

*Pre-Junior Certificate Examination, 2015*

*Technical Graphics*

*Ordinary Level*

*Section B*

*(280 marks)*

*Time : 2½ Hours*

***Instructions***

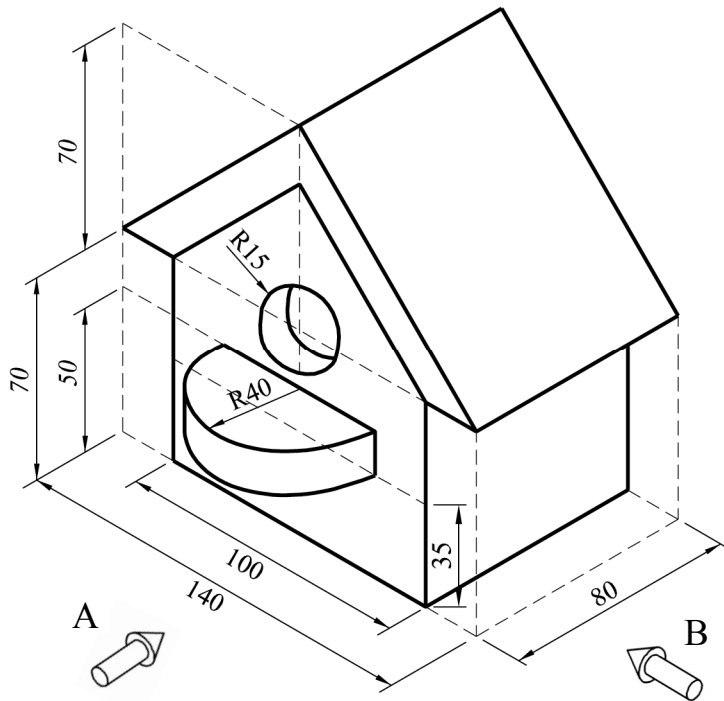
- (a) Answer **any four** questions. All questions carry equal marks.*
- (b) The number of the question must be distinctly marked by the side of each answer.*
- (c) Work on **one side** of the answer paper only.*
- (d) Write your name, your school's name and your teacher's name on each sheet of paper used.*

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

**1.** The figure shows the design for a birdhouse.

Draw:

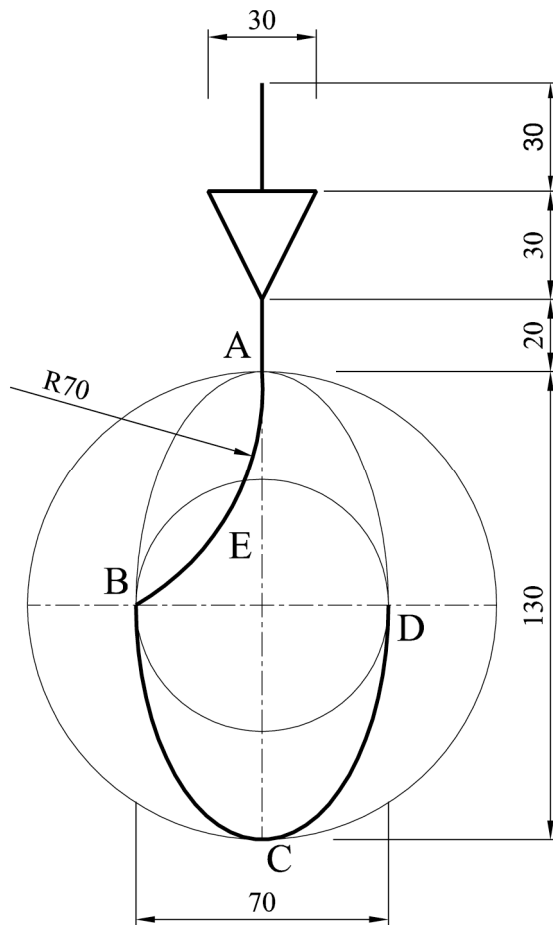
- (a) An elevation in the direction of arrow **A**.
- (b) An end elevation in the direction of arrow **B**.
- (c) Insert **any four** dimensions.



**2.** The figure shows the design of a logo for a fishing club.

The curve **ABCD** is elliptical. **AC** is the **major axis** of the ellipse and is 130 mm long. **BD** is the **minor axis** and is 70 mm long. **AEB** is an arc of a circle.

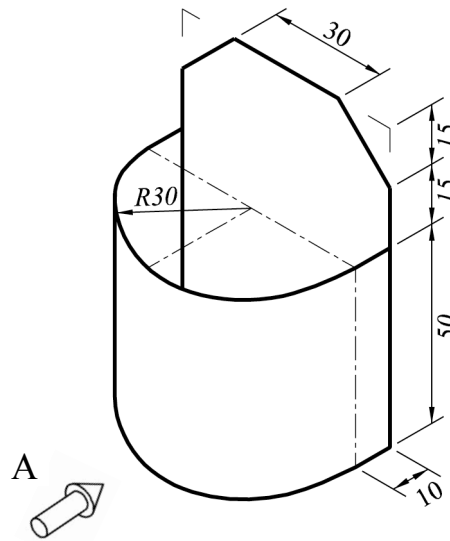
Draw the given ellipse and complete the logo showing clearly all construction.



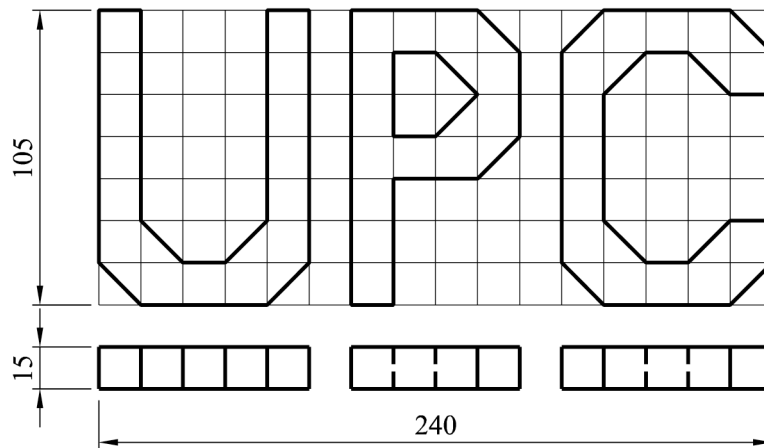
3. The figure shows a design for a desk tidy.

Draw:

- (a) An elevation in the direction of arrow A.
- (b) A plan projected from the elevation.
- (c) The complete **surface development** of the desk tidy.



4.



The figure shows the elevation and plan of the initials **UPC**.

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:

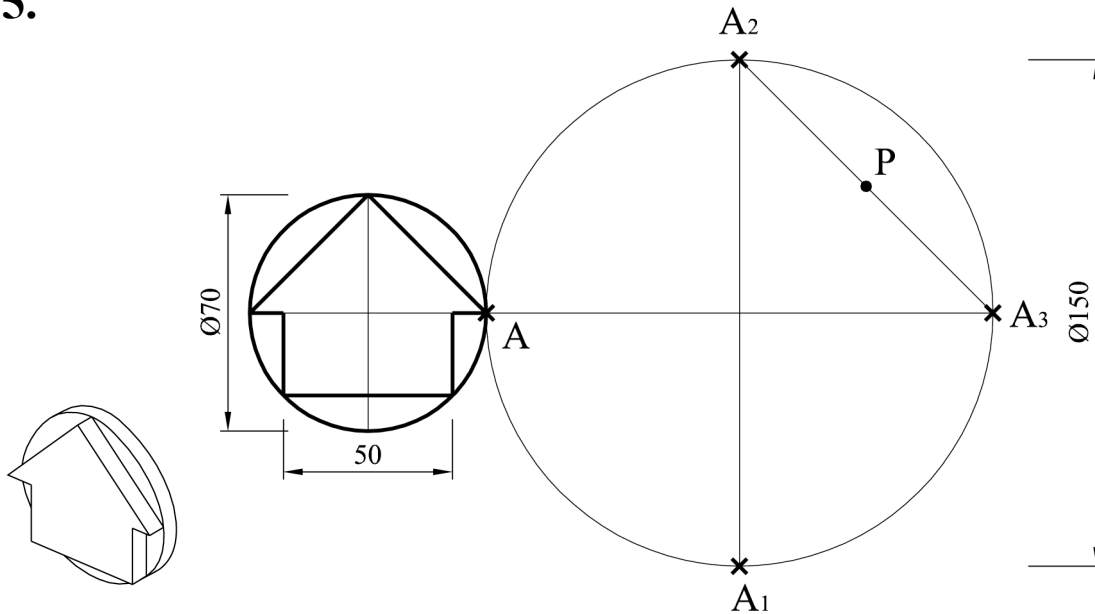
- (a) An **isometric** view of the initials.

**or**

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

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

5.



The graphics show the design of a logo for a hat shop.

- (a) Draw the given logo and then locate the points **A**, **A1**, **A2**, **A3**, **P** and the line **A-D** 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 the design for a table lamp.

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

Show all construction lines, tangents and points of contact.

