

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF EDUCATION

GEOG 233: CARTOGRAPHY AND SURVEYING

STREAMS:BA Y2S1

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 11/12/2019

2.30 P.M – 4.30 P.M

INSTRUCTIONS

Answer question one and any other two questions.

Illustrations, diagrams and examples should be used when necessary.

1. (a) Discuss any six factors considered when construction of a map. [18 marks]
(b) Calculate the correct area of a parcel of land measured using 20.06m chain to give 1.02 Ha with standard chain of 20.0 meters. [6 marks]
(c) Describe the THREE statistical maps used in geography. [6 marks]
2. Discuss FIVE types of surveying that are widely done. [20 marks]
3. (a) Explain THREE parameters measured during surveying. [6 marks]
(b) Explain using examples equipment's used for chain surveying. [9 marks]
(c) State FIVE characteristics of a chain used in surveying. [5 marks]
4. (a) Examine major sources of errors in surveying and show how to correct them. [10 marks]
- (b) Use trapezoidal rule to calculate the area of a land having offset taken at 10 meters base length as 14.56m, 20.02m, 22.32m, 18.60m, 15.30m and 17.80. [10 marks]
5. Write explanatory notes on the following;
 - (a) Levelling [2.5 marks]
 - (b) Obstacles to chain surveying [2 marks]

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| (c) Coordinates and bearing | [2.5 marks] |
| (d) Survey stations | [2.5 marks] |
| (e) Baseline | [2.5 marks] |
| (f) Projection systems | [2.5 marks] |
| (g) Cartography | [2.5 marks] |
| (h) Datum surface | [2.5 mark] |
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