



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination, 2012

Design & Communication Graphics
Ordinary Level

Section A (60 marks)

Wednesday, 20 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.*

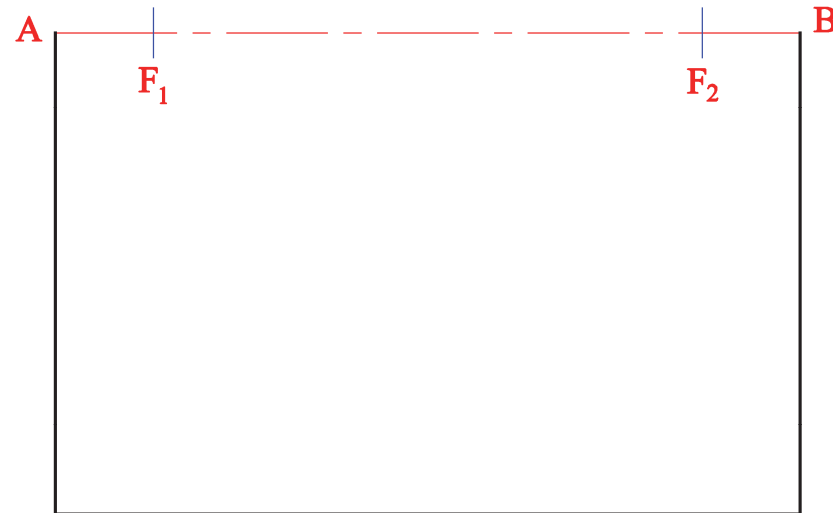
Examination Number:

SECTION A - Core - Answer Any Three of the questions on this A3 sheet

A-1. The 3D graphic below shows a garage door. The top of the door is in the shape of a semi-ellipse.

In the drawing of the door on the right, **AB** is the major axis of the ellipse. The focal points are also shown.

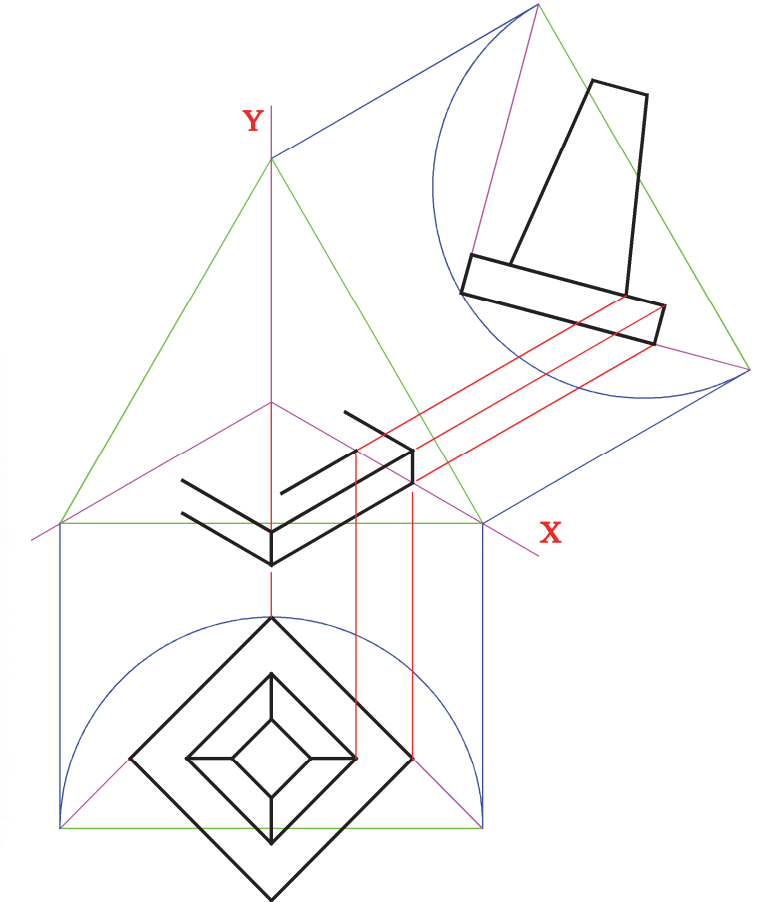
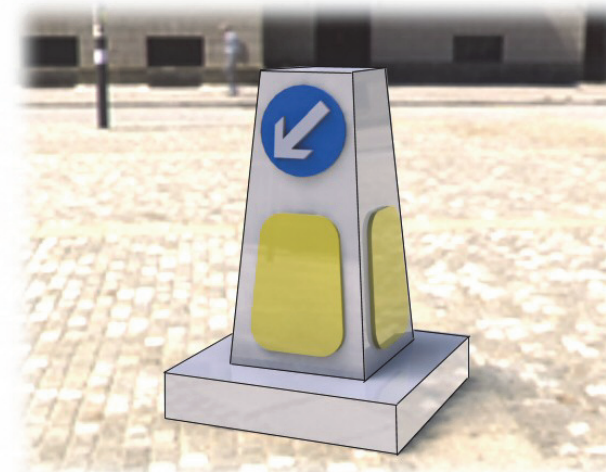
- (a) Locate the minor axis of the ellipse.
- (b) Draw the semi-ellipse.



A-3. The 3D graphic below shows a traffic bollard.

A set of isometric axes and a partially completed outline drawing of the bollard are shown on the right. The elevation and plan of the bollard have been positioned relative to the axes as shown.

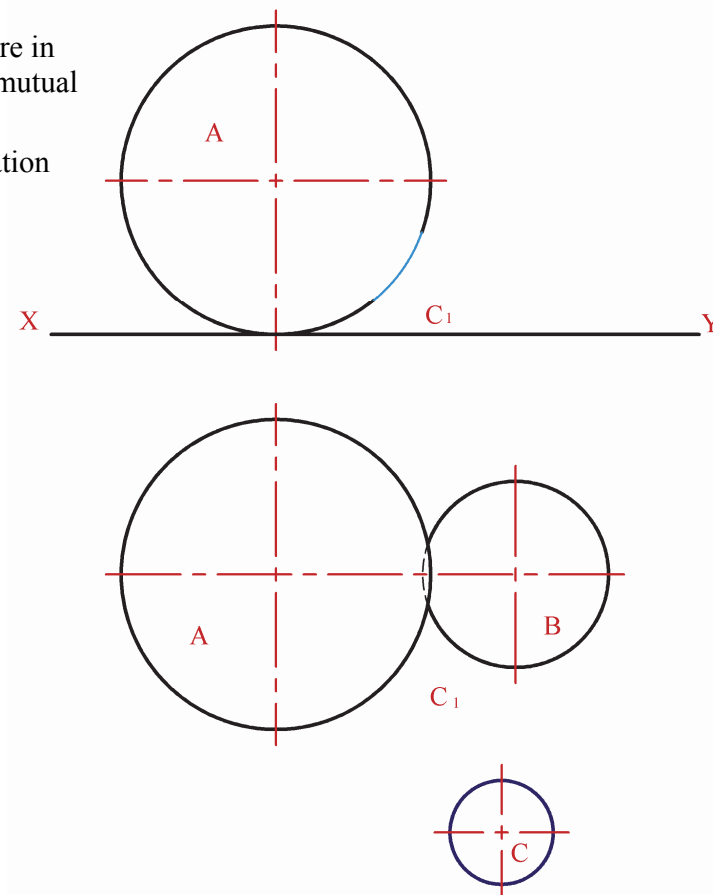
Complete the axonometric projection.



A-2. The 3D graphic below shows a garden water feature in which three spheres rest on the ground and are in mutual contact.

The drawing on the right shows the plan and elevation of sphere **A**. The plan of sphere **B** is also shown.

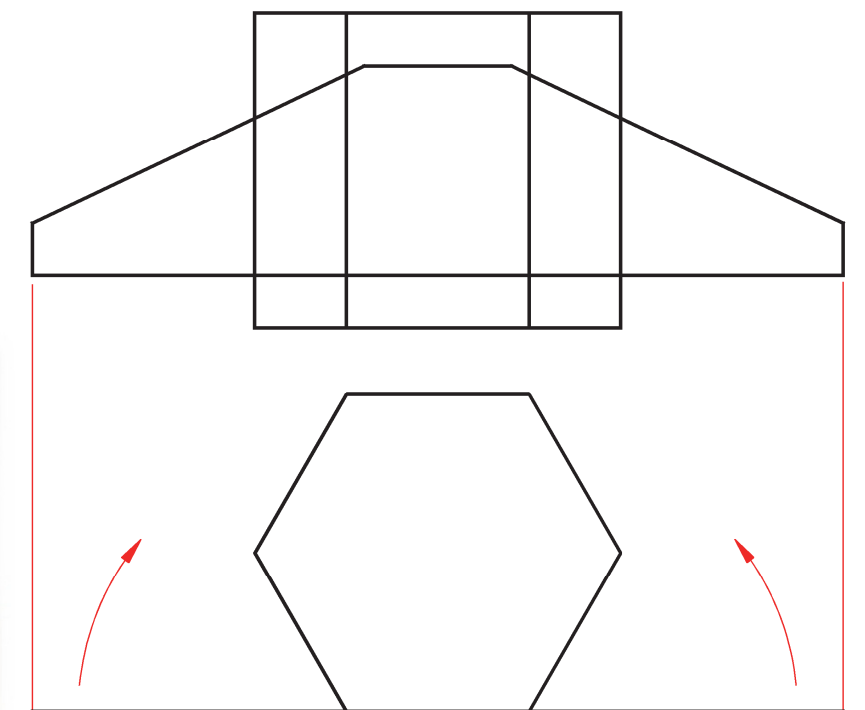
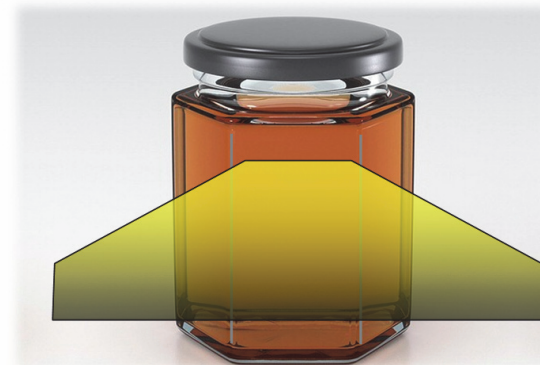
- (a) Draw the elevation of sphere **B**.
- (b) Draw the plan and elevation of the third Sphere, **C** (shown in blue) when it has been moved into position **C₁** and is in contact with the given spheres **A** and **B**.



A-4. The 3D graphic below shows a jar of honey and a label which is to be wrapped around it.

The drawing on the right shows the plan and elevation of the label and the hexagonal portion of the glass jar.

Complete the elevation showing the label in the wrapped position.



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

