Coimisiún na Scrúduithe Stáit
State Examinations Commission

Junior Certificate Examination 2008

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 drawing paper only.*

(d) *Write your examination number on each sheet of paper used.*

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

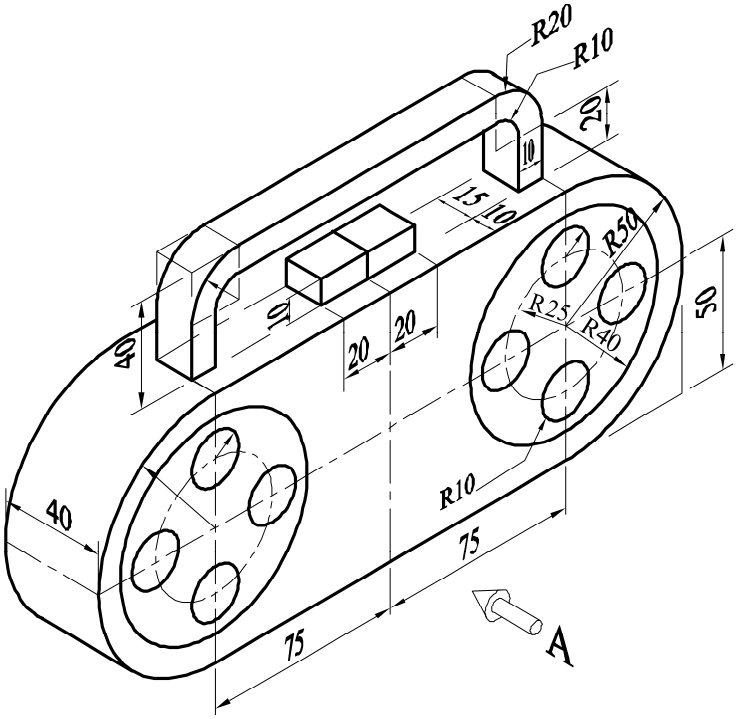
1 The figure shows the outline of a **small radio**.

Draw:

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

(b) A plan projected from the front elevation.

Insert **any four** dimensions.



2

The figure shows the design of a logo for a waiting room.

Draw the two large circles and then complete the given logo.

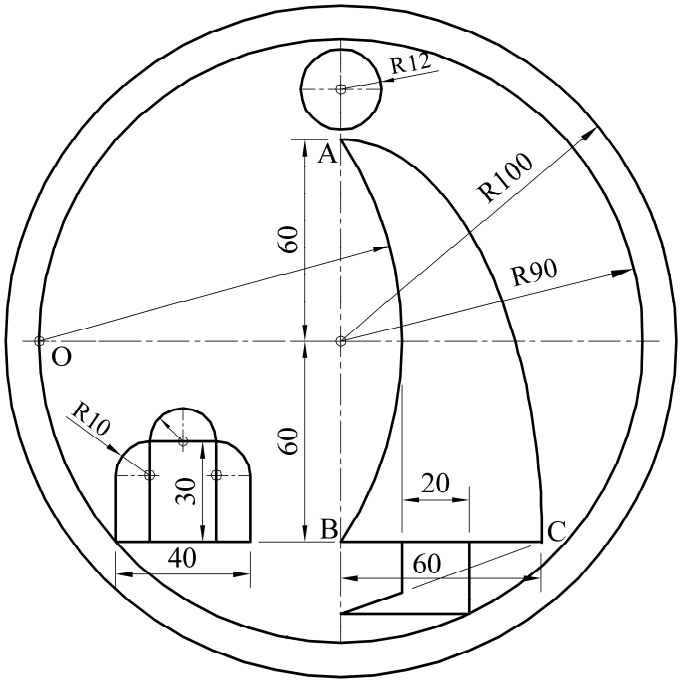
The curve **AC** is a quarter ellipse.

AB is half the **major axis** of the ellipse and is 120 mm long as shown.

BC is half the **minor axis** and is 60 mm long as shown.

The arc **AB** has its centre at **O** as shown.

Show clearly all construction lines.



3

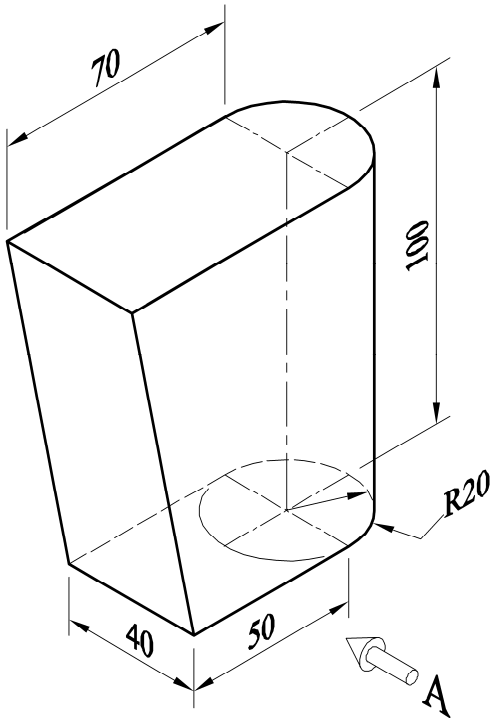
The figure shows the outline of an open container.

Draw:

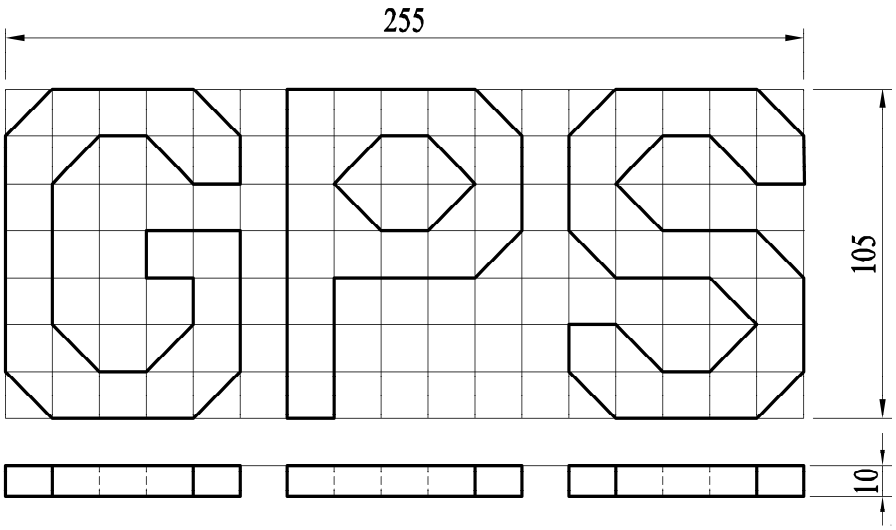
(a) A front elevation looking in the direction of arrow **A**.

(b) A plan projected from the elevation.

(c) The complete **surface development** of the open container.



4



The figure shows the elevation and plan of the initials of a satellite navigation system. The grid in elevation is made up of 15 mm squares.

The width in plan is 10 mm as shown.

Draw **one** of the following views:

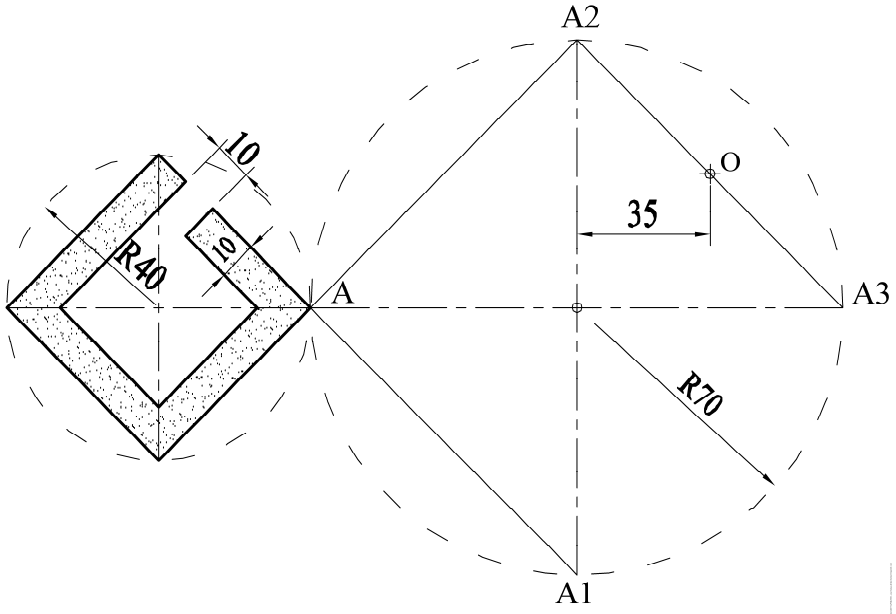
(a) An **isometric** view;

or

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

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

5



Draw the given figure.
Locate the points **A**, **A1**, **A2**, **A3** and **O**.

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

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

6

The figure shows the design of a biscuit jar.

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

Show all construction lines and points of contact.