TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

CERTIFICATE IN BUILDING & CIVIL ENGINEERING (CBCE)

EBC 1102: ENGINEERING DRAWING II

END OF SEMESTER EXAMINATION
SERIES: DECEMBER 2013
TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Drawing Instruments*
- *Drawing paper size A3*

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 **TWO** printed pages

Question One

a) Draw perpendicular line at the end of a straight line AB 100mm long **(2 marks)**

b) Inscribe a circle within a triangle of sides 60mm, 80mm and 50mm **(3 marks)**

c) Circumscribe a circle to a given triangle of sides 70mm, 60mm and 100mm **(3 marks)**

d) Illustrate the following types of drawing lines
   (i) Construction lines **(1 mark)**
   (ii) Hidden detail lines **(1 mark)**
   (iii) Centre line **(1 mark)**
   (iv) Out line **(1 mark)**

e) Draw line AB 100mm and divide it into 7 equal parts **(5 marks)**

f) Construct an equilateral triangle within a circle of diameter 60mm **(3 marks)**

Question Two

Figure 1 shows a mild steel bracket. Draw full size in 1st angle projection.

a) Front elevation in the direction of arrow A
b) End elevation in the direction of arrow B
c) Plan in the direction of arrow P **(20 marks)**

Question Three

Figure 2 shows THREE views of a block in 3rd angle projection. Using the dimensions given, draw full size the isometric view of the block. Do not dimension the drawing. **(20 marks)**

Question Four

Draw free hand pictorial sketches of any four of the following items:

(i) Combination pliers
(ii) Ball pain hammer
(iii) Clay hammer
(iv) Mallet
(v) Anvil
(vi) Spirit level **(20 marks)**

Question Five

a) Draw a cone of height 80mm and base radius 30mm **(10 marks)**

b) Complete the plan and surface development of the cone **(10 marks)**