

THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC
ADMINISTRATION PROGRAMME
OSPA354: QUALITY MANAGEMENT
FINAL EXAMINATION – 2023/2024



DURATION – THREE (03) HOURS

Date: 1st September, 2024

Time: 9.30 am to 12.30 pm

Note to the students:

- Answer only FIVE questions, including Question number 1.
- Answers should be focused and methodical.
- This question paper carries 7 Questions.

Q1

Elchips (Pvt) Ltd is an electronic component manufacturing company in Sri Lanka. It is a medium-scale manufacturing company catering to a larger(main) company as the Elchips electronic components are input to the products manufactured by the larger(main) company. Hence, the main company products performance is dependent on the Elchips components. Because of this reason, the main company is very much interested in the quality of the electronic components manufactured by Elchips and, always provides specifications and all required information to Elchips to facilitate the manufacturing process to meet the main company's expectations.

However, over the last six months, the main company observed that the performance of their products was dropping and, therefore the CEO of the main company requested a detailed report from a team of experts appointed within one week about this matter. The team has done a detailed assessment of every process of the main company and found that even though minor issues are there within their company processes the biggest problem was with the low-quality electronic components of Elchips. So, they reported the issue to the CEO at the management meeting.

CEO asked the Quality Assurance Manager (QAM) what actions they do have at present over the control of electrical components purchased from Elchips. QAM explained in detail the current practices of inspection and checking of once-in-five consignments and if there is any issue with an inspected and checked consignment next ten consignments are checked individually. Since the CEO does not have any technical understanding, he appointed a team of experts including QAM to find a suitable solution to this problem and to report. The team comprises three officers of the main company.

Based on this scenario attempt the following questions:

- a) If you are one of the members of the said team, explain what approach you would propose to the team to consider. (8 marks)
- b) In your approach do you propose to evaluate the existing system practiced by the company and consider the outcome of the assessment when proposing the solution? Explain. (6 marks)
- c) Do you consider the concept of TQM can be used as part of the solution? If yes, how? If No, what alternative solution do you propose? (6marks)

Q2:

- a) Do you consider the calculation of scraps in a manufacturing plant to be important? Give reasons. (6 marks)
- b) Discuss the importance of identifying costs incurred for inspection activities in a manufacturing company. (7 marks)
- c) Discuss in detail the relationship between 'Prevention cost' and 'External Failure Cost'. (7marks)

Q3

- a) Explain the importance of "Top Management Commitment to Quality" within any organization and the implementation of quality management practices. (6marks)
- b) "Quality means Customer Satisfaction". Explain using an example the actual meaning of this phrase. (Hint: *consider a product manufactured by any organization and discuss*) (8 marks)
- c) Compare and Contrast "Deming's Approach" and "Juran approach" to Quality Improvement. (6 marks)

Q4:

- a) Explain the application of the Check Sheet tool using a suitable example. (5 marks)
- b) A bakery products manufacturing company found that during the three months, the complaints about the quality of products were on an upward trend. The company wants to investigate this thoroughly to find a suitable answer. Explain the three most appropriate Basic tools that can be used for this task. (5 marks)
- c) Explain the meaning of Five S practices and their application in improving quality. (10 marks)

Q5:

- a) Explain the concept of 'Six Sigma' used in quality management practices. (6 marks)
- b) 'The use of "Six Sigma" plays a vital role in the process improvement of any organization.' Do you agree with this statement? Give reasons. (7 marks)
- c) A construction company engaged in design and building is interested in improving its internal processes and wants to apply the Six Sigma concept. Explain the steps that they need to use describing each step. (7 marks)

Q6:

- a) Explain the meaning of ISO 9001 Quality Management System. (5 marks)
- b) ISO 9001 Quality Management System implemented properly within a manufacturing plant the product quality of that plant will meet the expected standard of the plant. Do you agree with this statement? Explain your answer with suitable examples. (7 marks)
- c) Indicate four benefits that a company can receive by achieving ISO 9001 certification. (8 marks)

Q7:

- a) The Quality Manager of a large retail shop has requested you to train one middle-level officer from each retail unit in basic quality. The Human Resource Manager turned down the request as it was a waste of money, and no gain will be received to the company. How do you convince the importance of this training and its value to the company? (10 marks)
- b) The CEO of a large rubber products manufacturing company is interested in implementing a comprehensive results-oriented TQM System within the company. The CEO hired a consultant for this project. Develop a monitoring plan to measure the progress of the Consultant for this project to ensure that the project will be successful. (10 marks)

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