



*(KNOWLEDGE FOR DEVELOPMENT)*

**KIBABII UNIVERSITY  
(KIBU)**

**UNIVERSITY EXAMINATIONS  
2019/2020 ACADEMIC YEAR**

**SPECIAL/SUPPLEMENTARY EXAMINATIONS  
FOURTH YEAR SECOND SEMESTER**

**FOR THE DEGREE IN**

**(INFORMATION TECHNOLOGY)**

**COURSE CODE: BIT 424**

**COURSE TITLE: GEOGRAPHICAL INFORMATION SYSTEMS**

**DATE: 08/02/2021**

**TIME: 2.00 PM.-4.00 PM.**

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**INSTRUCTIONS**

**ANSWER QUESTIONS ONE AND ANY OTHER TWO.**

**This paper consists of 2 printed pages. Please Turn Over.**

**QUESTION ONE (COMPULSORY) [30 MARKS]**

- a. Define the term GIS (4 Marks)
- b. Describe the concept of Remote Sensing (5 Marks)
- c. Distinguish between Land Use and Land Cover (6 Marks)
- d. Discuss the various factors to consider when carrying out image interpretation (10 Marks)
- e. Discuss the advantages of using a passive sensor (5 Marks)

**QUESTION TWO [20 MARKS]**

Describe the following concepts as used in GIS

- i. Clipping (5 Marks)
- ii. Buffering (5 Marks)
- iii. Overlaying (5 Marks)
- iv. Mosaicing (5 Marks)

**QUESTION THREE [20 MARKS]**

- a) Describe the advantages of GIS map over paper map (5 Marks)
- b) Distinguish between supervised and Unsupervised classification as used in Remote Sensing (15 Marks)

**QUESTION FOUR [20 MARKS]**

Discuss the various ways of representing vector data on maps (20 Marks)

**QUESTION FIVE [20 MARKS]**

**Discuss** the role of GIS and remote sensing in geographical research (20 Marks)