Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Certificate Examination, 2010

Technical Graphics
Ordinary Level
Section B
(280 marks)

Monday, 21 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.

SECTION B. Answer **any four** questions. All questions carry equal marks.

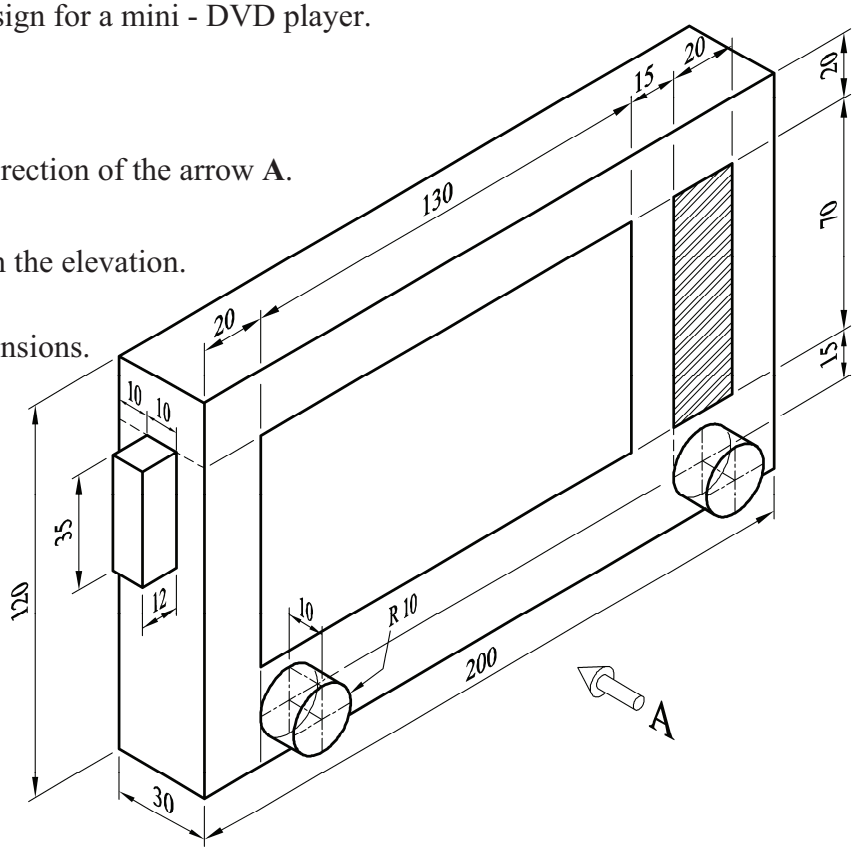
1 The figure shows a design for a mini - DVD player.

Draw:

(a) An elevation in the direction of the arrow **A**.

(b) A plan projected from the elevation.

(c) Insert **any four** dimensions.



2 The figure shows the design of a logo for a telephone company.

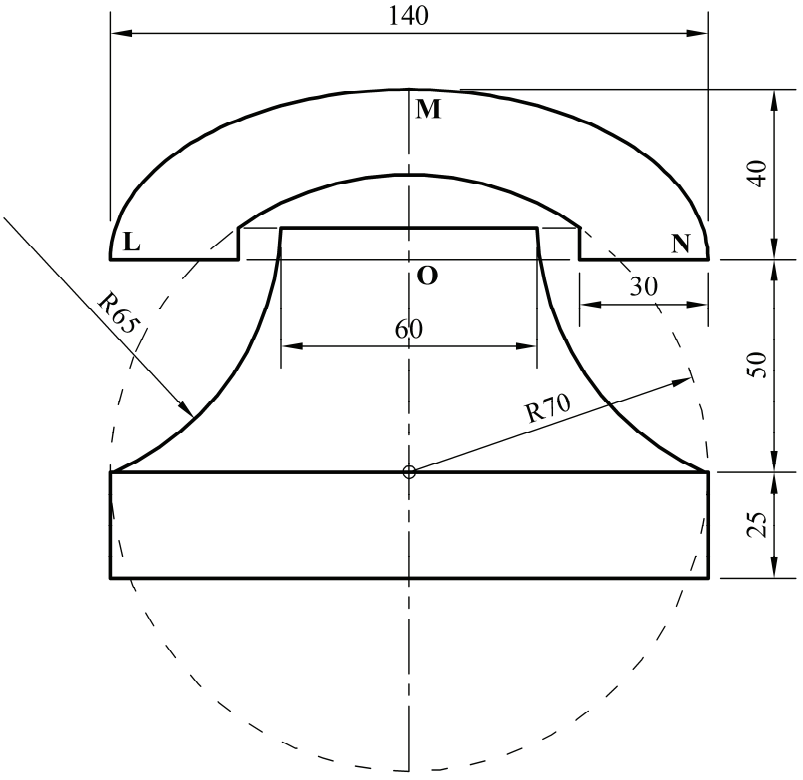
The curve **LMN** is a semi-ellipse as shown.

LN is the major axis and is 140 mm long as shown.

OM is **half** the minor axis and is 40 mm long as shown.

Draw the large circle and then complete the given design.

Show clearly all construction lines.



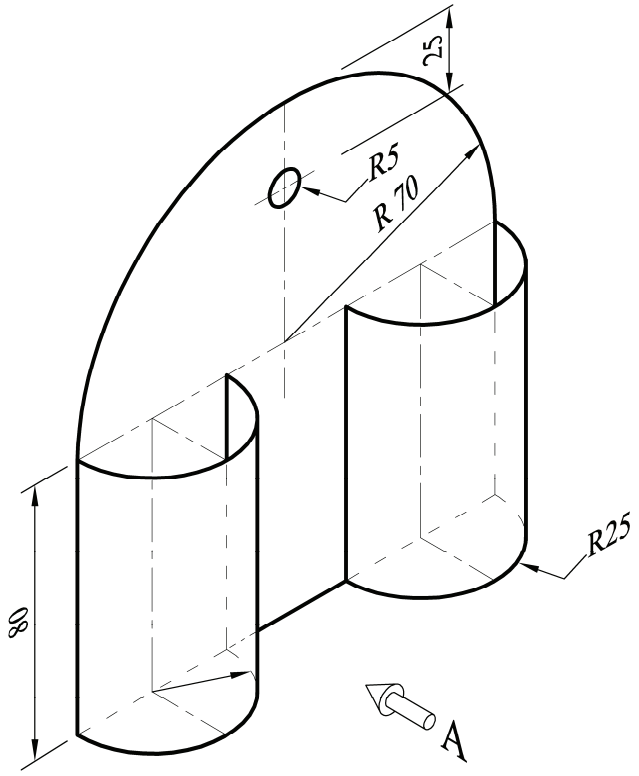
3 The figure shows a design for a scissors holder.

Draw:

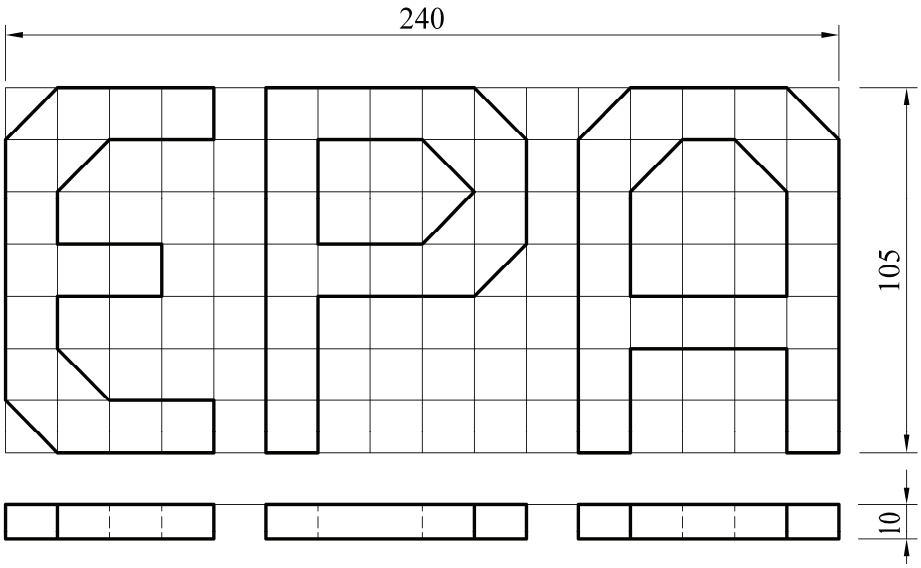
(a) An elevation in the direction of arrow **A**.

(b) A plan projected from the elevation.

(c) The complete **surface development** of the scissors holder.



4



The figure shows the elevation and plan of the initials of the **E**nvironmental **P**rotection **A**gency (**EPA**). The grid in elevation is made up of 15 mm squares and the thickness in plan is 10 mm as shown.

Draw **one** of the following views:

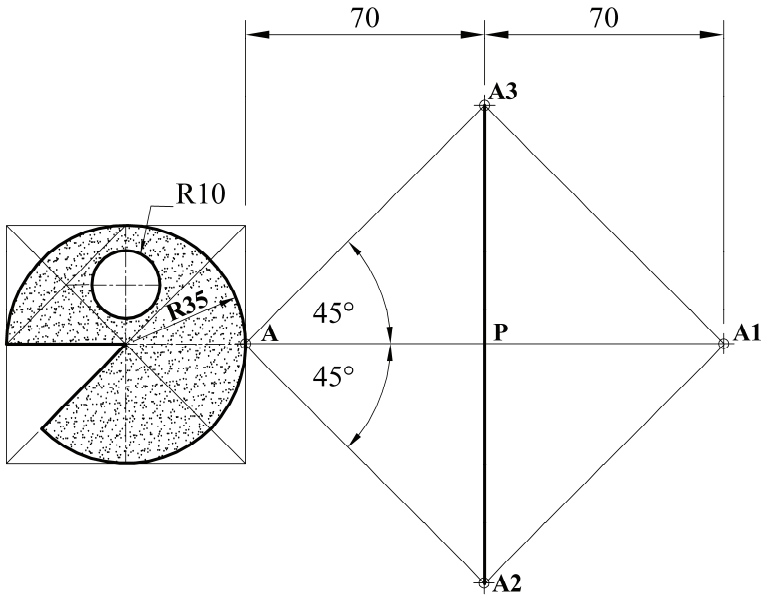
(a) An **isometric** view of the initials

or

(b) An **oblique** view of the initials.

***Note**: The solution must be presented on standard drawing paper.*

5



The figure shows the design of a cartoon face.
Draw the given design and then locate the points **A**, **A1**, **A2**, **A3**, **P** and the line **A2-A3** as shown.

Find the image of the given figure under the following transformations:

(a) From point A to A1 by an **axial symmetry** in the line **A2-A3**
(b) From point A1 to A2 by a **translation**
(c) From point A2 to A3 by a **central symmetry** in the point **P**.

6 The figure shows a design for a safety logo.

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

Show all construction lines and points of contact.