Junior Certificate Examination, 2014

Technical Graphics
Ordinary Level
Section B
(280 marks)

Monday, 16 June
Morning 9:30 - 12:00

Instructions

(a) Answer any four questions. All questions carry equal marks.

(b) The number of the question must be distinctly marked by the side of each answer.

(c) Work on one side of the answer paper only.

(d) Write your examination number on each sheet of paper used.
1. The graphics show a design for a stapler.

Draw:
(a) An elevation in the direction of arrow A.
(b) A plan projected from the elevation.
(c) Insert any four dimensions.

2. The graphics show the logo for the SUPERUGBY league. The logo is based on circles and on an ellipse as shown.

The curve ABCD is elliptical. AC is the major axis of the ellipse and is 120 mm long. OB is half the minor axis and is 40 mm long.

Draw the given ellipse and complete the logo showing clearly all constructions.
The figure shows the elevation and plan of the initials GTi used by many car companies.

The grid in elevation is made up of 15 mm squares and the thickness in plan is 10 mm.

Draw one of the following views:

(a) An isometric view of the initials.
(b) An oblique view of the initials.

Note: The solution must be presented on standard drawing paper.
The graphics show the design of a logo for a golf society.

(a) Draw the given logo and then locate the points A, O, A1, A2, A3 and P as shown.

(b) Find the image of the given logo under the following transformations:
   (i) From point A to A1 by a translation;
   (ii) From point A1 to A2 by an axial symmetry in the line A-A3;
   (iii) From point A2 to A3 by a central symmetry in the point P.

6. The figure shows a design for a toy hammer.

Draw the given design showing clearly how to find the centres of the circles shown.

Show all construction lines, tangents and points of contact.