



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL SCIENCES

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF EDUCATION (ARTS)

BACHELOR OF ARTS

AGE 402: SURVEYING

DATE: 29/4/2019

TIME: 8.30-10.30 AM

INSTRUCTIONS

Answer Question One and any other Two Questions

1.
 - a) Provide a brief history of survey (5 marks)
 - b) Differentiate between field work and office work in surveying (4 marks)
 - c) Briefly explain how the following types of surveys are carried out
 - i. Land surveys (4 marks)
 - ii. Topographic surveys (4 marks)
 - iii. Cadastral surveys (4 marks)
 - d) Describe characteristics of the following classes of surveys
 - i. Preliminary surveys (3 marks)
 - ii. Layout surveys (3 marks)
 - iii. Control Surveys (3 marks)
2.
 - a) Describe geoid as a reference surface used for mapping (10 marks)
 - b) Describe the procedure followed in the various methods of constructing projections (10 marks)

- 3 Explain the following processes as used in surveying
- a) Plane surveying (8 marks)
 - b) Geodetic surveying (7 marks)
 - c) Land surveying (5 marks)
- 4 Describe the process of transforming spheroidal geodetic coordinates to plane coordinates positions (20 marks)
- 5
- a) Explain how prismatic compass is used to measure bearings of points (10 marks)
 - b) Illustrate how optical levelling instruments are used in horizontal and vertical measurements (10 marks)