MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2013/2014

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

Examination for Diploma in Building Technology module I

BCE BT 109/ BCE CD 109 ENGINEERING DRAWING I

Date: 5/7/2014   **Time: 8:30 – 10:30 am**

This paper consists of two sections A & B

Answer all questions in section A and any other two questions in section B

Maximum marks for each part of a question are as shown

All measurements are in millimeters.

SECTION A: COMPULSORY

1. Figure I shows a design for a wire frame fire screen. Copy the figure full size, using geometrical methods for spacing the vertical wires equally and a compass to mark the position of the wires which are inclined at 30^0. (10 marks)

2. The pattern in figure 2 is made up of interlacing equilateral triangles. Draw the figure full size to the dimensions shown. (10 marks)

3. Figure 3 shows the bottom half of a regular octagonal bearing washer. Draw the shape showing the depth D and width W. (10 marks)

SECTION B (ANSWER ANY TWO QUESTIONS FROM THIS SECTION

4. Copy figure 4 full size and dimension it accordingly. (20 marks)

5. Figure 5 shows an irregular pentagon. Copy the figure full size and convert it into a square of equivalent area. (20 marks)

6. The major and minor axis of an ellipse are 130 and 100 respectively. Construct the ellipse using the foci method. (20 marks)