



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR DECREE IN:

BACHELOR OF SCIENCE IN CIVIL ENGINEERING (BSCE 14SA 14S B)

ECE 2114: ENGINEERING DRAWING II

END OF SEMESTER EXAMINATION

SERIES: APRIL 2015

TIME ALLOWED: 3 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Pocket Calculator*

This paper consists of **FIVE** questions. Answer question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

Use neat, large and well labeled diagrams where required

This paper consists of **THREE** printed pages

Question One (Compulsory)

The figure 1 shows the details of a pulley unit in first orthographic angle projection. The pulley is held by means of a shaft with washer at face X and secured by a collar and pin at face Y of the body. Draw full size and in first angle projection the following views of the assembly.

a) Plan view

(10 marks)

- b) Sectional front elevation on plain PP (10 marks)
c) End elevation in the direction of arrow N (10 marks)

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 the VP. Draw the three projections of the prisms and show the lines of intersection (20 marks)

Question Three

Draw the plan, front view and development of the lateral surface of a pentagonal prism the front view of which is shown in figure 2 below with a side of the base parallel to the VP (20 marks)

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Question Four

A square pyramid of base edge 40mm and altitude 50mm rests with its base on the ground plane such that all the edges of the base are equally inclined to the PP. One of the corners of the base is touching the PP. The station point is 60mm in front of the PP, 80mm above the ground plane and lies in a central plane which passes through the axis of the pyramid. Draw the perspective projection. (20 marks)

Question Five

The figure 3 shows the pictorial view of an object. Draw the following views in 1st Angle orthographic projection:

- (i) Sectional front view A-A
(ii) R.H.S view
(iii) Top view (20 marks)