



Leaving Certificate Examination, 2012

Design & Communication Graphics
Higher 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:

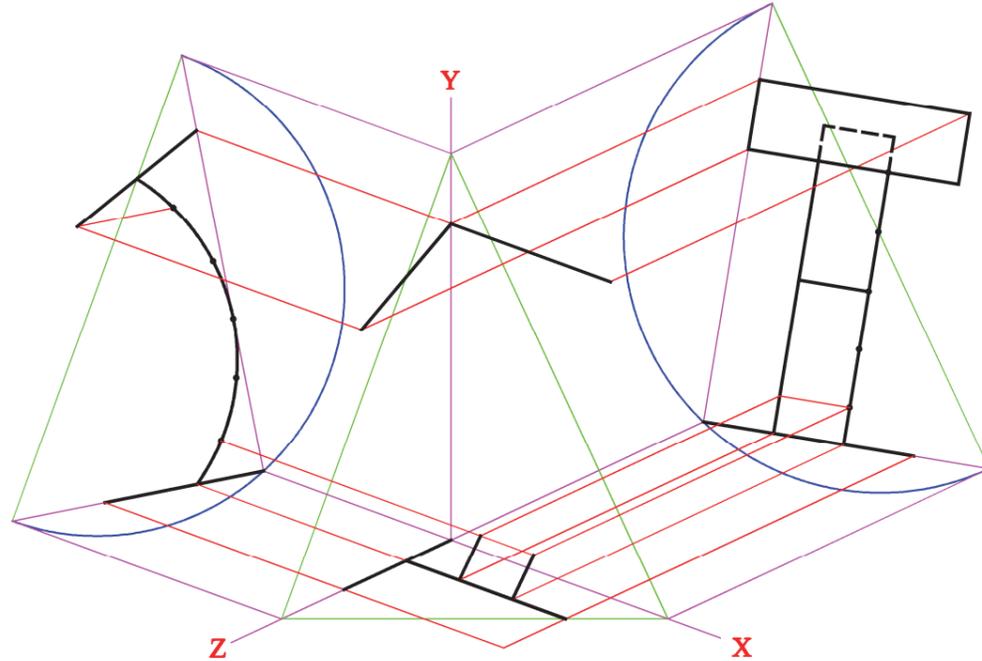
- *Construction lines must be shown on all solutions.*
- *Write the question number distinctly on the answer paper in Sections B and C.*
- *Work on one side of the drawing paper only.*
- *All dimensions are given in metres or millimetres.*
- *Write your Examination number in the box below and on all 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 lectern. The drawing on the right shows an incomplete trimetric projection of a similar lectern using the axonometric axes method.

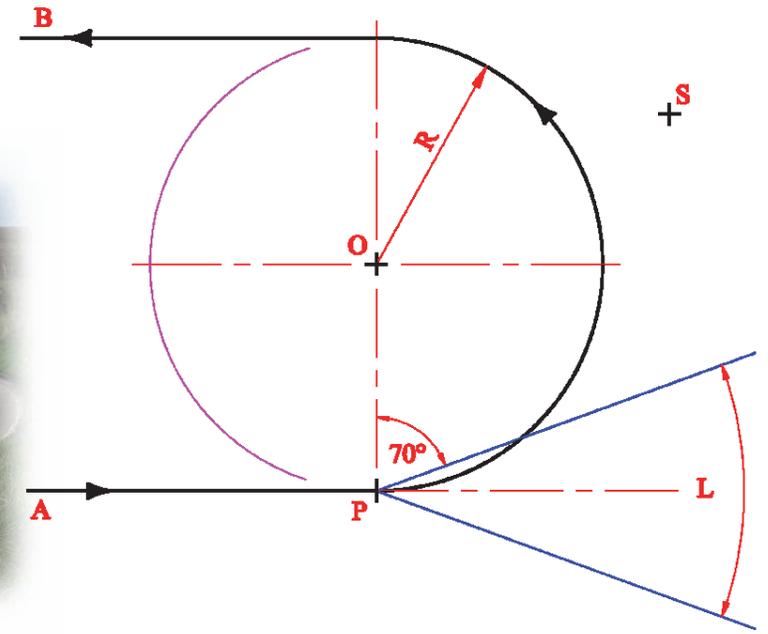
- (a) Complete the axonometric projection of the lectern.
- (b) Determine and indicate the true diagonal length of the sloping rectangular top.



A-3. The careful positioning of road signs is of particular importance on dangerous bends, as shown in the image below. This is to ensure that they are clearly visible by day and also by night.

The drawing on the right below shows the plan view of a hairpin (U-shaped) bend. Point **P** shows the position of a car travelling along the road from **A** to **B** at night. The angle **L** represents the beam of light from the headlights and **S** shows the position of a road sign.

Determine the position of the car, on the roadway, when the sign becomes illuminated initially.

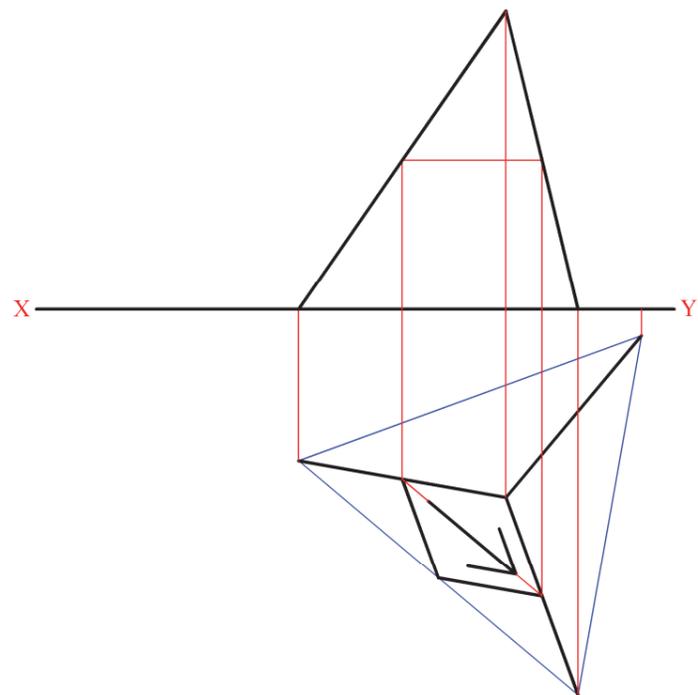
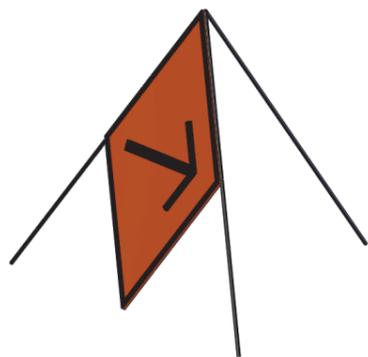


A-2. The 3D graphic below shows a road sign and its supporting frame.

The supporting frame is in the form of a regular tetrahedron.

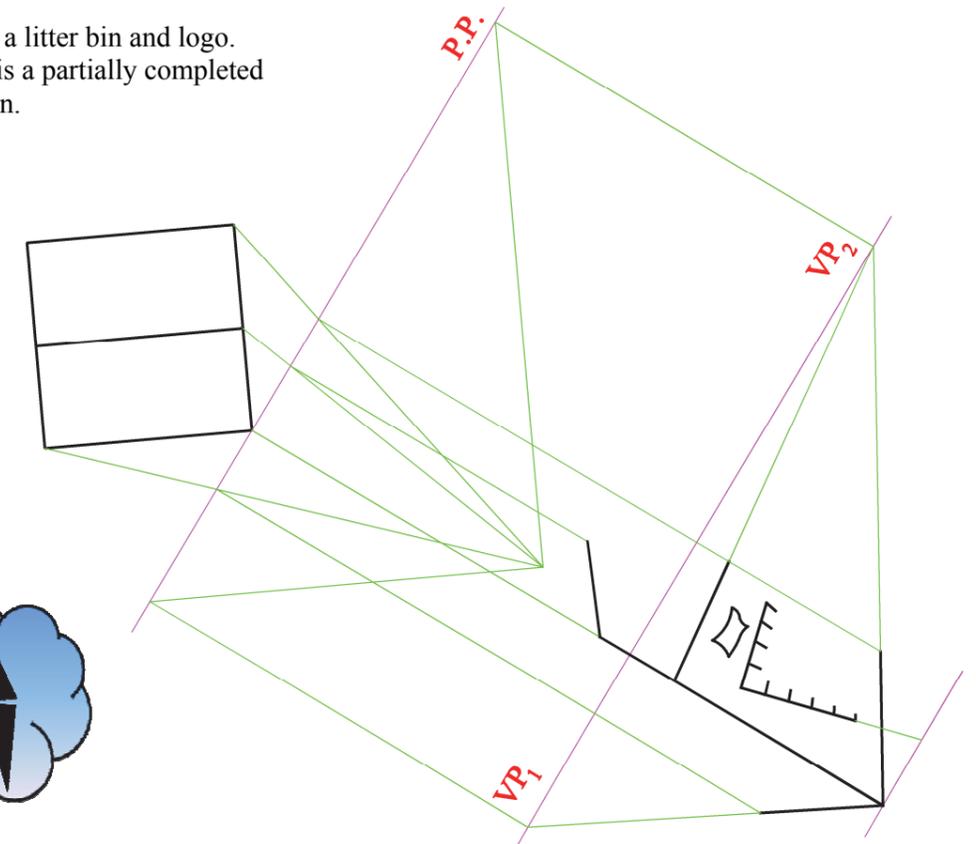
The drawing on the right shows the plan and incomplete elevation of the structure.

- (a) Complete the elevation.
(Include the directional arrow.)
- (b) Determine the true shape of the parallelogram shaped road sign.



A-4. The graphic below shows a litter bin and logo. The drawing on the right is a partially completed perspective view of the bin.

Complete the perspective drawing of the bin, using an auxiliary vanishing point for the sloping surfaces.



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

