THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

BRIDGING TO HIGHER DIPLOMA (BHD11**)**

EBC 2217 : CIVIL ENGINEERING CAD

SEMESTER EXAMINATIONS

SERIES: AUGUST 2011

TIME: 3 HOURS

Instructions to Candidates:

You should have the following for this examination:

- Answer Booklet
- Laptop/Desktop Computer

This paper consists of **TWO** sections: **Section I and II.**
Section I has **30 marks** and Section II has **40 marks**.
Attempt **ALL** Questions in Section I and only **TWO** Questions from Section II
Save your answer in AutoCAD using your **FULL** names followed by your student number
This paper consists of **FOUR** printed pages

SECTION I (COMPULSORY)

QUESTION 1

a) Explain the use of the following buttons in the status bar. (10 Marks)

i) SNAP

ii) GRID

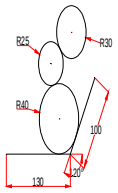
iii) ORTHO

iv) POLAR

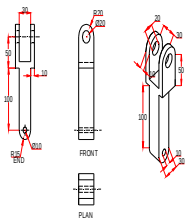
v) OSNAP

b) List down **FIVE** things one can do when they make a mistake while working with AutoCAD (5 Marks)

c) Using the **Line**, **Circle** and **Ttr** prompt construct the figure shown below. (4 Marks)



d) Using AutoCAD, draw the first angle orthographic projection and isometric projection of the solid as shown below. (11 Marks)

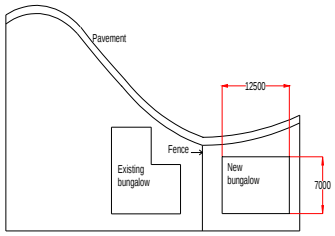


SECTION II

ANSWER ANY TWO QUESTIONS

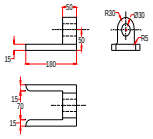
QUESTION 2

The figure below shows a bungalow to be built in the garden of an existing bungalow. Construct the drawing of the floor layout plan and the front elevation of the proposed two- bedroomed bungalow and insert symbols from the design center. (20 Marks)



QUESTION 3

The figure below is a first angle orthographic projection of a solid. Construct a three-view third angle projection of the solid and its isometric drawing. (20 Marks)



QUESTION 4

a) Explain the use of the following co-ordinate systems as used in CAD and for each give an example. (9 Marks)

   i) Absolute co-ordinates
   ii) Relative co-ordinates
   iii) Polar co-ordinates

b) Using the AutoCAD software, draw a cantilever retaining wall and a mass retaining wall and on each show the following: (11 Marks)

   i) Passive earth pressure
   ii) Active earth pressure
   iii) Ground pressure

QUESTION 5

Draw the section through a house and clearly show the roof detail and the floor detail. (20 Marks)