



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
THIRD YEAR FIRST SEMESTER
SECOND YEAR SECOND SEMESTER**

**SCHOOL OF TOURISM AND NATURAL
RESOURCE MANAGEMENT
BACHELOR ARTS IN GEOGRAPHY/BSC EARTH
SCIENCES**

**COURSE CODE: GEO 319/EES 2230
COURSE TITLE: PHOTOGRAMMETRY**

DATE: 27TH APRIL, 2018

TIME: 1100 - 1300 HRS

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section **A** and any other **THREE** in section **B**.

This paper consists of 3 printed pages. Please turn over.

SECTION A (25 MARKS)

1. Two advantages and two disadvantages of vertical aerial photographs
(4 marks)
2. Explain the difference between oblique aerial photographs and vertical aerial photographs
(2 marks)
3. Assume that you have recently accepted a position as an employee of an aerial survey company where your responsibilities include preparation of flight plans for the company's customers. Explain three factors that you must consider as you plan each mission
(6 marks)
4. What is a photographic filter? Explain why photographic filters are used in aerial photography and give the use of a yellow filter
(3 marks)
5. With clear points and illustration where possible, trace the steps involved in the production of a final image on a positive paper print using a black and white film
(5 marks)
6. The parallax difference between top and bottom of a tree is measured as 1.32 mm on a stereo pair of photo taken at 3000 ft above ground. Average photo base is 88 mm. How tall is the tree?
(5 marks)

SECTION B (45 MARKS)

7. (i) Describe the concept of stereoscopy and describe the two types of the most commonly used stereoscopes
(5 marks)
(ii) Explain how the stereoscope can be used to interpret the geology of a given region using tone and relief variation features
(10 marks)
8. Describe three (3) different film types used in aerial photography, and for each give its advantages and disadvantages. (15 marks)
9. Discuss in detail any three major developments that led to the advancement of photogrammetry. In your discussion, state how exactly the particular development contributed to photography
(15 marks)
10. (i) With a well labelled illustration(s), explain how aerial
11. photographs are taken to give an over-lap
(5 marks)
(ii) Write short notes on the following as used in aerial photography
(10 marks)
 - (a) Distortion in aerial photography
 - (b) Mosaics
 - (c) Orthophotos
 - (d) Parallax
 - (e) The importance of aerial photographs

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