

**The Open University of Sri Lanka**  
**Master of Business Administration in Human Resource Management**  
**Final Examination - 2016**  
**Operations Management MCP2133**  
**Duration – 3 Hours**



**Date: 17<sup>th</sup> December, 2016**

**Time: 9.30 am to 12.30 pm**

**Instructions:**

**Answer any five (05) questions. All answers carry equal marks.**

**In answering, state the number assigned to the question clearly in the left side border in the answer script.**

**Always start new questions in a new page.**

**Illegible handwriting may cause loss of marks.**

**Use of a non-programmable calculator is allowed.**

**This paper contains 8 questions and has two pages.**

- (1) (i) With suitable examples and illustrations explain the basic Operations Management model and its key components. (10 Marks)
- (ii) Identify three main functional areas of a business organization and explain the interrelationships among these functions. (10 Marks)
- (2) (i) Explain the concepts 'Order Qualifiers' and 'Order Winners' by selecting a suitable organization. (10 Marks)
- (ii) Ceylon Holding Limited (CHL), a large conglomerate in Sri Lanka, is planning to start the construction of a private university and a cement packaging plant in 2017. Identify the factors that CHL should consider in locating the private university and the cement packaging plant. (10 Marks)
- (3) (i) Explain the differences among various processes, i.e. project, batch, mass and continuous, used in manufacturing organizations. (12 Marks)
- (ii) Describe three of the qualitative or quantitative forecasting techniques that can be used by an operations manager of a business organization. (8 Marks)
- (4) "Work study can be used to improve the efficiency at work stations without incurring heavy cost."
  - (i) Describe 'work study' and its components. (10 Marks)
  - (ii) Explain the relationship between method study and work measurement. (10 Marks)

- (5) (i) Briefly explain the primary reason for holding inventories by organizations. Describe the costs associated with inventories. (8 Marks)
- (ii) A drinking yoghurt manufacturer buys food grade preprinted plastic containers for packing. The annual requirement of containers is 25,000 units and each container costs Rs. 5/=. The ordering costs are Rs. 2,000/= per order and holding stocks costs are 20% of the purchase price.
- a) How many boxes should the yoghurt manufacturer order at a time so as to minimize the total cost of inventory?
- b) If it takes one month to receive the containers after placing the order, what should be the reorder level for containers?
- c) The supplier of containers offers a quantity discount so that the price per container comes down to Rs. 4/= if the order quantity is 12,000 or more. What should be the order quantity of containers and the annual saving under this condition? (12 Marks)
- (6) (i) Describe the following in relation to operations management.
- a) Aggregate planning
- b) Material requirement planning
- c) Enterprise resources planning (12 Marks)
- (ii) Explain the concept of 'lean manufacturing' and benefits of using lean manufacturing for an organization. (8 Marks)
- (7) (i) Explain the long term impact of quality on price, demand and profitability of a business organization. (10 Marks)
- (ii) How do you distinguish an organization that adopts Total Quality Management (TQM) from a traditional organization? (10 marks)
- (8) (i) Organizations, especially service firms, use the demand management strategy to manage the capacity.
- a) Explain why it is difficult to manage capacity in service organizations when compared to manufacturing organizations.
- b) Explain, with suitable examples, how an organization can influence the demand to manage the capacity. (12 Marks)
- (ii) List and explain the four major categories for quality costs with suitable examples. (8 Marks)

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