THE OPEN UNIVERSITY OF SRI LANKA
BACHELOR OF MANAGEMENT STUDIES DEGREE PROGRAMME
LEVEL 04
FINAL EXAMINATION-2009
OPERATIONS MANAGEMENT -MCU 2205

DURATION: THREE (03) HOURS

| DATE: 21-02-2009 | TIME: 9.30 am to 12.30 noon |
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INSTRUCTIONS
- **Answer any five (05) questions from the following.**
- **All questions carry equal marks.**
- **Uses of non programmable calculators are allowed to use.**

Q1) "Operations management is considered to be important for all sectors of business".
  a) Briefly describe the role of operations management in the service sector organizations. Use examples from service sector organizations to support your answer.                                                                (10 Marks)
  b) Differentiate open and closed systems of operations those can be seen in organization with examples for each type.                              (10 Marks)

Q2) "The field of Operations Management has gone through many changes during the past".
  a) Discuss the historical development of operations management.      (10 Marks)
  b) Japanese's management practices have made many contributions towards the development of operations management field. Discuss three concepts and/or principles introduced or practiced by Japanese organizations those have contributed towards the development of Operations Management.     (10 Marks)

Q3)
  a) Describe different types of manufacturing systems that are used in manufacturing. Use appropriate examples in your answer.                              (10 Marks)
  b) Assume that you are an operations manager in a garment factory and you have been asked by the top management to design the operation strategy for your factory. Explain how you would formulate the operations strategy for your factory.                                                                (10 Marks)

Q4) "Manufacturers major concern is on maximizing productivity".
  a) Discuss the different measures that small and medium scale manufacturers in Sri Lanka adopt to maximize their productivity. Use an example from any industry in Sri Lanka.                                                       (08 Marks)
  b) The following information relates to the production of Milna apple juice manufactured by Milna Pvt Ltd in a given week of the month of January 2009.

    ➢ No. of bottles produced by Milna apple juice - 1200 bottles of Rs.65/= each.
    ➢ No of apples used - 400 apples of Rs 20/= each.

➢ Total labor hours used - 5 labors worked for 8 hours per day in the given week. Total working days in a week is 6 and the hourly wage rate for an employee is Rs.50/=

➢ Electricity and other energy cost absorbed for the production of Milna apple juice is Rs.15000/= per week.

Your are required to compute the following

   I. Partial productivity measures

   II. Multi factor productivity measures

   III. Total factor productivity

(12 Marks)

Q5)

  a) Explain the significance of plant layout decisions to an organization from an operations manager's point of view.

(08 Marks)

  b) Explain the use of following quality control tools and techniques used by manufacturing organizations.

     ➢ Control charts

     ➢ Acceptance sampling

     ➢ ISO 9000 series

     ➢ Inspection of incoming materials

(12 Marks)

Q6) "A proper inventory control system serve for several purposes".

a) Explain the different types of inventory management systems used by organizations.

(8 Marks)

b) Following information relates to Hero T-shirts imported and distributed by Mehela Textiles in Sri Lanka.

Estimated annual demand for Hero T-Shirts in Sri Lanka is 3000. Market price of one such T-shirt is. Rs.500 and cost of making one order to bring one consignment of Hero T-shirts is Rs.2400/=. For handling and maintenance, it costs 8 % of its total market price.

You are required to

   I. Find the number of units to be ordered at a time so that the total inventory cost is at minimum level.

   II. Find the number of orders to be made per year when a quantity in (1) above is made.

   III. Find out the lead time if the total number of working days per year is 300.

(12Marks)

7) Write short notes to any five (5) topics from the following

    a) Influence of new technologies in operations management

    b) Quality costs

    c) Types of operations strategy

    d) Five S practices

    e) Maintenance and replacement design at manufacturing

    f) Fixed product layout

(5 X 4 Marks = 20 Marks)