



The Open University of Sri Lanka
Master of Business Administration in Human Resources Management
Final Examination 2019
MCP2133/MSP9333 – OPERATIONS MANAGEMENT
Duration 3 Hours

DATE: 23rd March, 2019

TIME: 9.30 am to 12.30 pm

Instructions:

Answer **any FIVE (5) questions.**

Illegible hand writing is liable to lose marks.

This question paper has three pages and eight questions.

Use of a non-programmable calculator is allowed.

Question 1

- (a) Describe the basic transformation model of operations management and explain its components by selecting a suitable product or service. (10 Marks)
- (b) “Competitive priorities are the critical dimensions that a process or supply chain must possess to satisfy its internal or external customer, both now and in the future”. Explain this statement bringing out the meaning of ‘competitive priorities’. Describe four such competitive priorities that can provide competitive position for an organization. (10 Marks)

Question 2.

- (a) Describe the stages of new product development process. (08 Marks)
- (b) ‘House of Quality’ is a popular tool used to analyse the customer requirements and engineering characteristics of a product or a service’. Explain the components and use of ‘House of Quality’. (07 Marks)
- (c) Explain how value engineering can be used in product or service development. (05 Marks)

Question 3.

- (a) With examples, describe different process flows; project, job-shop, batch, assembly line and continuous, that can be seen in organizations. Explain the different process flows used by an organization depending on variety, volume of output, unit cost of production, and the stage of product life cycle of the of the product. (14 Marks)
- (b) Explain quantitative and qualitative forecasting techniques that are used for forecasting. Give suitable examples. (06 Marks)

Question 4.

- (a) What is work study? What are the benefits of using work study by an organization? (08 marks)
- (b) Describe the primary questions raised at a method study exercise and the objectives of raising such questions. (08 marks)
- (c) What is ergonomics? Explain the benefits of ergonomics to employees and to the organization. (04 marks)

Question 5.

- (a) Explain the following planning methods take place at manufacturing facilities.
- a. Aggregate planning
 - b. Material requirement planning (10 Marks)
- (b) Describe 'chase strategy', 'level strategy' and 'mixed strategy' used in aggregate planning. (10 Marks)

Question 6.

- (a) Describe the need for holding inventories in an organization. (04 Marks)
- (b) Describe four different types of costs associated with inventories of an organization. (04 marks)
- (c) A water bottler requires 60,000 units of 1 liter PET bottles an year. The cost of ordering this type of bottles is Rs. 1,200/- which includes mandatory quality testing as well. Annual holding cost of a bottle is 15% of the purchase price. At present a 1 liter bottle costs Rs. 9.60 to the company, when they buy more than 100 bottles at a time. (i.e. minimum order quantity). You are required to calculate the following;

- a. Economic order quantity of the bottles
- b. Reorder level and number of orders to be made per year.
- c. Total cost related to inventory of water bottles for the company.
- d. If there is a quantity discount of Rs. 1.10 per bottle when more than 12,000 bottles are purchased at a time, will there be a change in the previous decision on order quantity?
Show workings. (12 Marks)

Question 7.

- (a) Explain the concept of 'Total Quality Management' applicable to an organization. Describe the benefits of adopting TQM practices for an organization. (08 Marks)
- (b) Describe the elements of TQM. (08 Marks)
- (c) As a Human Resource Consultant, what steps would you take to get the employees involve in transforming your organization towards a TQM driven organization? Explain. (04 marks)

Question 8.

Explain any TWO (2) of the following with suitable examples. (10 marks each)

- (a) Order winners and order qualifiers
- (b) Lean manufacturing and its benefits to an organization
- (c) Different costs associated with quality with reference to a fast food outlet
- (d) Factors to be considered in location decision of setting up an export-oriented plantation for Roses.

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