



TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Engineering &
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
DIPLOMA IN BUILDING & CIVIL ENGINEERING (CBCE 13M)

EBC 2101: ENGINEERING DRAWING I

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: OCTOBER 2013
TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

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 **THREE** printed pages

Question One

a) (i) Briefly explain “engineering drawing as a means of communication.” (2 marks)

(ii) Differentiate between:

- Artistic Drawing
 - Technical drawing
- (4 marks)

b) (i) Briefly explain the **FOUR** objectives in engineering drawing. (8 marks)

(ii) With the aid of sketches, explain how to obtain an A4 paper size from a A1 paper size. (2 marks)

(iii) Describe any **TWO** the following types of lines:

- Outline
 - Construction line
 - Hidden Detail line
- (4 marks)

Question Two

Using the concentric circles method, draw an ellipse where major and minor axes are 118mm and 60mm respectively. (20 marks)

Question Three

A circle of 46 mm diameter is resting on a flat horizontal surface. Plot the locus of the point of contact between the circle is allowed to roll for one complete convolution without slipping. Name the locus. (20 marks)

Question Four

Figure 1 below shows a ladder leaning against a vertical wall. The foot of the ladder is on a horizontal base. If the foot of the ladder is allowed to slip in the direction shown, plot the locus of the mid-point of the ladder as the ladder slips to the horizontal position (20 marks)

Figure 1

Question Five

Figure 2 shows an upright cone cut by a cutting Y-Y. Draw the outline of the cut section. Name the shape so produced. **(20 marks)**

figure 2