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EMBU UNIVERSITY COLLEGE
(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)

SEMESTER EXAMINATIONS 2013/2014

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE WATER RESOURCE MANAGEMENT

AWM 203: SURVEY AND MAPPING

DATE: APRIL 10, 2014

TIME: 2.00 – 4.00PM

INSTRUCTIONS:

Answer Question ONE and ANY other TWO .

QUESTION ONE

a). Describe the differences between the following concepts:-

i.) Geoid and ellipsoid reference surfaces (4marks)

ii.) General purpose and Specific purpose Maps (4marks)

b). Explain the various steps followed in adjusting a closed traverse. (5marks)

c). (i). Complete the Table below and draw the framework at a scale of **1cm to 10metres.** (9marks)

Line	Length in metres	Forward Bearing	Back Bearing	Revised Forward Bearing	Length appropriate to scale
AB	122	81°	265°		
BC	128	165°	347°		
CD	185	274°	95°		
DA	80	16°	199°		

ii). What is the Length and Bearing of error of closure identified in c(i), above?

(4marks)

iii). Adjust the Traverse of the drawn framework in c(i), above.

(4marks)

QUESTION TWO

a). What is Levelling in topographic survey?

(5marks)

b). Describe the basic procedure in Dumpy level setup for Station to Station leveling.

(15marks)

QUESTION THREE

a). Explain the common mistakes encountered due to lack of skills and vigilance on the part of the surveyor(s).

(14marks)

b). Describe the four features of a Surveyor's chain.

(6marks)

QUESTION FOUR

a). By use of illustration, explain how Prismatic Compass computes the bearing of inaccessible details in Traversing method of survey.

(10marks)

b). Explain the concept "work from the whole to the part" in surveying process.

(10marks)

QUESTION FIVE

Describe the various stages in Plane Table method of topographic survey.

(20marks)

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