



**MANICALAND STATE UNIVERSITY  
OF  
APPLIED SCIENCES**

**FACULTY OF ENGINEERING, APPLIED SCIENCES AND  
TECHNOLOGY**

**DEPARTMENT OF APPLIED STATISTICS**

**MODULE: CALCULUS**

**CODE: ASTA 110**

**SESSIONAL EXAMINATIONS**

**JUNE 2023**

**DURATION: 3 HOURS**

**EXAMINER: MR A CHAKAIPA**

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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.***

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