

## The Open University of Sri Lanka Master of Business Administration in Human Resource Management 2009-2011 Final Examination 2011 – Semester II MCP 2133 – Operations Management Duration – 03 Hours

Date: 5<sup>th</sup> February, 2011

Time: from 1.30 pm to 4.30 pm

This paper contains 8 questions and has two pages.

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.

Always start new questions in a new page. Illegible handwriting will cause loss of marks. Use of a non-programmable calculator is allowed.

- (1) (i) Explain the basic operations management model and its key components using suitable illustrations. (10 Marks)
  - (ii) Outline the salient features of services and explain how the key operations of human resources management could fit into the above model. (10 Marks)
- (2) (i) "World class manufacturing no longer view performance objectives of operations such as cost, quality, speed of delivery and flexibility as trade-offs, since they have become order qualifiers today."
   Discuss. (12 Marks)
  - (ii) Explain how the performance objectives of operations mentioned above can be used to improve the competitiveness of a service organization. (8 Marks)
- (3) (i) Explain what is meant by plant layout and how plant decision can be a major decision affecting the cost of production of an organization. (8 Marks)
  - (ii) Briefly explain 'process', 'product' and 'cellular' layouts with suitable illustrations and explain when these layouts could be most appropriate for manufacturing concerns. (12 Marks)
- (4) "Method study and motion study can be used to improve the efficiency at many work stations."
  - (i) Explain 'method study' and 'motion study' and the activities involved in these exercises. (10 Marks)
  - (ii) From the perspective of a Human Recourse Manager how could the method study improve the overall performance of the activities undertaken by the Human Resource department? Give suitable examples from the activities of a Human Resource Department to explain this situation. (10 Marks)

- (5) (i) Explain the different types of inventories available in organizations. Explain why do organizations maintain inventories within organizations? (8 Marks)
  - (ii) A confectioner buys plastic containers in bulk and uses them to pack his chocolates. His annual requirement of containers is 1,200 and each container costs Rs.30.The ordering costs are Rs.10.00 per order and holding stocks costs him 20% of the purchase price.
    - a) How many boxes should the confectioner order at a time so as to minimize the total cost of inventory for this container?
    - b) If the supplier of boxes offers a quantity discount when the order quantity is 100 or more containers the price per box will be Rs 29.50; then what should be his order quantity?

(12 Marks)

(6) Explain the concept of aggregate planning. Briefly state steps involved in preparing aggregate plans for an organization. Explain the differences between aggregate planning for activities in human resources department and a factory area.

(20 Marks)

- (7) Total Quality Management (TQM) is a broader concept than quality management.
  - (i) How do you define TQM? What are the basic principles of TQM? (11 Marks)
  - (ii) Explain three of the following techniques that can be used by an organization to improve the quality.
    - a) Fishbone diagram
    - b) Statistical process control (SPC)
    - c) Pareto diagram
    - d) Scatter diagram

(9 marks)

- (8) (i) Explain different types of costs associated with quality using suitable examples. (12 Marks)
  - (ii) Traditionally, it was believed that quality and cost move in different directions. However, now it is argued that quality can be improved while keeping the costs at a lower level. Use costs of quality to explain the basis for this argument.

(8 Marks)

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