



UNIVERSITY
OF
JOHANNESBURG

PROGRAM : NATIONAL DIPLOMA
XXXXXXXXXXXXXXXXXXXXXXXXXXXX

SUBJECT : **SITE SURVEYING**

CODE : **SSG111**

DATE : SUMMER SSA EXAMINATION 2017
12 JANUARY 2017

DURATION : (SESSION 2) 11:30-13:30

WEIGHT : 40:60

FULL MARKS : 100

TOTAL MARKS : 100

EXAMINER : MR. Ali Vessal SAPSE NO

MODERATOR : MR. D.N. Wilson FILE NO

NUMBER OF PAGES : 4 PAGES

INSTRUCTIONS : CALCULATORS ARE PERMITTED (ONLY ONE PER STUDENT)

REQUIREMENTS : GRAPH PAPER, DRAWING EQUIPMENT

Surname and Initial

Student #

INSTRUCTIONS TO STUDENTS:

1. ANSWER ALL QUESTIONS.
2. Show all your calculations to get a full mark
3. Return your question paper and all loose sheets with your answer sheets to the examiner

QUESTION 1

A levelling survey was performed with following data. The road intersects ground surface @ both ends of survey line (chainage of 0 and 491m) .

4.1 Fill in the following reduced level table and use Rise and Fall to calculate the elevations. (20)

4.2 Draw the long section profile using scale for Horizontal 1:2500 and 1:50 for vertical. Your datum for drawing is 999.5m A.M.S.L. (25)

Pegs	BS	IS	FS	R/F	Reduced Level	Corr.	Final Elevation	Distance	Required Grade	Grade Elevation
BM1	2.1						1000	0		
1		0.9						92		
2	3.2		3.1					189		
3	2.2		2.2					278		
4		1.6						378		
BM2			2.5				999.79	491		
	$\Sigma BS =$		$\Sigma FS =$				slope =			
				$\Sigma R - \Sigma F =$						
	$\Sigma BS - \Sigma FS =$					Corr. =				
						Error =				

[45]**QUESTION 2**

Calculate the area of the construction site with its coordinates given in the following table.

Pts	Y	X
P	591.83	1562.33
R	861.50	1772.73
S	842.650	1409.5

QUESTION 2

Calculate the area of the construction site with its coordinates given in the following table.

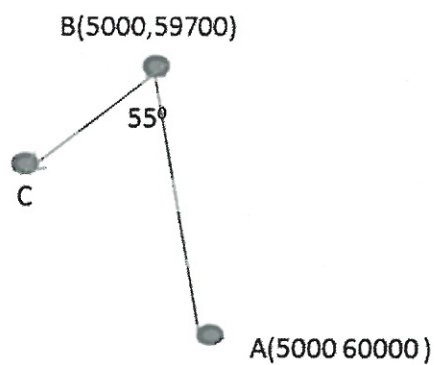
Pts	Y	X
P	591.83	1562.33
R	861.50	1772.73
S	842.650	1409.5

[25]

QUESTION 3

Determine the Coordinates of C in the following open traverse.

HD of BC=	182m
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[15]

QUESTION 4

Draw the contours in the following figure(page 4) using Contour Interval(C.I.) of 1m(next page)

Surname and Initial Student #.....

