



**THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

**(A Constituent College of JKUAT)**

(A Centre of Excellence)

# **Faculty of Engineering & Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

**BRIDGING TO HIGHER DIPLOMA IN BUILDING & CIVIL ENGINEERING  
(BHD 12J)**

EBC 2417: CIVIL ENGINEERING WITH CAD I

**SPECIAL/SUPPLEMENTARY EXAMINATION**

**SERIES: OCTOBER 2012**

**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**.

Section **A** has **30 marks** and section **B** has **40 marks**. Attempt **ALL** questions in section **A** and **TWO** questions in section **B**

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

### **SECTION A (COMPULSORY)**

#### **Question One (30 Marks)**

- a) Define the terms below as used in AutoCAD.
- i) Polar co-ordinate (1 mark)
  - ii) Snap mode (1 mark)
  - iii) Line weight setting (1 mark)
  - iv) Tool palletes (1 mark)
  - v) Line type scale (1 mark)
  - vi) Layer colour setting (1 mark)
  - vii) What is a layer properties manager (1 mark)
- b) Describe how to fillet two connecting lines. (6 marks)
- c) Briefly describe how to create and save a new layer(s) (6 marks)
- d) Describe architectural symbols with aid of sketches, give examples of FIVE (8 marks)
- e) Describe boundary edges which command is used to prompt boundary edges. (4 marks)

### **SECTION B (ATTEMPT ANY TWO QUESTIONS)**

#### **Question Two (20 Marks)**

Redraw the plan as shown in drawing one, include a roof plan, on it show the fall of the pitch. (20 marks)

#### **Question Three (20 Marks)**

Draw a labeled section through X – X in drawing two. (20 marks)

#### **Question Four (20 Marks)**

Redraw the plan in drawing **THREE** using layers. Use layers details given below.

<b>LAYER</b>	<b>LINE COLOUR</b>	<b>LINE WEIGHT</b>	<b>LINE TYPE</b>
Wall	Magenta	0.35	Continuous
Doors	Cyan	0.30	By Block
Windows	Green	0.30	By layers
Dimensions	Yellow	0.25	Continuous
Wording	Blue	0.30	Continuous

#### **Question Five (20 Marks)**

Design a one-Bed roomed bungalow showing a labeled dimension floor plan, back elevation, 2 side elevations, and the roof plan.

On the roof plan show the fall of the pitch.

**(20 marks)**