



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING  
**CERTIFICATE IN BUILDING & CIVIL ENGINEERING (CBCE 13S)**

EME 1150: ENGINEERING DRAWING (BUILDING)

**END OF SEMESTER EXAMINATION**

SERIES: APRIL 2014

**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 of the **FIVE** questions

All questions carry equal marks

Maximum marks for each part of a question are as shown  
This paper consists of **THREE** printed pages

### Question One

The figure below shows the elevation of a cone of base diameter 50mm. Draw:

- (i) The plan view
- (ii) Development of the surface.

**(20 marks)**

Figure 1

### Question Two

The figure below shows the elevation of a cone with a hexagon base which has been cut by plane XX at an angle of  $30^\circ$  cutting the axis of the cone at mid point. Draw the following:

- a) Section plan
- b) END elevation in the direction shown by the arrow
- c) True shape of the section

Figure 2

**(20 marks)**

### Question Three

A cylinder 50mm diameter and 70mm height is completely penetrated by another of 40mm diameter 70mm horizontally both axis intersect and bisect each other draw the plan, front elevation and end elevation of the curves and clearly show the intersection **(20 marks)**

**Question Four**

Using a table format, draw and describe the following signs and symbols used in building drawing:

- a) Ground level
- b) Plain concrete
- c) Reinforced concrete
- d) HARD CORE FILLING
- e) Door symbol
- f) Stone walling
- g) Window symbol
- h) Wood structure symbol

**(20 marks)**

**Question Five**

Figure 1 shows the design of a one bedroom house using the scale of 1:50, draw the floor plan and dimension it indicating the door and windows: **(20 marks)**

Store

Assume any other information not given