

THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC
ADMINISTRATION PROGRAMME
OSP9304/OSP9304/MCP1604: OPERATIONS MANAGEMENT
FINAL EXAMINATION - 2023
DURATION – THREE (03) HOURS



Date: 06 August 2023

Time: 1.30 pm to 4.30 pm

Note to the students:

- Answer only FIVE questions.
 - Answers should be focused and methodical.
 - This question paper carries 7 Questions.
1. a) Explain the common differences between goods and services with appropriate examples from the two sectors. Explain how the said differences make changes to key operations management decisions applicable to organizations involve in manufacturing goods and producing services. (10 marks)
 b) What type of inventories are needed at service sector organizations? Explain the need for inventories for service sector organizations. Elaborate your answer selecting a suitable service-oriented organization or service division of an organization. (10 marks)
 2. a) Explain the importance of outcomes of a forecast for an operations manager. Highlighting the advantages and disadvantages, describe one qualitative and one quantitative forecasting technique that can be used to forecast the consumer demand for output of an organization. (12 marks)
 b) Describe independent demand and derived demand for products. Explain two the demand management techniques applicable for products and two techniques for services. (08 marks)
 3. a) With justifications, identify the most suitable production system for a
 - (i) water purification plant for a medium scale township
 - (ii) natural fruit drink manufacturing and bottling plant producing 8 different types of drinks,
 - (iii) pawning centre of a commercial bank at a suburban area
 - (iv) printing facility producing books, calendrs, diaries and greeting cards.
 Your answer should consider the quantity, unit cost of production, ability to make customized outputs and ability to maintain quality standards with the stated production system. (12 marks)

- b) Describe, with justifications, the most suitable types of plant layouts design for the facilities specified in 3. (a) above. (08 marks)
4. a) Explain the different types of costs associated with quality. (6 marks)
b) Describe at least 4 quality tools. (6 marks)
c) Explain the key principles of TQM and their importance to a manufacturing sector organization. (8 marks)
5. a) Explain the following production planning methods that takes place at manufacturing facilities.
(i) Aggregate planning
(ii) Material requirement planning (08 marks)
b) With suitable illustrations, explain the 'chase strategy', 'level strategy' and 'mixed strategy' approaches used in aggregate production planning. (12 marks)
6. a) "Selecting a location for a manufacturing plant is a long-term strategic decision which has a significant impact on operating costs of the outputs."
Explain, the above statement using suitable examples from Sri Lankan business environment. (08 marks)
- b) Describe how the determinants of location decision of a manufacturing plant including skills availability, trade union activism, political climate of the country, quality and capacity of transportation and level of maintenance of law and order pertaining to the geographical region, country, province/ district and site, should be considered when making a location decision for a large-scale ICT component (such as computer memory, hard disks or displays) manufacturer. (12 marks)
7. Explain any TWO (2) of the following with suitable examples and illustrations where necessary. (@ 10 marks each x 2)
- a) Order winners and order qualifiers for a firm in hotel/ restaurant industry.
b) Adapting lean manufacturing techniques and its benefits to an organization.
c) Work study and how this exercise help the management in improving the job design task.

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