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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2022/2023 ACADEMIC YEAR**  
**FIRST YEAR, SECOND SEMESTER EXAMINATION**  
**FOR THE DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY**  
**DIT 1008-COMPUTER APPLICATIONS II**

Date: 11<sup>th</sup> April 2022  
Time: 2.30pm-4.30pm

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE: COMPULSORY (30 MARKS)**

- a. Define the term Artificial Intelligence (2 Marks)
- b. List 4 advantages of FIS (2 Marks)
- c. Describe major branches of Artificial Intelligence (6 Marks)
- d. What are some real-life applications of Artificial Intelligence? (8 Marks)
- e. Explain 4 types of data that are used in a GIS system (8 Marks)
- f. Differentiate between vector and raster data presentation in a GIS system (4 Marks)

**QUESTION TWO (20 MARKS)**

- a. Define a GIS system (2 Marks)
- b. Describe 4 components of a GIS system (8 Marks)
- c. What is the difference between Artificial Intelligence, Machine learning, and Deep learning?  
Give examples (10 Marks)

**QUESTION THREE (20 MARKS)**

- a. List the various applications of Financial application systems (8 Marks)
- b. What is the difference between strong AI and weak AI? (2 Marks)
- c. Define the 4 main function of a GIS systems (8 Marks)
- d. What are the 2 GIS data models (2 Marks)

**QUESTION FOUR (20 MARKS)**

- a. Describe the importance of database in GIS (4 Marks)
- b. What are the main sources of data for GIS (6 Marks)
- c. Draw and explain data capture process in a GIS system. (6 Marks)
- d. A GIS software has four main functional subsystems. Name them (4 Marks)

**QUESTION FIVE (20 MARKS)**

- a. Define CAD (2 Marks)
- b. Describe 4 advantages of using computer aided design (cad) over manual drafting?(4 Marks)
- c. Describe three application areas of CAD (6 Marks)
- d. Explain 2 types of CAD Software (2 Marks)
- a. Discuss the following terms as part of the emerging trends in computing.
  - i. Internet of Things (2 marks)
  - ii. Big data (analytics) (2 marks)
  - iii. Cloud Computing (2 marks)