



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

INSTITUTIONAL BASED PROGRAMME (DECEMBER SESSION)

EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS

AGE 402: SURVEYING

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DATE: FRIDAY 4TH MAY 2012

TIME: 2.00 P.M. – 4.00 P.M.

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INSTRUCTIONS

Answer question ONE and any other TWO questions.

Use illustrations where appropriate

1. a) Define the following terms;
 - i) Levelling (4 marks)
 - ii) Forward bearing (4 marks)
 - iii) Triangulation (4 marks)
 - iv) Random errors (4 marks)

- b)
 - i) Describe the various steps followed in calibration of paces. (5 marks)
 - ii) If 40 paces = 30 metres and the scale to be used is;
1cm represents 4 metres; complete the following table.

Line	Paces	Length in centimeters (cm)
AB	48	
BC	27	
CD	51	
DE	26	
EA	25	

(5 marks)

2. a) Describe the features of a surveyor's chain. (8 marks)
b) How is a surveyor's chain used to measure offsets in triangulation?(14 marks)
3. a) Explain the concept 'work from the whole to the part' in surveying.(10 marks)
b) "All survey work is suspect until proved otherwise". Explain . (12 marks)
4. By use of illustrations, explain how offsets are measured and recorded in Compass traverse method of surveying. (22 marks)
5. a) Define error of closure. (5 marks)
b) Illustrate how to adjust the framework in order to remove error of closure. (17 marks)