



Pre-Junior Certificate Examination, 2010

Technical Graphics
Higher Level
Section B
(280 marks)

Time : 2½ Hours

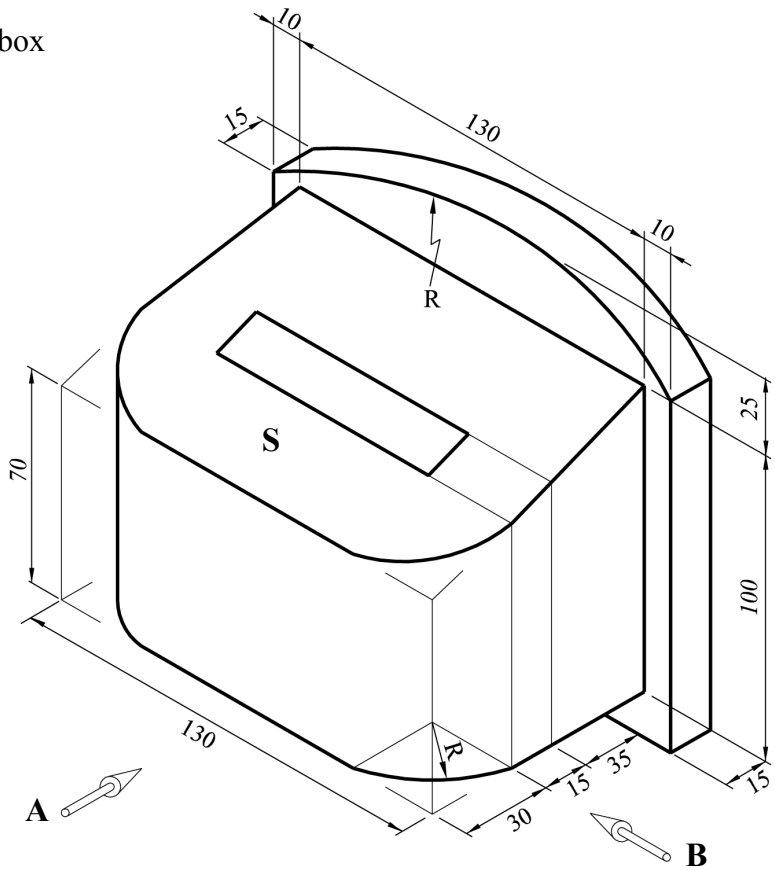
Instructions

- (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 name, your school's name and your teacher's name on each sheet of paper used.*

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

1 A pictorial view of a letter box is shown.

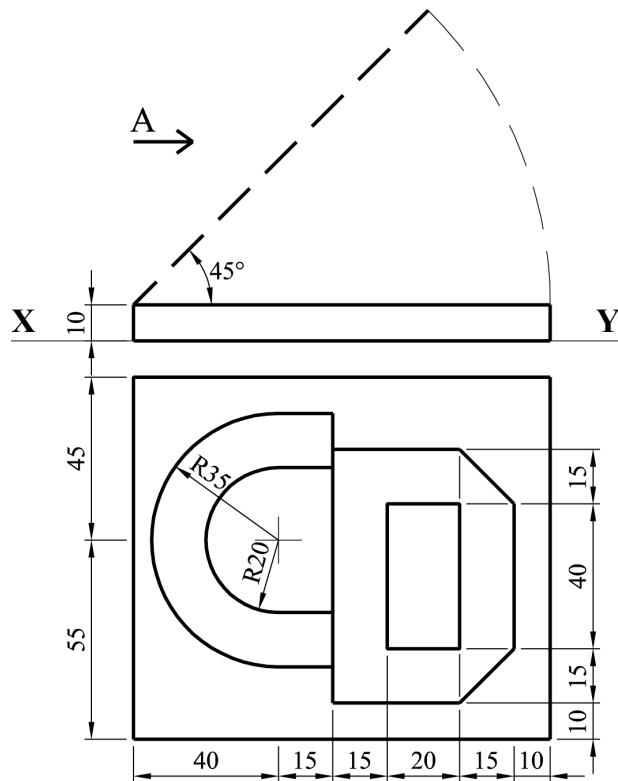
- (a) Draw an elevation in the direction of arrow **A**.
- (b) Project a plan from the elevation.
- (c) Project an end view in the direction of arrow **B**.
- (d) Determine the true shape of the letter slot on surface **S**.



2 The figure shows the plan and elevation of a CD case.

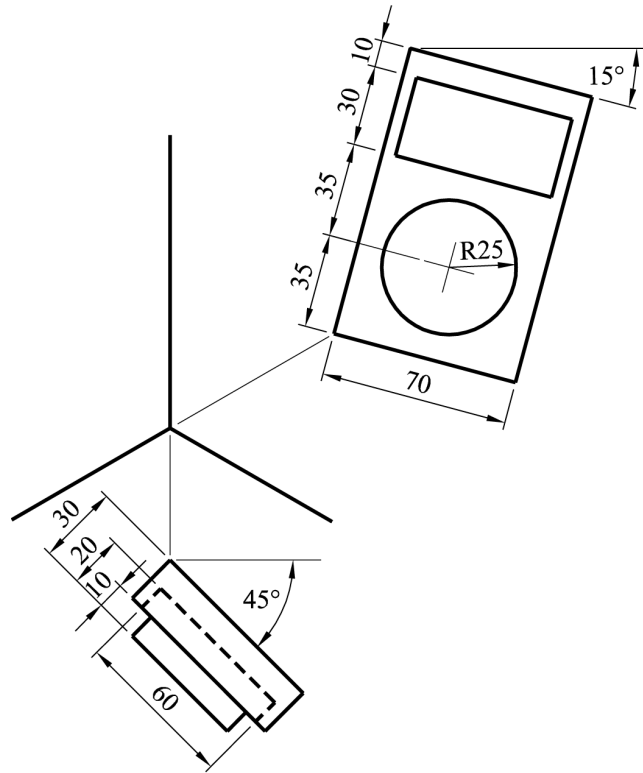
The CD case is in an open position, as indicated by the broken line in elevation.

- (a) Draw the given plan and elevation.
- (b) Project an end view of the CD case in the direction of arrow **A** to show the case in the open position.



3 Shown are the axonometric axes required for the isometric projection of an iPod.

- (a) (i) Draw the axonometric axes as shown.
 (ii) Draw the plan orientated at 45° as shown.
 (iii) Draw the elevation orientated at 15° as shown.
 (iv) Draw the completed axonometric projection of the iPod.

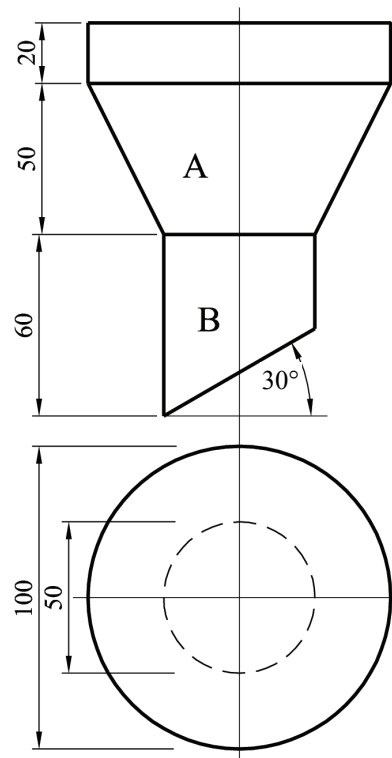


OR

- (b) Draw the completed isometric projection of the iPod using the isometric scale method.

4 The figure shows the elevation and plan of a funnel.

- (a) Draw the given plan and elevation.
 (b) Draw the development of the surface **A** of the funnel.
 (c) Draw the development of the surface **B** of the funnel.

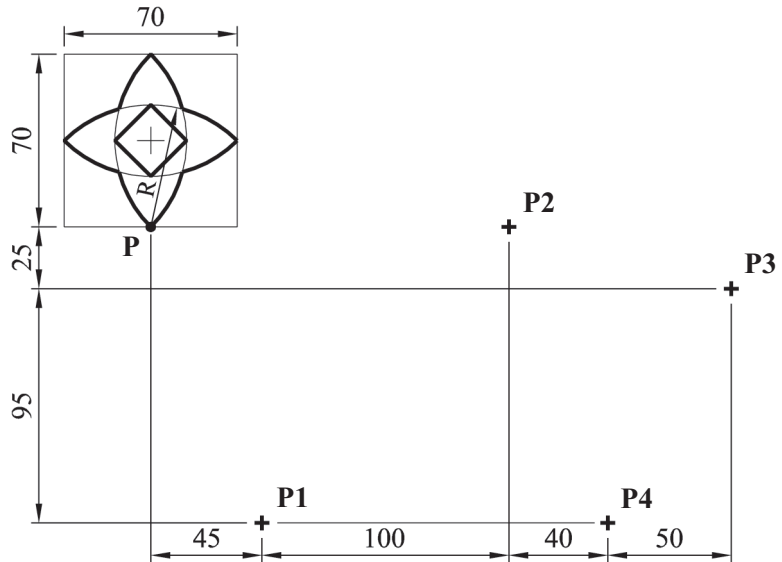


5 The figure shows a logo for a florist.
The figure is subject to transformations in the following order:

- Translation
- Axial symmetry
- Rotation anti-clockwise through 120°
- Central symmetry.

P1, P2, P3 and P4 show the position of point **P** under each of these transformations.

- (a) Draw the given logo.
- (b) Determine the image of the logo under each of these transformations.



6 The figure shows a logo for a rugby club.

The curve **ABC** is a portion of the ellipse shown, with focal points **F** and **F₁**.

The curve **DEG** is a parabola with the vertex at **E**.

The lines **AE** and **EC** are tangents to the ellipse from the point **E**.

Draw the given design showing clearly all constructions.

