



**Coimisiún na Scrúduithe Stáit**  
*State Examinations Commission*

*Leaving Certificate Examination, 2010*

***Design & Communication Graphics***  
***Ordinary Level***

***Section A (60 marks)***

**Friday, 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.*

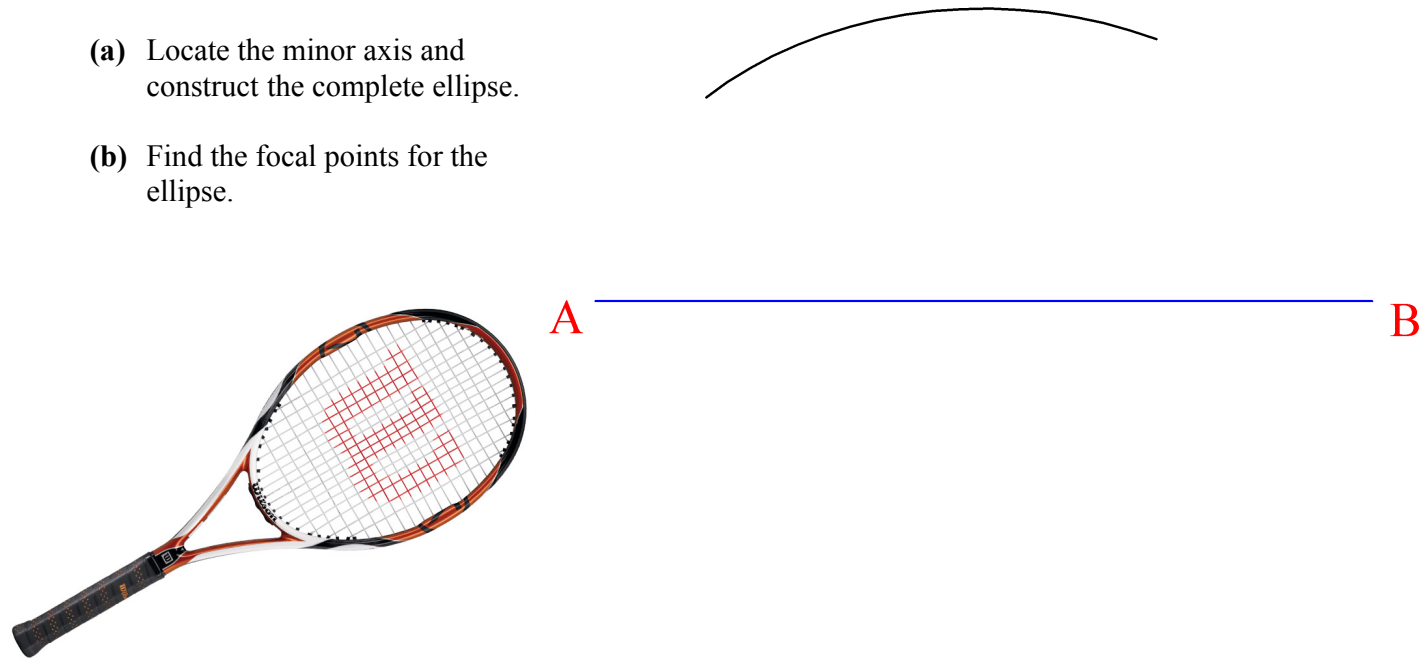
**Examination Number:**

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

**A-1.** The 3D graphic on the left below shows a tennis racket. The head of the racket is an ellipse.

On the drawing on the right, AB is the major axis for the ellipse and a portion of the curve is already drawn.

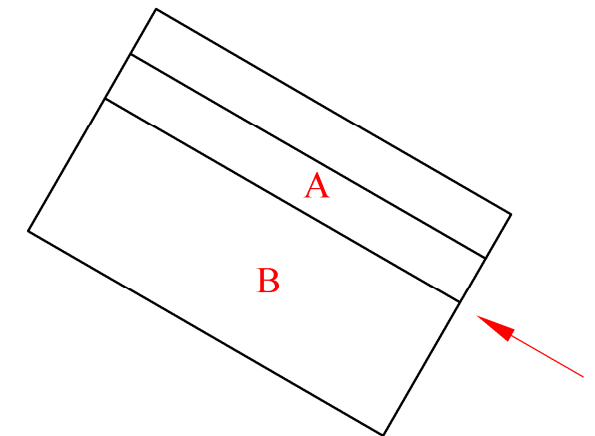
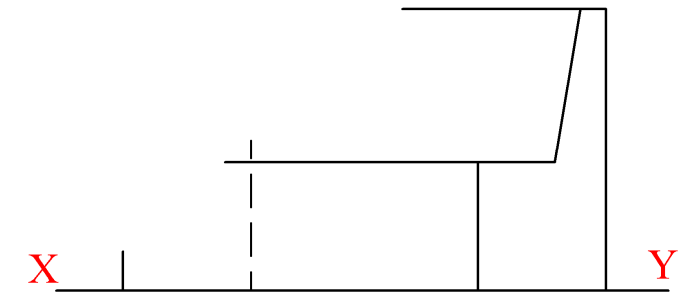
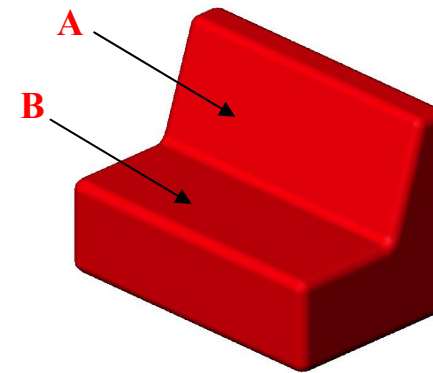
- (a) Locate the minor axis and construct the complete ellipse.
- (b) Find the focal points for the ellipse.



**A-3.** The 3D graphic below shows a modern seat from a hotel lobby.

The plan and incomplete elevation of the seat are shown on the right.

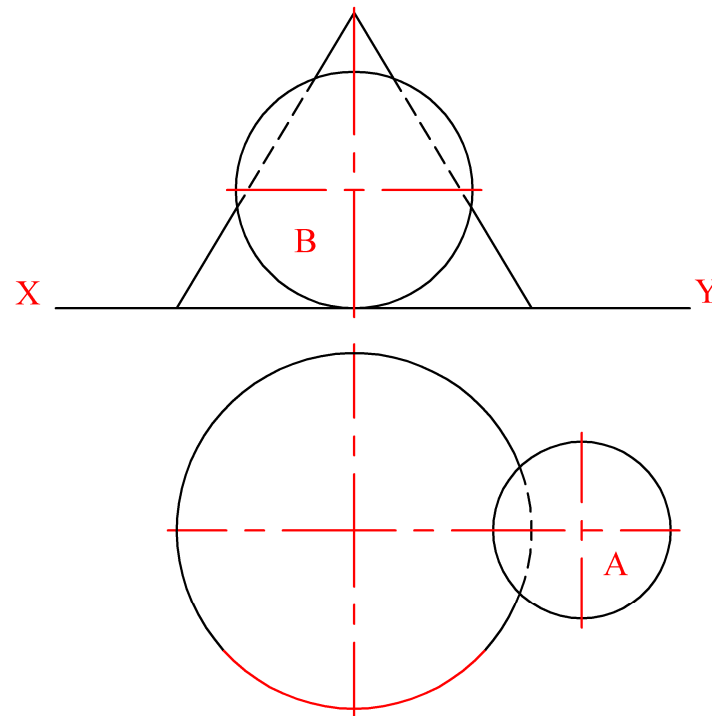
- (a) Complete the elevation.
- (b) Draw an auxiliary view of the seat which will show the true angle between the surfaces A and B.



**A-2.** The 3D graphic below shows a training cone which is in contact with a football (A) and a basketball (B) as shown. The three items rest on the floor.

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

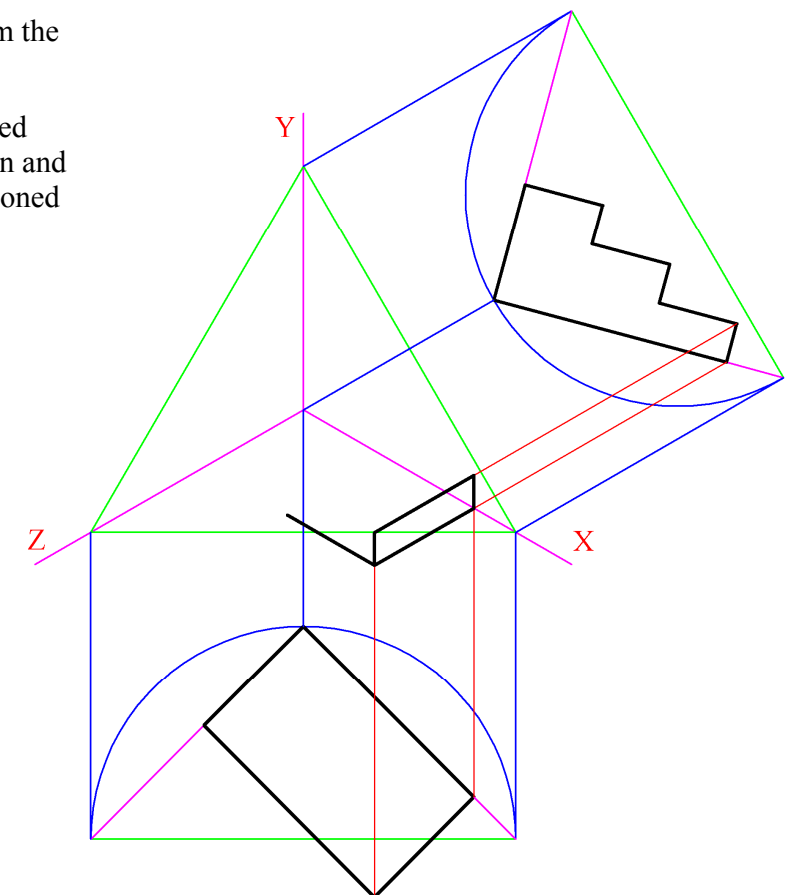
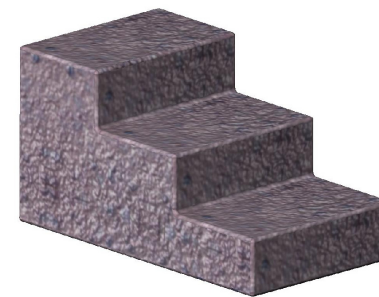
- (a) Draw the elevation of sphere A.
- (b) Draw the plan of sphere B.



**A-4.** The 3D graphic below shows three steps from the entrance to a building.

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

- (a) Complete the plan of the object.
- (b) Complete the axonometric projection.



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

