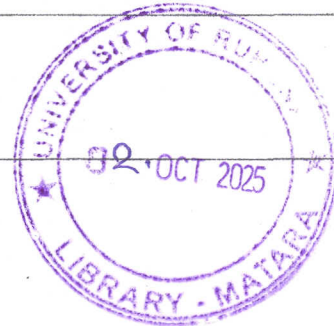
	UNIVERSITY OF RUHUNA FACULTY OF MANAGEMENT AND FINANCE	No. of Pages :02 No. of Questions:05 Total Marks :70
		BACHELOR OF BUSINESS ADMINISTRATION HONOURS DEGREE 4000 LEVEL FIRST SEMESTER END EXAMINATION - AUG/SEP 2025
MGT 41603 - Productivity and Quality Management		Academic Year 2024/2025 Three Hours
Instructions: <ul style="list-style-type: none"> • The question paper contains five (5) questions. • Answer all questions. 		



1.

- a) Differentiate Total Productivity, Total Factor Productivity, and Partial Productivity. (6 marks)
 - b) In the context of Statistical Process Control (SPC), differentiate between 'Common Causes' and 'Special Causes' of variation. (4 Marks)
 - c) Explain how the Upper Control Limit (UCL) and Lower Control Limit (LCL) on a control chart help an organization to distinguish between these two types of variation. (4 Marks)
- (Total Marks: 14)

2.

- a) Briefly explain three (03) key characteristics or components that define a robust 'Total Quality Approach' within an organization. (6 Marks)
 - b) Explain how the Plan-Do-Check-Act (PDCA) cycle can be systematically applied by a Sri Lankan customer service center to effectively address and resolve recurring customer complaints regarding long call waiting times. (8 Marks)
- (Total Marks: 14)

3.

a) Explain how the DMAIC roadmap of Six Sigma provides a structured approach for a Sri Lankan manufacturing company to achieve significant process improvements and defect reduction. (6 Marks)

b) Read the scenario below and answer the given questions.

Scenario: Operational Challenges and Lean Manufacturing Adoption at Ceylon Tea Co.

Ceylon Tea Co., a prominent Sri Lankan tea exporter, is experiencing a significant decline in productivity. This decline is primarily attributed to the following critical operational inefficiencies within its tea processing and packaging operations:

- i. Elevated Production Costs: The company incurs high expenses related to energy consumption and labor, particularly within its tea processing activities.
- ii. Inconsistent Product Quality: Manual sorting processes frequently lead to errors, resulting in variations in tea quality and customer dissatisfaction.

To mitigate these challenges and restore productivity, Ceylon Tea Co. is strategically planning to implement Lean Manufacturing principles as a core component of its Total Quality Management (TQM) framework.

You are required to:

- a) Provide a comprehensive definition of Lean Manufacturing, outlining its core objectives.
- b) Explain how the adoption of Lean Manufacturing principles can significantly assist Ceylon Tea Co. in addressing its productivity decline by directly targeting the identified operational issues. (8 Marks)

(Total Marks: 14)

4.

A Sri Lankan textile manufacturer is seeking to enhance product development and ensure customer satisfaction by systematically translating customer requirements into technical specifications.

You are required to explain in detail how the House of Quality (HoQ) matrix, as a key component of Quality Function Deployment (QFD), can be effectively utilized by this manufacturer to achieve these objectives. (14 Marks)

5.

a) Discuss three (03) main challenges of the implementation of the 5S methodology in Sri Lanka and suggest practical solutions to overcome these challenges. (6 marks)

b) Discuss four (04) main challenges of implementing Just-In-Time (JIT) manufacturing in Sri Lanka. (8 marks)

(Total Marks: 14)

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