THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

((A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

DIPLOMA IN CIVIL ENGINEERING

EBC 2217: CIVIL ENGINEERING DRAWING & CAD

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: OCTOBER 2012
TIME: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
- *A personal computer or laptop computer installed with AutoCAD*
- *Create a folder in the desktop and name it after your class i.d. DC11; Save ALL your answers in this folder. Name your Microsoft word file ad AutoCAD file using your student registration number.*
This paper consists of **FIVE** questions.

Answer any **THREE** questions
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question One (20 marks)

a) (i) Briefly explain the concept of tool bars in CAD.

    (ii) State any **FOUR** examples of tool bars   **(12 marks)**

b) Discuss the advantages and disadvantages of using CAD in making engineering drawings.
                                                                       (4 marks)
c) Explain the **THREE** methods of accessing commands in CADs.   **(4 marks)**

Question Two (20 marks)

The sketch below shows a chain surveying done on a small piece of land. Using CAD draw outline of the area covered by the survey (A, B,C,D,E,F,G,H,G,H and A)

Question Three (20 marks)

A reinforced concrete insitu beam is to be casted on a site. Design and draw a suitable form work for the beam. Using sections of timber.   **(20 marks)**

Question Four (20 marks)

The information given in the table below relates to a proposed pipeline.

Table 1

Chainage	Bearings			Formation
	o	'	"	Level (above sea level)
0+000	00	00	00	112.000
0+100	55	55	21	115.200
0+150	125	17	40	117.300
0+200	238	39	57	129.550
0+250	180	00	00	125.650
0+350	256	16	36	135.500
0+450	294	21	39	148.750
0+500	37	03	34	145.450

Using the information given in table 1 above, plot the plan of the proposed pipeline.   **(20 marks)**

Question Five (20 marks)

Using the information given in table 1 above, plot the longitudinal profile of the proposed pipeline.
                                                                         (20 marks)