



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING & CIVIL ENGINEERING
UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN CIVIL ENGINEERING
ECE 2114 : ENGINEERING DRAWING II
SPECIAL SUPPLEMENTARY EXAMINATION
SERIES: SEPT. 2017
TIME: 3 HOURS

Instructions to Candidates

You should have the following for this examination

- Answer Booklet, examination pass and student ID
- Drawing instruments.

This paper consists of five questions.

Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

QUESTION ONE (COMPULSORY)

- a) With the aid of a neat sketch, differentiate between TEN terminologies used in perspective projections. (10 Marks)
- b) Using the visual ray method, draw a perspective view of a square pyramid having a base of 40mm sides and 60mm long axis, resting on its base in the ground plane with its axis at a distance of 40mm behind the picture plane and an edge of base right to the axis inclined at 60° to it. The station point is 50mm in front of the picture plane, 90mm above the ground plane and lies in a central plane which is 50mm towards the right of the axis. (20 Marks)

ATTEMPT ANY TWO QUESTIONS

QUESTION TWO

A cylinder of diameter 75mm and height 125mm stand vertically on its base on the ground. It is fully penetrated centrally by a cylinder 50mm diameter and 125mm whose axis makes 30° with the axis of the vertical pipe. Draw the three projections, showing the curves of intersection. (20 Marks)

QUESTION THREE

A cube of 50mm long edges is resting on the ground with a vertical face inclined at 30° to the V.P. It is cut by a section plane inclined at 30° to the H.P. and passing through a point on the axis, 38mm above the ground. Draw the sectional top view, true shape of the section and the development of the surfaces of the remaining portion of the cube. (20 Marks)

QUESTION FOUR

A square prism having a base with a 40mm side and 60mm long axis is resting on its resting on its rectangular face on the GP with axis inclined at 30° to PP. a side of base nearer to the PP is 20mm behind it and 20mm to the left of the station point. The station point is 80mm in front of PP and 70mm above GP. Draw its perspective view using the varnishing point method. (20 Marks)

QUESTION FIVE

A vertical cylinder of 70mm diameter penetrates another of 95mm diameter, their axes being at right angles to each other but 10mm apart. Draw the projections of the curves of intersection on a plane parallel to the axes of the cylinders. (20 Marks)