



MACHAKOS UNIVERSITY
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
Department of Social Sciences

SPECIAL/SUPPLEMENTARY EXAMINATION FOR FIRST SEMESTER
EXAMINATION FOR THE DEGREE OF BACHELOR OF
ARTS & BED ARTS

AGE 402: SURVEYING

- 1a) Provide a brief history of survey (5 marks)
- b) Differentiate between field work and office work in surveying (4marks)
- c) Briefly explain how the following types of surveys are carried out
- i) Land surveys (4marks)
 - ii) Topographic surveys (4marks)
 - iii) Cadastral surveys (4marks)
- d) Describe characteristics of the following classes of surveys
- i) Preliminary surveys (3marks)
 - 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
- i) Plane surveying (8 marks)
 - ii) Geodetic surveying (7 marks)

iii) 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 (10marks)