

**THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC
ADMINISTRATION
FINAL EXAMINATION - AUGUST 2013
MCP 1604 – OPERATIONS MANAGEMENT
DURATION: THREE (03) HOURS**



Date: 10.08.2013

Time: 9.30 am – 12.30 pm

Instructions:

- Answer any FIVE (05) questions.
- Illegible hand writing may cause loss of marks.
- Use of a non programmable calculator is allowed.
- All questions carry equal marks. (20 marks each)

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- 1- a) Discuss how the management of the operations in service and manufacturing sector is linked to the economy of a country.
- b) Giving suitable examples describe different types of operations emphasizing on the areas where value addition occurs.
- c) Discuss briefly the new trends in operations management.
- 2-a) Describe how 'Work Study' makes an organization more objective oriented. How does it help the organization to improve its operations and service levels? Explain.
- b) You have been instructed by your top management to study the operations in an underperforming division and provide them with suitable recommendations to improve the situation. Explain how you would plan to set about it?
- c) Complete the flow process chart provided with this question paper by selecting the correct symbol against each element of work. (Use the chart provided in Page 3 of this paper)
- 3- a) Describe the concept of productivity in operations management perspective, and explain the single factor and multifactor productivity.
- b) Perera's Tile Company has a staff of 4, working 8 hours a day (Payroll cost Rs.6400/day) and its overhead expenses are Rs.4000 per day. They process 8 lots of tiles a day. The company recently purchased a mechanized system that will process 14 lots of tiles per day. The staff, work hours and the pay remains the same but the overhead expenses will be increased to Rs. 8000 per day.
- Using multi factor productivity measures identify the better system.

- 4- a) Discuss three major types of facility layouts with suitable examples.
b) Describe 'line balancing' and discuss how it affects productivity of a manufacturing process.
c) Draw a sketch floor plan of your office or department indicating the flow of work. Comment on the drawbacks of the present system and suggest a new layout with improvements.
- 5- a) Explain why forecasting is necessary for an organization.
b) Differentiate between qualitative and quantitative forecasting methods. Explain the advantages and disadvantages of employing such methods.
c) Write short notes on two qualitative and two quantitative methods of forecasting. Mention practical situations in which such methods can be employed.
- 6- a) Explain the four major categories of costs associated with quality.
b) Describe the basic quality tools used in operations environment.
c) Explain the key elements of Total Quality Management.
Why setting up a TQM system is a costly affair and considered as a difficult activity for an organization? Explain.
- 7- a) Discuss the importance of managing human resources in manufacturing and service sectors
b) Describe the typical supply chain for a manufacturer. How does the knowledge on supply chain benefit him in improving the overall performance of the organization? Explain.
c) Why is it necessary for an organization to use Materials Requirement Planning? What are the key inputs for a MRP system? Explain.
- 8- Explain the importance and practical applicability of the following
a) Cleaner production
b) Sustainable development
c) Use of alternate energy

Flow process chart for Question no 2-d

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

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	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put in to "pick up" basket	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To Accounts Department	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Account & signatures verified	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount approved by Accountant	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount counted by cashier	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount recorded by book keeper	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petty cash sealed in envelope	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petty cash carried to Department	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petty cash checked against requisition	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receipt is signed	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petty cash stored in the safety box	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Op – Operation -

Tra – Transport -

Ins- Inspection -

Del – Delay -

Sto – Storage -