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THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIEVE MASTER OF BUSINESS/PUBLIC ADMINISTRATION PROGRAMME
OSP9304 – OPRATIONS MANAGEMENT
FINAL EXAMINATION – 2023/2024
DURATION – THREE (03) HOURS

Date: 25 August 2024	**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 how the key differences between goods and services affect operations management decisions such as forecasting, production planning, capacity planning, layout planning, inventory management, procurement, and quality management applicable to organizations involved in manufacturing goods and producing services. (*12 marks*)

   b) As an operations manager, explain the measures that have to be taken by the management of an organization having a service division of an organization to improve customer satisfaction. (*08 marks*)

2. a) With suitable illustrations, explain the trends, seasonal effects, business cycles and random effects of demand that have an impact on forecasting long-term, medium-term and short-term demand. (*12 marks*)

   b) What is the importance of forecasting for an operations manager? What is meant by independent demand and dependent demand for products? Give suitable examples. (*08 marks*)

3. a) With justifications, recommend the most suitable production system for a
   (i) Polyester yarn manufacturing plant which manufactures homogenous yarn
   (ii) Newspaper printing facility
   (iii) Bridal beauty saloon
   (iv) vehicle repair and paint shop
   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, using suitable illustrations, different types of plant layouts that are commonly used by manufacturing organizations. With justifications, describe the most suitable plant layout type for a vehicle repair and paint shop specified in 3. (a) above. *(08 marks)*

4. a) Explain the concept of quality management and its importance for an operations manager. *(06 marks)*

b) Describe four quality tools. *(06 marks)*

(c) Explain the ISO quality management system and major tasks that have to be carried out by an operations manager to obtain ISO standards for his manufacturing division. *(08 marks)*

5. a) With suitable illustrations, explain the 'chase strategy', 'level strategy', and 'mixed strategy' approaches used in aggregate production planning. *(12 marks)*

b) 'Kidswear Ltd. is a medium scale garment factory with 40 operators working on different types of machines needed for making garments for small kids aged 2 to 6 years. They have experienced the demand for their product is seasonal mainly with festival seasons in Sri Lanka as April and December.' Relating to Kidswear Ltd., explain the following manufacturing decisions.

(i) Make or buy

(ii) Outsource excess capacity *(08 marks)*

6. "Product design is the combination of manufacturing capabilities with product and business insights, transforming innovative ideas into tangible, market-ready products which has a significant impact on operating efficiency."

a) Explain, using suitable relevant examples, the stages involved in product design. *(08 marks)*

b) Explain the concept of concurrent design and how it enhances the product design process compared to the traditional approach. *(06 marks)*

c) What measures should an operations manager take when integrating environmental concerns into the product design process? Explain. *(06 marks)*

7. Explain **any TWO** (2) of the following with suitable examples and illustrations when necessary. (10 marks each)

a) Observing occupational health and safety measures at work.

b) Green manufacturing and its benefits to an organization.

c) Work study and job design.

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