(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)

UNIVERSITY MAIN EXAMINATIONS
2023/2024 ACADEMIC YEAR
YEAR TWO SEMESTER ONE

MAIN EXAMINATIONS
FOR THE DEGREE
OF
BACHELOR OF COMMERCE

COURSE CODE: **BCB 205**

COURSE TITLE: **MANAGEMENT INFORMATION SYSTEMS**

DATE: MONDAY, 18TH /12/2023 **TIME** : 12:00 - 2:00PM

INSTRUCTIONS TO CANDIDATES

1. Answer question ONE **(Compulsory)** and any other TWO questions

TIME: 2 HOURS

MMUST observes ZERO tolerance to examination cheating

QUESTION ONE (30 MARKS)

TRANSKEI AGRIBUSINESS CASE STUDY

Transkei Agribusiness is a Kenyan company specializing in the production and export of fresh fruits and vegetables to international markets. As the business grew, so did the complexity of its supply chain. As a result, the organization has been facing a number of challenges including among others:

1. **Complex Supply Chain:** ABC Agribusiness faced challenges in tracking its products from farm to market. The supply chain involved multiple stakeholders, including farmers, logistics providers, and international distributors.
2. **Data Fragmentation:** Data was stored in disparate systems and formats, making it difficult to gain a holistic view of operations.
3. **Lack of Real-time Information:** The management lacked real-time visibility into the status of orders, inventory levels, and quality control.

Early this year, Transkei Agribusiness' management made a decision to implement a Management Information System to streamline its operations, reduce inefficiencies, and enhance decision-making. After an in-house preliminary analysis by the organization's systems manager, it was decided that the envisaged MIS should have the ability to exhibit the following key elements:

1. An Enterprise Resource Planning (ERP) system customized for agribusiness operations. This element will be primarily responsible for automatically tracking and recording the day to day transactions of the organization.
2. Integrated data from various sources, including farms, warehouses, and transportation providers to enable real-time tracking of product movement and inventory levels.
3. Mobile Applications for farmers and field agents to report on crop conditions, harvest schedules, and other relevant data.
4. Sensors and IoT devices to be deployed at warehouses to monitor temperature, humidity, and other quality factors. This data can then be integrated into the system to ensure the product's quality throughout the supply chain.
5. The MIS should also provide management with real-time dashboards and customizable reports. These reports will offer insights into sales, inventory, transportation, and quality control.

After an elaborate tendering and procurement process, the contract to develop and implement the MIS was awarded to Skynet Technologies, a systems development house where you have been working as a systems analyst for the last three years. You have been appointed to join the team that will work on the project.

Use the above case to answer the following questions:

a) What do you propose to be incorporated into the envisaged system to enhance its usability? (8 marks)

b) Describe the various modules and sub-modules that will make up the above-mentioned ERP element of the proposed system. (12 marks)
c) Most information systems fail to meet the expected requirements due to poor implementation after they have been developed. What are the challenges you expect to encounter during this phase and how do you propose to overcome them. (10 marks)

QUESTION TWO (20 MARKS)

a) Explain the different circumstances where the design, implementation and use of information systems may conflict with the law or with ethical requirements. (6 marks)
b) Discuss the systems approach to management and the role the MIS plays in this process. (6 marks)
c) Enumerate the various tools and technologies available in a typical MIS that organizations can utilize to enhance the efficiency of their office operations. (8 marks)

QUESTION THREE (20 MARKS)

a) Use practical managerial decision making scenarios to illustrate the components and the software tools of a decision support system. (10 marks)
b) With the aid of a specific recently concluded MIS project, document the detailed design activities of the systems development lifecycle. (10 marks)

QUESTION FOUR (20 MARKS)

a) Explain how organizations and strategic managers can utilize information systems to attain ultimate levels of competitiveness for their products and services. (10 marks)
b) The M.I.S is not only a very expensively assembled asset of the organization, but it also stores and controls valuable information for the organization. Discuss the threats that these systems face and recommend measures of curbing these threats. (10 marks)

The end. Good luck.