

B

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JUNIOR CERTIFICATE EXAMINATION

TECHNICAL GRAPHICS ORDINARY LEVEL

SAMPLE EXAMINATION PAPER

SECTION B - 280 Marks

INSTRUCTIONS

- 1. Answer any four of the six questions in section B (280 marks) (all questions in this section carry equal marks).**
- 2. Show all constructions clearly and use indexing as appropriate.**
- 3. Drawings and sketches should be in pencil.**
- 4. Ensure you write your examination number on all the sheets you hand up.**

SECTION B (ANSWER ANY FOUR QUESTIONS - All questions carry equal marks)

①

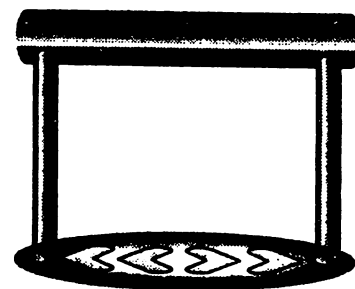
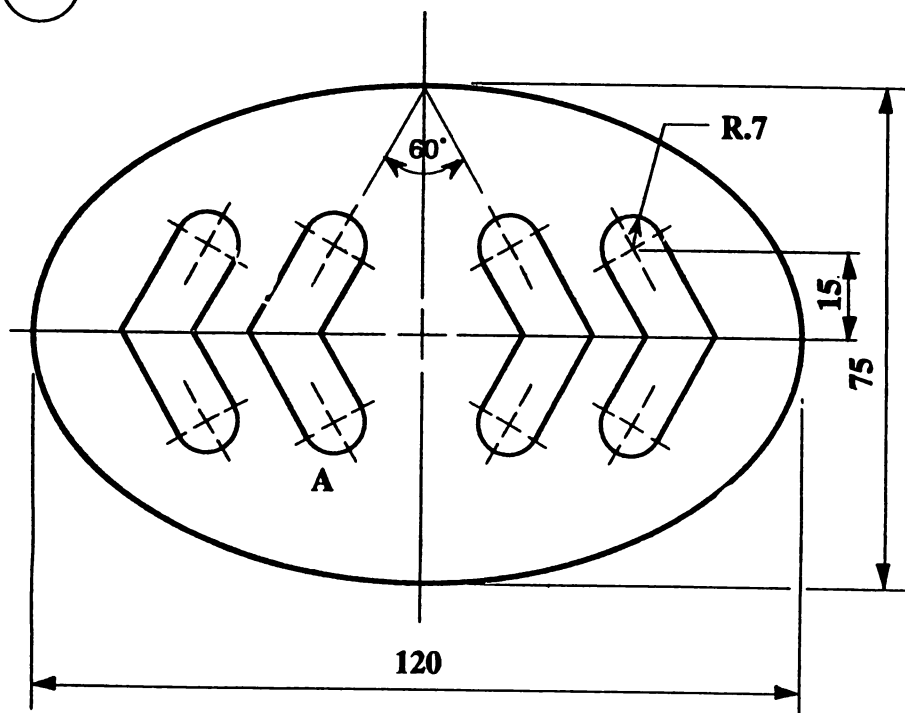


Fig. 1

Fig. 1 shows the base of a vegetable masher. The outer edge is an ellipse and the four openings are the same.

Draw the masher base full size showing the opening 'A' only. Show all constructions lines.

2

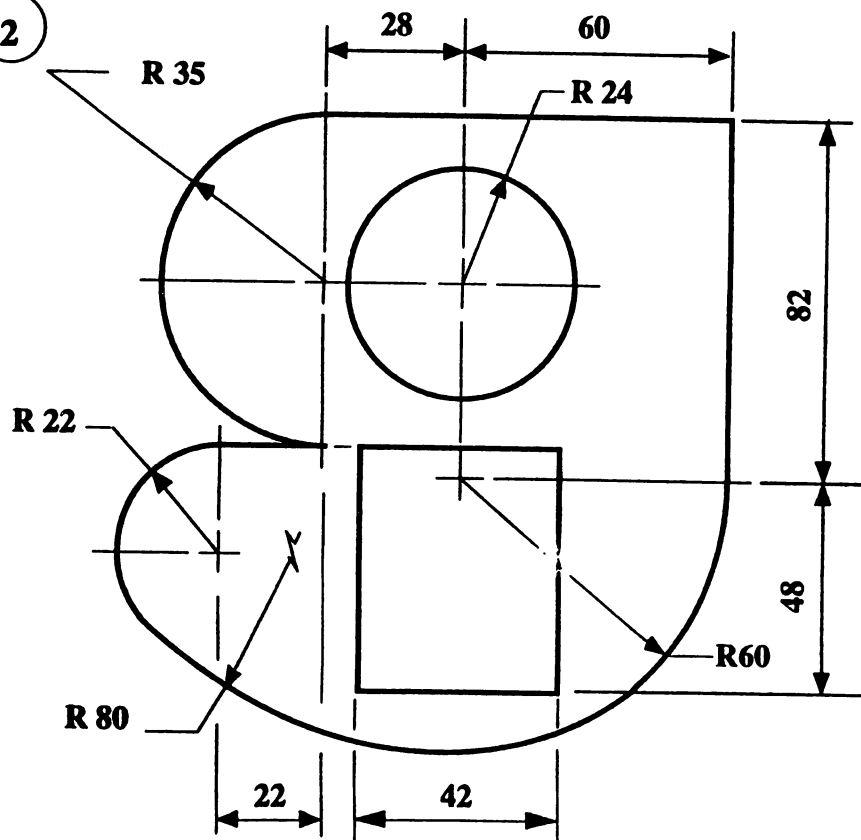


Fig. 2

Fig. 2 shows the outline of a well known logo.

Draw the logo to the dimensions given showing all construction lines.

The drawing shows the side view of a paper stapler.

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- The technical drawing shows a mechanical part with the following dimensions and features:
- Front View (Top):**
 - Overall width: 120
 - Overall height: 28
 - Top-left corner: 36 (horizontal), 13 (vertical)
 - Top-right corner: 60° angle
 - Bottom-right corner: 90° angle
 - Bottom-right corner: 60° angle
 - Bottom-right corner: 18 (vertical)
 - Bottom-right corner: 9 (vertical)
 - Bottom-right corner: 5 (horizontal)
 - Top View (Bottom):**
 - Overall width: 120
 - Overall length: 110
 - Left side: 20 (horizontal), 4 (vertical)
 - Right side: 25 (horizontal)

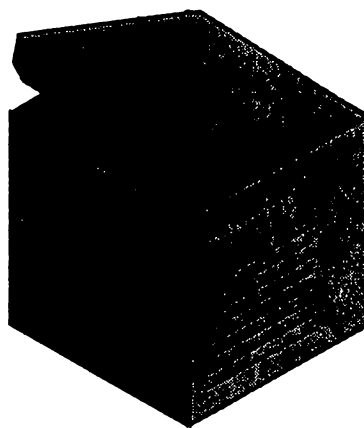
The image shows the orthographic projection of a mechanical part, consisting of a front view (top) and a top view (bottom).

Front View (Top):

- The overall height of the part is 45.
- The base has a height of 22.
- The total width of the base is 50.
- There are two vertical pillars on the base. The distance between their centers is 28.
- The left pillar has a height of 40.
- The right pillar has a height of 45.
- A dimension of 4 is shown in a circle at the top left, likely indicating a hole diameter.

Top View (Bottom):

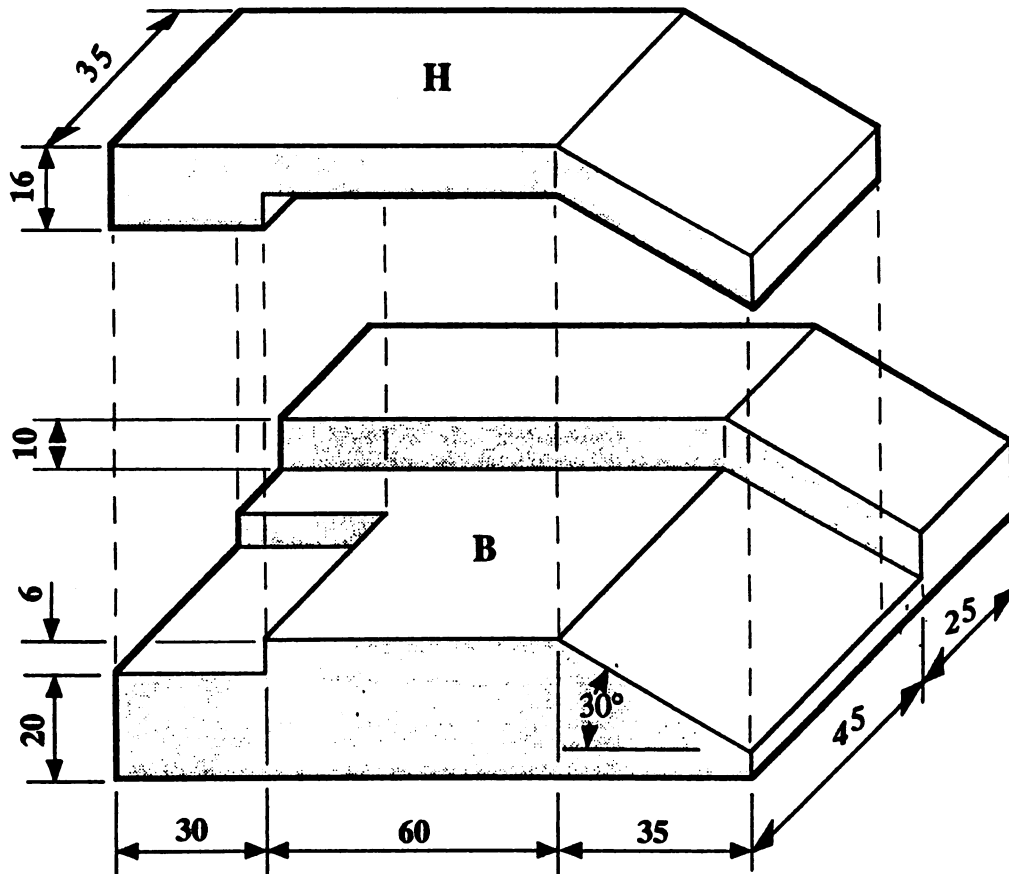
- The overall width of the part is 50.
- The overall height of the part is 40.
- The base has rounded corners with a radius of R 10.
- There are two rectangular slots on the base. The distance between their centers is 28.
- The width of each slot is 4.
- The distance from the right edge of the base to the center of the right slot is 8.
- The distance from the top edge of the base to the center of the top slot is 6.
- The distance from the right edge of the base to the center of the bottom slot is 4.



The drawing shows the outline plan and elevation of a plugtop.

- (a) Draw the given *elevation* and project an *end elevation* (ignore the angle at the top of the pins).
- (b) The plugtop is to be packaged in a box as shown so that it just fits.
Draw the *development* of the box full size omitting the assembly tabs.

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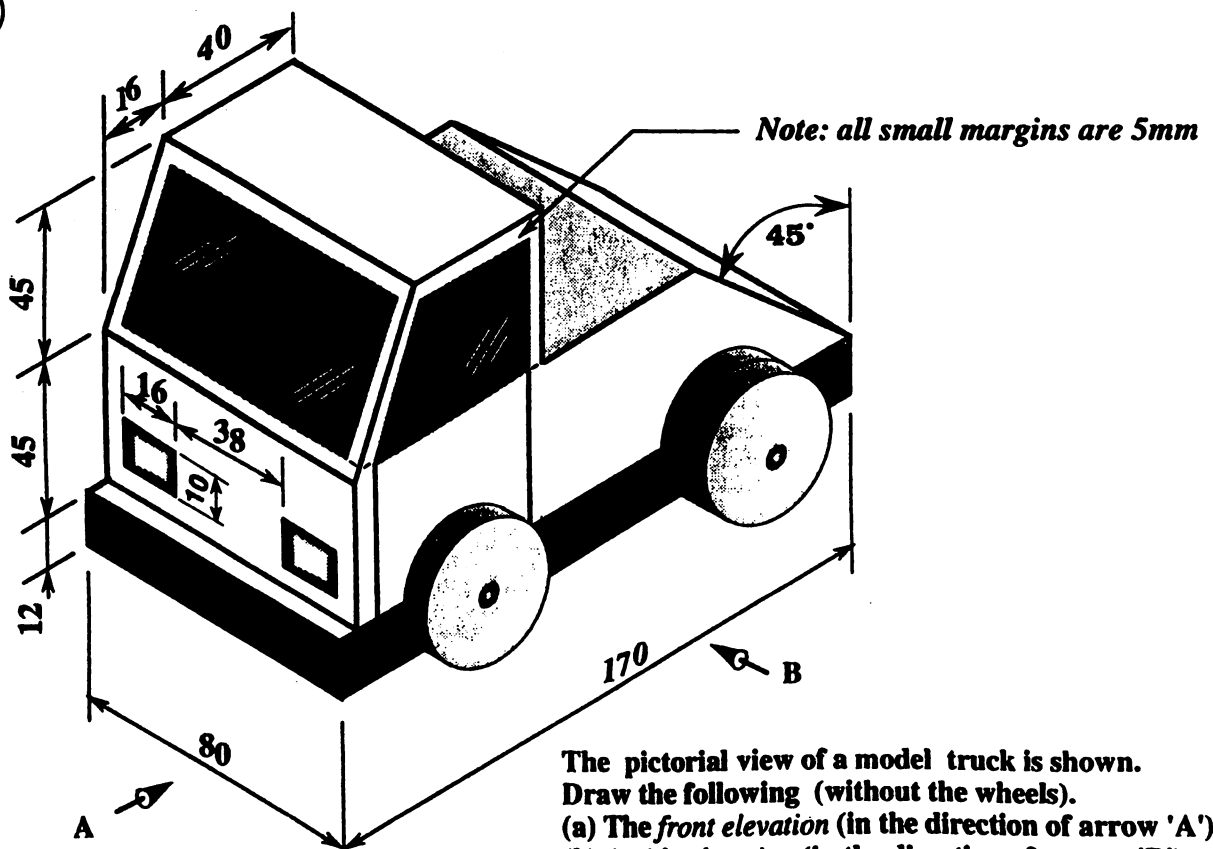


The oblique drawing shows a telephone set.

(a) Make an *isometric* drawing of the base ('B') only.

(b) Using the isometric grid paper provided make a *freehand* pictorial sketch of the handset ('H').

6



The pictorial view of a model truck is shown. Draw the following (without the wheels).

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

(b) A *side elevation* (in the direction of arrow 'B').