KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR
FIRST YEAR, SECOND SEMESTER EXAMINATION
FOR THE DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY
DIT 1008 – COMPUTER APPLICATIONS II

Date: 7TH December 2023
Time: 2:30PM – 4:30APM

INSTRUCTIONS TO CANDIDATES
ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)
1. Explain the concept of spatial data in and provide examples of spatial data types   (5 Marks)
2. Describe the main components of a Geographic Information System (GIS) software system, and what roles do they play in data analysis and visualization   (8 Marks)
3. Explain the concept of Computer Aided Design System (CAD), and highlight how it has transformed the field of design and engineering   (6 Marks)
4. What is a financial application system, and what are its primary functions in the financial industry   (5 Marks)
5. Describe the process of geocoding and its significance in Geographic Information System (GIS) applications   (6 Marks)

QUESTION TWO (20 MARKS)
1. Explain the difference between 2D and 3D CAD modeling. Provide examples of industries where each is commonly used   (8 Marks)
2. Discuss the role of remote sensing in GIS. Provide examples of remote sensing technologies (6 Marks)
3. Explain the concept of spatial analysis in GIS and give examples of spatial analysis techniques   (6 Marks)

QUESTION THREE (20 MARKS)

1. Explain the role of AI in predicting financial trends and making investment decisions using financial application software   (8 Marks)
2. Describe the main components of an Enterprise Resource Planning (ERP) system and its role in financial management   (4 Marks)
3. State and explain the key features and tools in popular Computer Aided Design CAD software applications like AutoCAD   (4 Marks)

QUESTION FOUR (20 MARKS)

1. Describe how Computer Aided Design (CAD) software can be integrated with other design and manufacturing technologies, such as Computer-Aided Manufacturing (CAM)   (8 Marks)
2. Explain the difference between accounting software and financial modeling software   (8 Marks)
3. Describe how financial application systems help with budgeting and forecasting in organizations   (4 Marks)

QUESTION FIVE (20 MARKS)

1. Define Artificial Intelligence (AI) and Machine Learning (ML) and outline how they are related, and where are they applied in real life   (4 Marks)
2. Discuss the security considerations and best practices for financial data stored in these systems
                                                                                                   (8 Marks)
3. Provide a step-by-step guide on how to import GIS data into a CAD environment. Include software names and tools used   (8 Marks)