CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF EDUCATION ARTS

GEOG 334: PHOTOGRAMMETRY

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

DAY/DATE: MONDAY 17/12/2018   **8.30 A.M. – 10.30 A.M.**

INSTRUCTIONS:

SECTION 1 (30 MARKS)

(a)   Distinguish
         (i)   Interior and exterior orientation   [5 marks]
         (ii)   Stereoscopes and stereo plotting   [5 marks]
         (iii)   Orthophotography and close range photogrammetry   [5 marks]
         (iv)   Digital and analogue image   [5 marks]
(b)   List the applications of close range photogrammetry   [5 marks]
(c)   List elements of interior orientation   [5 marks]

SECTION II: ANSWER ANY TWO QUESTIONS
QUESTION 2 (20 MARKS)
(a)   Describe the relationship between photogrammetry and remote sensing using a diagram

                                                                                                    [6 marks]
(b)   Using a diagram describe marginal information of an aerial photograph   [10 marks]
(c)   List advantages of using a digital camera   [4 marks]
QUESTION 3 (20 MARKS)
(a)   Illustrate the components of an aerial camera   [6 marks]
(b)   Explain the requirements of photogrammetric project planning   [10 marks]
(c)   Using a diagram illustrate the basics of laser scanning   [4 marks]

QUESTION 4 (20 MARKS)
(a)   List considerations that are used to classify aerial photographs   [6 marks]
(b)   Describe the difference between the laser scanning and photogrammetry   [6 marks]
(c)   Outline the advantages and disadvantages of laser scanning   [8 marks]

QUESTION 5 (20 MARKS)
(a)   Describe three concepts of digital image resolution   [10 marks]
(b)   Explain most common digital image formats   [5 marks]
(c)   Using a diagram illustrate the geometry of tilted photographs   [5 marks]