



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS

AGE 300 : AIR PHOTO INTERPRETATION AND FIELD COURSE

DATE: MONDAY 2ND APRIL 2012

TIME: 2.00 P.M. – 4.00 P.M.

INSTRUCTIONS

Answer question one and any other two questions

Diagrams should be used whenever it serves to illustrate an answer

Question 1

a) Explain the importance of the following features in air photo interpretation

- | | |
|--------------|-----------|
| I. Shape | |
| II. Pattern | (3 marks) |
| III. Texture | (3 marks) |
| IV. Shadow | (3 marks) |

b) Distinguish between objectives and hypotheses (6 marks)

c) An aerial photograph was taken of a part of Mau Forest at an altitude of 850m above the ground, with a camera lens of focal length of 152mm (take h to be negligible)

- i) Calculate the average scale of the photograph (2 marks)
- ii) Calculate the height in meters of a Mama Mutere tree which appears in the scene, located 6.4cm from the principal point and whose top is displaced from its base by 0.3 cm (3 marks)

d) Write short notes on the following

- | | |
|----------------------|-----------|
| i) Fiducial marks | |
| ii) Principal points | (2 marks) |
| iii) Photo mosaics | (2 marks) |
| | (3 marks) |

Question 2

Discuss the factors to be put into consideration in flight mission (20 marks)

Question 3

- a) What are the advantages of vertical air photograph over oblique air photography (10 marks)
- b) Briefly describe two main types of stereotypes (10 marks)

Question 4

Write explanatory notes on the following types of sampling

- a) Stratified sampling (5 marks)
- b) Cluster sampling (5 marks)
- c) Quota sampling (5 marks)
- d) Systematic sampling (5 marks)

Question 5

Differentiate the following;

- a) Field jotting and field note (6 marks)
- b) The log and the diary (6 marks)
- c) Descriptive and analytical notes (8 marks)

Question 6

Giving advantages and disadvantages, explain how the following methods can be used to collect data

- i) Questionnaires (10 marks)
- ii) Interviews (10 marks)