



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING  
UNIVERSITY EXAMINATION FOR BACHELOR OF SCIENCE IN CIVIL  
ENGINEERING (BSCE)

ECE 2102: ENGINEERING DRAWING II

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 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 question **ONE (COMPULSORY)** in section **A** and any other **TWO** questions from section **B**

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

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**SECTION A**

**Question One (Compulsory)**

Redraw the isometric projection of the solid shown below. Convert the isometric view into orthogonal projection of all three views in third angle orthographic projection. **(30 marks)**

## **SECTION B (Attempt any TWO questions)**

### **Question Two**

A square prism of base side 60mm rests on one of its ends on the HP with the base sides equally inclined to the VP. It is penetrated fully by another square prism of base side 45mm with the base side equally inclined to the HP. The axes intersect at right angles. The axis of the penetrating prism is parallel to both the HP and VP. Draw the projections of the prisms and show the lines of intersection.

### **Question Three**

A pentagonal prism of side of base 20mm and height 50mm stands vertically on its base with a rectangular face perpendicular to V.P cutting plane perpendicular to V.P and inclined at  $60^\circ$  to the axis passes through the edges of the top base of the prism. Develop the lower portion of the lateral surface of the prism.

### **Question Four**

A cylinder of base diameter 40mm and height 60mm rests on its base on H.P. It is cut by a plane perpendicular to VP and inclined at  $30^\circ$  to HP and meets the axis at a distance 30mm from the base. Draw the front view, sectional top view and the true shape of section.

### **Question Five**

A square prism 30mm side and 50mm long is lying on the ground plane on one of its rectangular faces in such a way that one of its square faces is parallel to 10mm behind the picture plane. The station point is located the ground plane. The central plane is 45mm away from the axis of the prism towards the left. Draw the perspective of the prism.