	D	▼
Amount approved by Accountant	○	⇨	□	D	▼
Amount counted by cashier	○	⇨	□	D	▼
Amount recorded by book keeper	○	⇨	□	D	▼
Petty cash sealed in envelope	○	⇨	□	D	▼
Petty cash carried to Department	○	⇨	□	D	▼
Petty cash checked against requisition	○	⇨	□	D	▼
Receipt is signed	○	⇨	□	D	▼
Petty cash stored in the safety box	○	⇨	□	D	▼

Op – Operation-○

Tra – Transport-⇨

Ins- Inspection- □

Del – Delay- D

Sto – Storage-▼

