



W1-2-60-1-6
JOMO KENYATTA UNIVERSITY
OF

AGRICULTURE AND TECHNOLOGY

University Examinations 2016/2017

**EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN LAND RESOURCES PLANNING AND MANAGEMENT
ALP 2303: PRINCIPLES OF GIS**

DATE: DECEMBER 2016

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND ANY TWO
QUESTIONS IN SECTION B**

TIME: 2 HOURS

Section A (30 Marks)

1. Discuss the four (4) sources of information for development of GIS application. (10 Marks)
2. State the four (4) functions that all GIS must include. Explain. (10 Marks)
3. How does the "human factor" enter into GIS development and implementation? (10 Marks)

Section B (40 Marks)

- a) What is topology? Explain the three (3) topological models for GIS. (6 Marks)
 - b) Describe using an example how GIS could be used in your chosen profession and what solutions are envisaged. (14 Marks)
 - a) In your judgment, what are the two (2) most important steps in project planning? (10 Marks)
 - b) In what ways is GIS implementation in large organizations more of a management issue than a technological challenge? (10 Marks)
- With the aid of a picture, explain how GPS works. (20 Marks)