



FACULTY OF ENGINEERING AND ENVIRONMENT
DEPARTMENT OF GEOMATICS AND SURVEYING
Cadastral Survey
EGS 5201
Final Examination Paper

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Examiner's Name: Mr C. Musiiwa

INSTRUCTIONS

1. Answer **ALL** Questions
2. The use of calculators is allowed

1. Define the following terms according to the Land Survey(General) Regulations, 1979

- a. Servitude [3]
- b. Consolidated diagram [3]
- c. Beacon [3]
- d. High density Undeveloped Township [4]
- e. Property [3]
- f. Indicatory beacon [4]

2. Given the following coordinates perform a coordinate comparison and produce a comparison sketch. Comment on which beacons are to be accepted and rejected.

Survey 1 DM5 50 863.599 2 236 109.7
Survey 2 DM5 50 863.546 2 236 109.5

Survey 1 T7 50 755.601 2 235 988.1
Survey 2 T7 50 755.590 2 235 987.9

Survey 1 T7x 50 752.527 2 235 992.0
Survey 2 T7x 50 752.506 2 235 991.9

Survey 1 PS2D 50 644.098 2 236 143.6
Survey 2 PS2D 50 644.076 2 236 143.5
Survey 1 DD6 50 684.228 2 236 079.6
Survey 2 DD6 50 684.179 2 236 079.5

[15]

3. The coordinates below were extracted from a survey done in Senga, Gweru. Adjust the traverse using the Bowditch method.

	Y	x	
MT311	53680.441	2 235828.766	
MT 355	53854.972.	2236001.119	
MT354.	53845.830.	2235915.882	
MT 426.	53685.526.	2235840.594	
MT 513.	53774.110.	2235895.520	
MT 597	53799.313	2235870.842	
MT 311	53682.441.	2235630.766	[20]

4. Given the coordinates below, calculate the area of the figure with coordinates below.

Survey 1 DM5	50 863.599	2 236 109.7	
Survey 1 T7	50 755.601	2 235 988.1	
Survey 1 T7x	50 752.527	2 235 992.0	
Survey 1 PS2D	50 644.098	2 236 143.6	
Survey 1 PQ.	50 684.228.	2236079.6	[15]

5. Using the land surveyors act, highlight the key qualification and duties for the following surveying professionals and their restrictions.

a. Land surveyor

b. Land surveyor in Training

c. Land survey technician

d. Surveyor general

[8]

The surveyor general's office has two offices located in Bulawayo and Harare respectively. Using your knowledge as a surveyor, explain the processes that the survey record undergoes and the respective person in charge from the lodging, examination and return to surveyor phase. . [12]

When lodging the survey record, what are the key documents that constitute a complete and acceptable survey record as well as the respective composition of each document.

[10]

END OF EXAMINATION