Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination, 2014

Design & Communication Graphics

Ordinary Level

Section A (60 marks)

Wednesday, 18 June
Afternoon, 2:00 - 5:00

This examination is divided into three sections:

SECTION A	(Core - Short Questions)
SECTION B	(Core - Long Questions)
SECTION C	(Applied Graphics - Long Questions)

SECTION A

- Four questions are presented.
- Answer **any three** on the A3 sheet overleaf.
- All questions in Section A carry **20 marks** each.

SECTION B

- Three questions are presented.
- Answer **any two** on drawing paper.
- All questions in Section B carry **45 marks** each.

SECTION C

- Five questions are presented.
- Answer **any two** (i.e. the options you have studied) on drawing paper.
- All questions in Section C carry **45 marks** each.

General Instructions:

- *Construction lines must be shown on all solutions.*
- *Write the question number distinctly on the answer paper in Sections B and C.*
- *Work on one side of the drawing paper only.*
- *All dimensions are given in metres or millimetres.*
- *Write your Examination number in the box below and on all other sheets used.*

Examination Number:

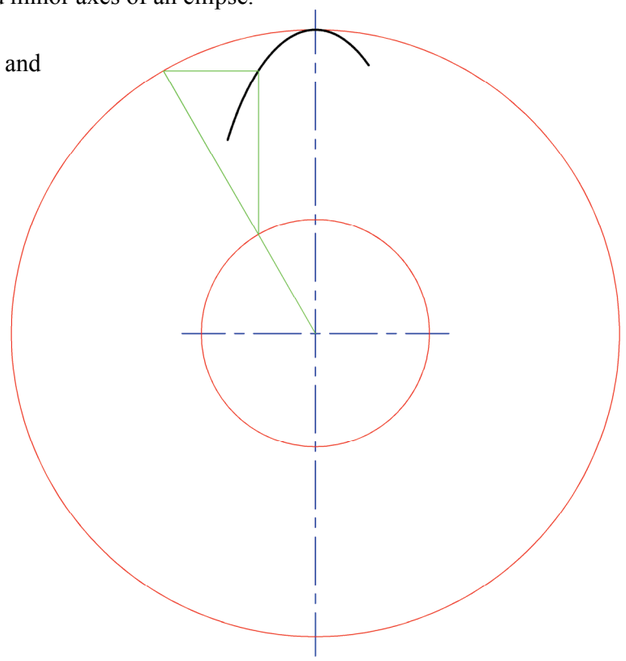
SECTION A - Core - Answer **any three** of the questions on this A3 sheet

A-1. The 3D graphic below shows a pair of earrings based on elliptical shapes.

The drawing on the right shows the major and minor axes of an ellipse.
A portion of the curve is already drawn.

(a) Locate the remaining points on the curve and draw the ellipse.

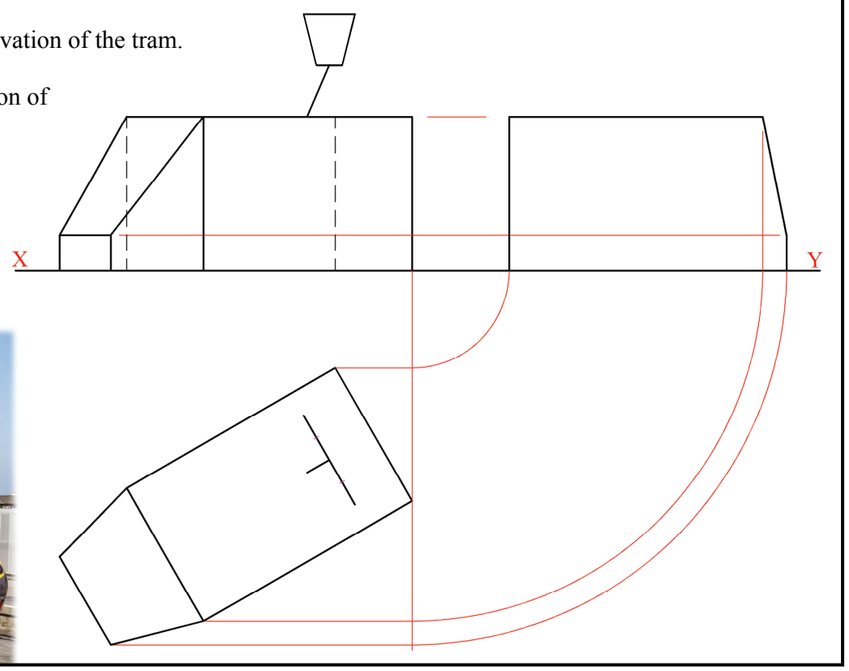
(b) Locate the focal points of the ellipse.



A-2. The 3D graphic below shows one section of a *Luas* tram. The plan, elevation and partially completed end elevation of the outline of the tram are shown on the right.

(a) Complete the end elevation of the tram.

(b) Draw the end elevation of the power supply connector on the top of the tram.

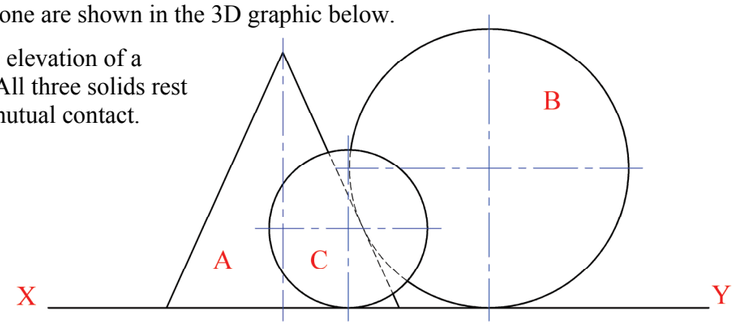


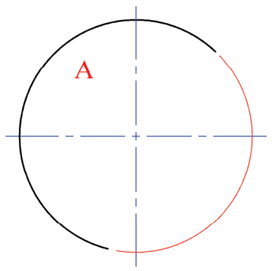
A-3. Toys in the form of spheres and a cone are shown in the 3D graphic below.

The drawing on the right shows the elevation of a cone **A** and two spheres, **B** and **C**. All three solids rest on the horizontal plane and are in mutual contact.
The plan of cone **A** is also shown.

(a) Draw the plan of sphere **B**.

(b) Draw the plan of sphere **C**.

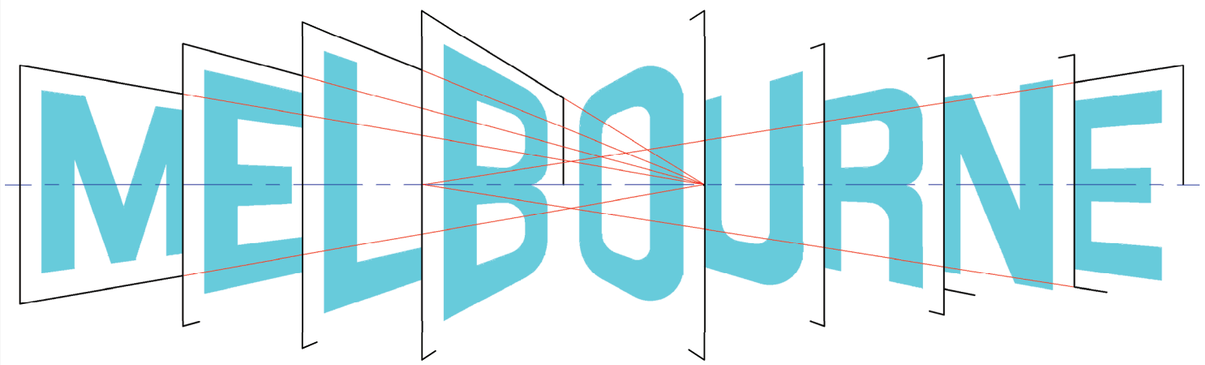




A-4. The 3D graphic on the right shows the "MELBOURNE" logo displayed on a billboard during the *Australian Open* tennis championship.
The logo is designed to look like pages from a book.

The partially completed drawing below shows how the logo is constructed using two vanishing points.

Complete the drawing.



This examination paper must be returned at the end of the Examination – You must include your Examination Number on the front cover

This Contour Map is part of Section C and should only be used for the answering of the Geologic Geometry Option (Question C-1).

(Scale 1:1000)