



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)  
*Faculty of Engineering and Technology*

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

**DIPLOMA IN CIVIL ENGINEERING & CAD (DCC 09A)**

EBC 2217: CIVIL ENGINEERING CAD

**END OF SEMESTER EXAMINATION**

SERIES: DECEMBER 2011

**TIME: 2 HOURS**

## **Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*
- *Laptop/Desktop Computer*

This paper consists of **FIVE** questions in two sections **A & B**

Answer question **ONE (COMPULSORY)** and any other **TWO** questions.

Maximum marks for each part of a question are clearly shown

This paper consists of **SIX** printed pages

## SECTION A (COMPULSORY)

### Question 1 (30 marks)

- a) Explain the **SEVEN** major stages involved in the design process (14 marks)
- b) List down the steps involved when plotting or printing a drawing (8 marks)
- c) The figure below shows a third angle isometric projection of a solid. Draw the 3D solid in the THREE: Right viewport (8 marks)

*Figure 1*

**SECTION B (Answer any TWO questions from this section)**

**Question 2 (20 marks)**

The figure below shows a site plan for a proposed bungalow. Construct the 3D drawing of the proposed two-bed roomed house on the Two: Horizontal view port on a well landscaped compound. Provide well designed doors and windows. (20 marks)

*Figure 2*

**Question 3 (20 marks)**

The figure below is a floor plan of a three bed roomed house. Design the 3D view of the complete house on a well landscaped compound. Provide well designed doors, windows. (20 marks)

*Figure 3*

**Question 4 (20 marks)**

The figure below is a three view projection of a model. Working to the details given, construct the 3D model on the four. Equal viewport and render appropriately

***Figure 4***

**Question 5 (20 marks)**

- a) Construct the figure shown below on a THREE: Right viewport and revolve it to form a solid of revolution through  $180^\circ$  (10 marks)

*Figure 5*

b) Working to the polylines shown below, construct the sweep shown below

(10 marks)

***Figure 6***