



# MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL SCIENCES

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF EDUCATION (ARTS)

BACHELOR OF ARTS

AGE 300: AERIAL PHOTO INTERPRETATION

DATE: 25/7/2019

TIME: 11.00-1.00 PM

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**INSTRUCTIONS: answer question one and any other two questions**

**Sketch maps and diagrams can be used to illustrate your answer whenever possible.**

## QUESTION ONE

- a) Describe any four reasons for photo mission. (8 marks)
- b) Distinguish between;
  - i. Metric and semantic information. (2 marks)
  - ii. Aerial and terrestrial photography. (2 marks)
- c) Describe any 3 methods of computing photo scale (8 marks)
- d) Discuss the process of the acquisition of aerial photographs. (6 marks)
- e) Enumerate the importance of controlled photo mosaics (4 marks)

## QUESTION TWO

- a) Explain the importance of the following;
  - i. Fiducial marks (2 marks)
  - ii. Nadir (2 marks)
  - iii. Principal focus (2 marks)
  - iv. X & Y axis (2 marks)
  - v. Isocentre (2 marks)

- b) Two parallel roads x & y on a stereo pair measures 100mm and 80mm respectively on the topographic map (1:30000) the two roads measure 160mm and 140mm respectively. Using the above information, calculate the following;
- I. Calculate the average scale of the photo stereo pair (8 marks)
  - II. Describe the classification category in which the photo scale falls (2 marks)

### **QUESTION THREE**

Assume that you are a resource analyst with an environmental consultant firm you are required to undertake an aerial mapping of flooding in the lake Victoria Basin. What considerations would you make in the preparation for exercise? (20 marks)

### **QUESTION FOUR**

- a) Differentiate between low angle photograph and high angle oblique photographs. (4marks)
- b) What are advantages of vertical aerial photographs over oblique photographs? (10 marks)
- c) Describe the use of different mosaics in photography. (6 marks)

### **QUESTION FIVE**

Citing specific examples, trace the development of aerial photographs since the invention of photographic camera. (20 marks)