



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN BUILDING & CIVIL ENGINEERING

ECE 2114: ENGINEERING DRAWING II

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- Answer Booklet
- Scientific 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

This paper consists of **THREE** printed pages

Question One (Compulsory)

- a) The figure below is a pictorial view of the sides of a stand to be made from pry wood. Construct a full-scale development of each of the four parts of the stand. **(10 marks)**

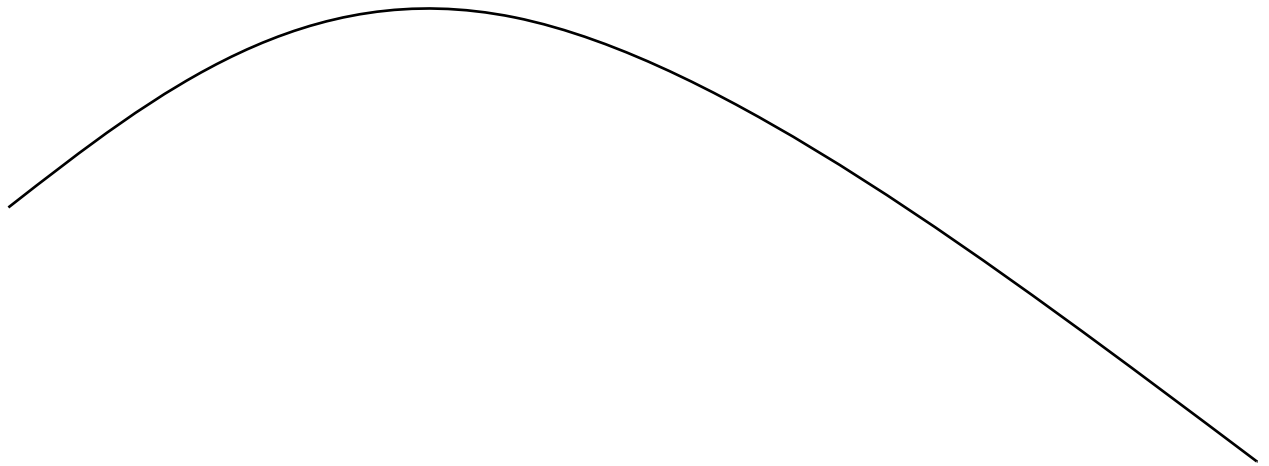
- b) The figure below is a pictorial drawing of a funnel to be made from tin plate. It consist of three parts:
- (i) The tunnel in the form of a truncated cone
 - (ii) A lipping in the form of a cylinder.
 - (iii) A spout in the form of another truncated cone.

Figure2

Construct a full size development for each part of the tunnel. You will find difficulty in constructing a development for the spout if you try to treat it as a cone. It is better to assume the spout is made up from a series of triangles and construct the development by triangulation. **(20 marks)**

Question Two

- a) A pictorial drawing below is a switch contact. From it:
- (i) Construct an accurate three-view third angle orthographic projection of the contact.
 - (ii) Draw the isometric projection of the contact.
 - (iii) Give the contact full dimension in the scale of 1:100
 - (iv) Draw all necessary hidden details.



- Overall height 70mm
- All measurements are in millimeter

(20 marks)

Question Three

- a) A front view and plan of a cylinder are given below which are of different diameter meeting or intersection at an angle of 45° . The line of intersection between the two cylinders in the front view has not been included. Copy the views in full size and add the line of intersection accurately constructed and hence draw the hole outline for intersection.

60°

- b) Differentiate between Axonometric drawing and Isometric drawing.

(5 marks)

Question Four

Give **THREE** differences between first angle orthographic projection and third angle orthographic projection. Use horizontal and vertical planes to give a proper distinction between the two orthographic projections.

(20 marks)

Question Five

The figure below shows a first angle orthographic projection. Draw a complete projection, section through section A – A and lastly an axonometric projection of the same. **(20 marks)**

A