

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE  
OF BACHELOR OF ARTS AND BACHELOR OF EDUCATION (ARTS)

GEOG 333: MAP READING AND AERIAL PHOTO INTERPRETATION

STREAMS: B.A & Bed (arts)

TIME: 2 HOURS

DAY/DATE: THURSDAY 01/04/2021

2.30 PM – 4.30 PM

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INSTRUCTIONS

- *Answer question one and any other two questions*
- *Use Illustrations where appropriate*

1. a) Distinguish between:
  - (i) relief and Topographic maps (3 marks)
  - (ii) Vertical photography and oblique photography (4 marks)
  - (iii) Nadir and Isocentre (3 marks)
- b) Illustrate how Neat Area of a stereomodel is obtained from photographs. (6 marks)
- c) Define:
  - (i) Contour map (2 marks)
  - (ii) Differential parallax (2 marks)
  - (iii) Collimating Marks (2 marks)
2. a) Describe the basic things you need to be familiar with to read a map successfully. (10 marks)
- b) Study the map below and answer the questions below
  - (i) Establish the contour interval. (1 mark)

- (ii) What is at grid reference 208825? (3 marks)
- (iii) Describe the relief of the land at 198815. (3 marks)
- (iv) How high is the highest point in grid reference 1980? (3 marks)



3. a) Explain how the stereoscope can be used to interpret the land use of a given region using tone and relief variation features. (10 marks)

b) Say you drive up the Nithi bridge road to Meru to check out the soil profile on the roadside. The road from the bridge to the Marima is 12.231km long. A sign at the bridge indicates that the road has a 12 percent grade. If Marima is 6,288 feet above sea level, what is the approximate elevation of the start of the road?

c) Distinguish between bifurcation ratio and drainage density. (6 marks)

4. a) Discuss the chronological development of aerial photography based on its equipment and platforms.

b) State Hortons law and demonstrate its application in map analysis. (8 marks)

5. a) In light of the sywnnerton plan of 1954, discuss aerial photography and mapping of different regions in Kenya. (14 marks)
- b) Describe three stages involved in the study of maps. (6 marks)
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