CHUKA   **UNIVERSITY**
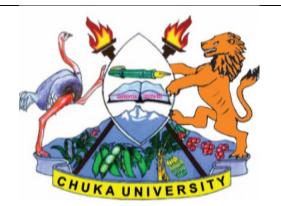

UNIVERSITY EXAMINATIONS

THARAKA UNIVERSITY COLLEGE

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE
OF BACHELOR OF EDUCATION ARTS

GEOG 144: INTRODUCTION TO PRACTICAL GEOGRAPHY AND FIELDWORK

STREAMS: BED (ARTS)   **TIME: 2 HOURS**

DAY/DATE: MONDAY 09/12/2019   **8.30 A.M. – 10.30 A.M.**

INSTRUCTIONS:

(i)   **Answer question ONE and any other TWO questions**

(ii)   **Use sketch maps and diagrams whenever they serve to illustrate an answer**

QUESTION ONE

(a)   Explain what analysis of drainage basin on topographical map means   [6 marks]

(b)   State the information used by Geographers to identify, classify and analyze different

types of settlement patterns in a map   [10 marks]

(c)   Outline the major activities in a fieldwork exercise   [6 marks]

(d)   Describe any four elements of Aerial photo interpretation   [8 marks]

QUESTION TWO

(a)   Define the term fieldwork as applies to geography   [4 marks]

(b)   State the benefits and usefulness of field work to geographers   [10 marks]

(c)   Describe THREE types of fieldwork in geography   [6 marks]

QUETSION THREE

(a)   Define Bifurcation Ratio according to Horton's laws (1932)   [4 marks]

(b)   Using the information in the table provided, calculate the Bifurcation ratio between the

first order stream segments and the second order segments   [6 marks]

Stream	Number of segments
1	17
2	7
3	5
4	4

(c)   Describe how slope and cross section of a slope can be analyzed in a topographical map

[10

marks]

QUESTION FOUR

(a)   Define and explain photogrammetry   [5 marks]

(b)   Identify and explain the major scale categories of Aerial photographs   [3 marks]

(c)   Write short notes on the following:

    (i)   Panchromatic Aerial photographs   [4 marks]

    (ii)   True color Aerial photographs   [4 marks]

    (iii)   False color Aerial photographs   [4 marks]

QUESTION FIVE

(a)   Describe any five parts an Aerial Camera   [5 marks]

(b)   Differentiate between Geometric and Semantic information in an image   [5 marks]

(c)   Calculate the scale of Aerial photographs below:

    (i)   Compute the scale of an aerial photograph when the flying height of the aircraft is

7500m and the focal length of the camera is 15 cm   [5 marks]

    (ii)   The distance between two points on an aerial photograph is measured as 2 cm. the

known distance between the same two points on the ground is 1 km. compute the

scale of the aerial photograph.   [5

marks]