



# Technical University of Mombasa

Faculty of Engineering and Technology

**DEPARTMENT OF BUILDING AND CIVIL ENGINEERING**  
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF  
SCIENCE IN CIVIL ENGINEERING  
**BSCE**

**ECE 2216 : ENGINEERING DRAWING IV**

SEMESTER EXAMINATION

APRIL 2014 SERIES

2 HOURS

Instructions to candidates:

This paper consists of **FIVE** questions

Answer question **ONE** (compulsory) and any other **TWO** questions

**QUESTION ONE**

- a) Illustrate the size and relationship of paper sizes A0,A1, A2, A3, A0 A4 (**5 marks**)
- b) The line plan of a residential house having one bedroom is shown in figure 1.

Some of the specifications are:

Level of plinth above ground : 450mm

Wall thickness    300mm

Windows:        W       =        1.0m x 1.2m

                             D       =        1.0m x 2.0m

                             D1       =        0.8m x 2.0m

Ventilators        V       =        0.8m x 0.6m

Draw at 1:50 scale

(i)        Plan of the building at window sill level    **(15 marks)**

(ii)        The front elevation . please note the roof is flat, parapet, walling of 350mm

**(10 marks)**

## **QUESTION TWO**

Draw a cross section of the building at a scale of 1:50, naming all the main parts from foundation to roof slab. **(20 marks)**

## **QUESTION THREE**

- a) There are several types of stair cases. Illustrate five **(5 marks)**
- b) Figure 2 is plan of a stair case. Draw section A-B, roof is flat. **(15 marks)**

## **QUESTION FOUR**

Figure three is a plan of a septic tank. Draw section X-X at 1:20 **(20 marks)**

### **QUESTION FIVE**

- a) (i) Define the chamfer command in Auto CAD **(2 marks)**
- (ii) Explain how to chamfer lines joined at end points. The chamfer distance is 500units **(6 marks)**
- b) Define the extend command. **(2 marks)**
- c) (i) Define the trim command and to call the command in Auto CAD **(6 marks)**
- (ii) Briefly describe how to call the command in Auto CAD and seven steps of applying it in command. **(4 marks)**