



# MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

FACULTY OF APPLIED SCIENCES & TECHNOLOGY

DEPARTMENT OF APPLIED STATISTICS

MODULE: QUALITY MANAGEMENT SYSTEMS

CODE: HAST224

SESSIONAL EXAMINATIONS  
OCTOBER 2021

DURATION: 3 HOURS

EXAMINER: MR I. ZVAVANDA

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## *INSTRUCTIONS*

1. Answer **All** in Section A
2. Answer **three** questions in Section B.
3. Start a new question on a fresh page
4. Total marks 100

**Additional material(s):** Non-programmable electronic scientific calculator.

**SECTION A: (ANSWER ALL QUESTIONS) [40 Marks]**

**A1.**

Outline the concept of Statistical Process Control and its relevance to Total Quality Management. **[10]**

**A2.**

Explore the concept of six sigma in quality management. **[10]**

**A3.**

‘Without quality everything is nothing’. Discuss. **[10]**

**A4.**

Distinguish between the following terms as used in quality management

- (i) quality statement and quality policy
- (ii) quality control and quality assurance

**[10]**

**SECTION B: (ANSWER ANY THREE (3) QUESTIONS) [60 Marks]**

**B5.**

Nissan is famously associated with ‘KAIZEN’ or continuous quality improvement. Nissan states ‘We will not be restricted by the existing way of doing things. We will continuously seek improvements in all our nations’. Kaizen can be applied everywhere, anytime, any place. It can involve the smallest change in everyday working practice as well as a major change in production technology. Typically these improvements are initiated by teams of employees sitting down together and sharing ideas for improvements. Small steady changes are maintained to make sure that they actually work. No improvements is too small. Everyone at Nissan is responsible for thinking about the current way of doing a job and finding a better way of doing things. Highlight the benefits that the ‘kaizen’ concept can bring for Nissan.

**[20]**

**B6.**

Explore the different data analysis tools that are used in quality management and give examples of the areas in which each can be applied. **[20]**

**B7.**

‘There is no universally accepted definition of the term Quality’. Discuss. **[20]**

**B8.**

Examine how the application of ISO 9000 contribute towards continuous improvement of business process. **[20]**

**END OF QUESTION PAPER**