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 BUILDING AND CIVIL ENGINEERING

EBC 2131: ENGINEERING DRAWING I

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

<u>**Instructions to Candidates:**</u>
You should have the following for this examination
- *Drawing Instruments*
- *Drawing Paper Size A3*
- *Drawing Board & Stand*
- *All dimensions in mm*
This paper consists of **FIVE** questions.

Answer question **ONE (Compulsory)** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **TWO** printed pages
Question One (30 marks)

Drawing in figure 1. Show details of a V-block. Draw full-size, using 3rd angle projection the following views.

a) A Plan
b) A front elevation
c) An end elevation

    Fully dimension the drawing

    Arrow A points to the end view while

    Arrow B points to the plan view   (30 marks)

Question Two (20 marks)

Figure 2 shows two orthographic views of a block. Draw full size, the isometric view of the Block, with point x in the foreground.   (20 marks)

Question Three (20 marks)

a) Show the conventional symbols representing both first and third angle projections.   (4 marks)
b) Construct a tangent to a circle of diameter 30mm.   (4 marks)
c) Figure 3 shows two views in orthographic projection. Draw a pictorial view of the project in oblique cabinet method.   (12 marks)

Question Four (20 marks)

Make free hand pictorial sketches of any four of the following hand tools found in Building and Civil Engineering Workshops.   **(20 marks)**

    a) Flat screw-driver
    b) Star screw-driver
    c) Round File
    d) Hand drill
    e) File handle
    f) Painting brush

Question Five (20 marks)

a) Draw the surface development of the cone shown in figure 4(a) below   **(10 marks)**

b) If the pyramid in figure 4(a) is now cut obliquely as shown in figure 4(b). Draw:
    i) The True shape of cut on Front Elevation
    ii) The span
    iii) The End Elevation   **(10 marks)**