

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF ARTS

GEOG 233: CARTOGRAPHY AND SURVEYING

STREAMS: B.A. Y2S1

TIME: 2 HOURS

DAY/DATE: MONDAY 29/03/2021

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS:

- **Answer question ONE and any other TWO questions.**
- **Illustrations, diagrams and sketches should be used when necessary.**

- (a) With an aid of a diagram, describe the various major features of a professional and educational map. (10 marks)

(b) Explain the THREE statistical maps used to depict quantitative spatial information. (6 marks)

(c) Examine the common cartographic principles used in mapping. (10 marks)

(d) State and explain the two types of symbols used to depict geographic features on a map. (4 marks)
- (a) Describe the various errors encountered in chain surveying. (6 marks)

(b) Discuss any FOUR types of surveys that can be done during measurements of feature positions. (10 marks)

(c) Calculate the correct length of a line measured with a chain believed to be 20 M long giving a length of 376.4 M and on checking the chain was found to be 20.04 M. (4 marks)

3. Discuss factors that are considered when constructing a map. (20 marks)
 4. (a) Outline the major process of carrying out chain surveying. (5 marks)
(b) Discuss major principles associated with surveying in general. (15 marks)
 5. Write short explanatory notes on the following terminologies used in leveling:
 - (a) Back sight (2.5 marks)
 - (b) Fore sight (2.5 marks)
 - (c) Intermediate sight (2.5 marks)
 - (d) Instrument station (2.5 marks)
 - (e) Bench mark (2.5 marks)
 - (f) Datum surface (2.5 marks)
 - (g) Change point (2.5 marks)
 - (h) Reduced level (2.5 marks)
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