MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

FACULTY OF ENGINEERING, APPLIED SCIENCES AND TECHNOLOGY

DEPARTMENT: COMPUTER SCIENCE AND INFORMATION SYSTEMS

MODULE: FUNDAMENTALS OF BUSINESS INTELLIGENCE

CODE: BIDA111

SESSIONAL EXAMINATIONS
JUNE 2024

DURATION: 3 HOURS

EXAMINER: MR. M. Muduva

INSTRUCTIONS
1. Answer **Any 4** questions
2. Each question carries 25 marks
3. Start a new question on a fresh page
4. Total marks 100

Additional material(s): None

QUESTION ONE

a. Define Business Intelligence. **[3 Marks]**

b. How does Business Intelligence support decision-making processes in organizations.

[9 Marks]

c. Describe any 3 Business Intelligence tools of your choice. **[9 Marks]**

d. What are the advantages of Business Intelligence systems over traditional reporting methods. **[4 Marks]**

QUESTION TWO

a. Compare and contrast Online Transactional Processing (OLTP) and Online Analytical Processing (OLAP). **[10 Marks]**

b. Explain the Data, Information, Knowledge, Wisdom (DIKW) hierarchy and its relation to information processing. **[10 Marks]**

c. What are the advantages of Online Analytical Processing (OLAP). **[5 Marks]**

QUESTION THREE

a. Explain the different types of data commonly used in Business Intelligence. **[9 Marks]**

b. Discuss common data challenges encountered in Business Intelligence projects.

[7 Marks]

c. Explain the following V's of Big Data.
    i.   Volume **[3 Marks]**
    ii.   Velocity **[3 Marks]**
    iii. Variety **[3 Marks]**

QUESTION FOUR

a. Explain the concept of descriptive analysis in Business Intelligence. **[11 Marks]**

b. Describe what-if analysis and scenario planning in the context of business intelligence. **[7 Marks]**

c. Discuss the concept of fuzzy decision-making and uncertainty in business intelligence. **[7 Marks]**

QUESTION FIVE

a.   What is Data Analytics as used in Business Intelligence?   **[5 Marks]**

b.   Explain the following types of analytics as used in business intelligence:

      i.   Descriptive Analytics   **[5 Marks]**

      ii.   Diagnostic Analytics   **[5 Marks]**

      iii.   Predictive Analytics   **[5 Marks]**

      iv.   Prescriptive Analytics.   **[5 Marks]**