



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

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: 19/10/2020

TIME: 8:30 – 10:30 AM

INSTRUCTIONS: Answer QUESTION ONE and any other TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Describe the following terms:
- i. Transit (3 marks)
 - ii. Surveying (2 marks)
 - iii. Traversing (5 marks)
 - iv. Accuracy (3 marks)
 - v. Precision (3 marks)
- b) Describe four types of measurements made in surveying (8 marks)
- c) Explain the common sources of error in surveying (6 marks)

QUESTION TWO (20 MARKS)

- a) Discuss the basic operating principles of EDM class of surveying instruments (10 marks)
- b) Using illustrations, describe how Abney level is used to measure height of objects in an accessible area (10 marks)

QUESTION THREE (20 MARKS)

- a) Examine the reasons why vertical angles are required in survey (6 marks)
- b) Assess the role of hydrographic surveys in Kenya (14 marks)

QUESTION FOUR (20 MARKS)

Explain the procedure of taking horizontal measurements across a depression and across a hill in chain surveying

QUESTION FIVE (20 MARKS)

- a) Measurement of a road was recorded as 171.278 meters with a steel tape that was only 29.996 meters under standard atmospheric pressure and temperature.
- i) What is the correction per tape length? (4 marks)
 - ii) Calculate the corrected distance (4 marks)
- b) Define the term traversing and explain how it's done in surveying work (12 marks)