



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

THIRD YEAR FIRST SEMESTER SPECIAL/SUPPLEMENTARY EXAMINATION FOR BACHELOR OF ARTS AND BACHELOR OF EDUCATION

AGE 300: AIR PHOTO INTERPRETATION AND FIELD COURSE

DATE: 8/3/2023

TIME: 11.00 – 1.00 PM

INSTRUCTIONS:

Answer Question **One** and any other **two** Questions: At Least One question from Sections B and C

SECTION A: COMPULSORY

QUESTION ONE: (30 MARKS)

- (a) Explain the following terms:
- | | | |
|------|--------------------|-----------|
| i. | Panchromatic film | (2 marks) |
| ii. | Aerial photography | (3 marks) |
| iii. | Fiducal marks | (2 marks) |
| iv. | Lens stereoscope | (3 marks) |
- (b) Assume that you are a resource analyst with an environmental consultant firm. You are required to undertake an aerial mapping of Konza City and its environs. Explain the major considerations you may have to make in preparation for the exercise. (10 marks)
- (c) Compare and contrast probability and non-probability sampling procedures (10 marks)

SECTION B: AIR PHOTO-INTERPRETATION

QUESTION TWO (20 MARKS)

With suitable illustrations explain how one can use the principles of air photo-interpretation to identify and classify the major land uses in the Machakos Town (20 marks)

QUESTION THREE (20 MARKS)

- (a) Define a photo-scale (2 marks)
- (b) Explain any three methods used in computing of photo-scales (9 marks)
- (c) Using suitable illustrations, distinguish between relief and tone as used in aerial photography (8 marks)

SECTION C: FIELD-COURSE

QUESTION FOUR (20 MARKS)

- a) Discuss in a logical sequence the components that constitute a good research report (15 marks)
- b) Explain the challenges associated with field trips (5 marks)

QUESTION FIVE (20 MARKS)

Assess different tools used to collect data and highlight their limitations (20 marks)