

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

UNIVERSITY EXAMINATIONS DECEMBER 2013

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF  
BACHELOR OF EDUCATION (ARTS)

(KISII LEARNING CENTRE)

COURSE CODE: NGE 102

TITLE: MAP INTERPRETATION AND DESCRIPTIVE STATISTICS

DATE: DECEMBER 2013

DURATION: 3HRS

INSTRUCTIONS

1. This paper contains FIVE questions. Question **ONE** is compulsory.
2. Write all answers in the booklet provided.

**QUESTION ONE**

Use the map of Kaimosi Series Y731 Sheet 102/4 provided to answer the following questions

- A. What is the area, in square kilometers, of part of the Nandi Forest shown on the map?  
(5marks)
- B. What is the general type of relief found within:
  - i. Easter part of the map (1mk)
  - ii. Eastings 07 to 15 and Nothings 25 to 27? (1mk)
- C. Suggest the climate of the area shown on the map. Give two evidences on the map.  
(3mks)
- D. State the stage of development of the part of River Yala shown on the map. Give two evidences derived from the map to support your answer. (3mks)
- E. What is the:
  - i. Approximate height of the hill in grid square 1024 and 1124? (1mk)
  - ii. Main reason for low population density to the north-eastern part of the area shown on the map. (1mk)

- F. Discuss five main economic potentials of the area giving evidence from the map (10mks)
- G. Calculate the drainage density of the area to the north-east bounded by easting 18 and nothing 24. (5mks)

### **Question Two**

- A. Using diagrams, explain the following maps:
  - i. Choropleth maps. (2mks)
  - ii. Dot maps. (2mks)
  - iii. Flow-line maps. (2mks)
- B. State the advantages and disadvantages of each of the four maps in (a) above. (6mks)
- C. Explain four methods of depicting relief on a map (8mks)

### **Question Three**

- A. Define the following terms:
  - i. Statistics (2mks)
  - ii. Variables (2mks)
- B. Explain the difference between:
  - i. A population and a sample (2mks)
  - ii. Data and information (2mks)
  - iii. Descriptive and inferential statistics (2mks)
  - iv. Qualitative and quantitative variables (2mks)
- C. Discuss the significance of statistical methods in geography (8mks)

### **Question Four**

- A. Explain the following types of scale:
  - i. Nominal scale (2mks)
  - ii. Interval scale (2mks)
- B. Describe any three techniques used in sampling (6mks)
- C. State the advantages of sampling (4mks)
- D. Explain the following types of lettering in map making:
  - i. Point size (2mks)
  - ii. Upright (2mks)
  - iii. Italic (2mks)

### Question Five

The following table summarises information on a river basin in an area of a map representing 12square kilometers on the actual ground.

STREAM ORDER	NUMBER OF STREAMS	TOTAL LENGTH
1	38	40.6
2	16	19.8
3	7	10.2
4	2	6.5
5	1	3.1

- A. Calculate the Bifurcation ratio ( $R_b$ ) for the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> order streams (4mks)
- B. Calculate the mean length of each stream order. (5mks)
- C. Determine the drainage density of the area. (2mks)
- D. Draw the drainage basin showing stream order and number of streams as in the table above. (9mks)