AN ROINN OIDEACHAIS

INTERMEDIATE CERTIFICATE. EXAMINATION, 1969

MECHANICAL DRAWING

WEDNESDAY, 25th JUNE — MORNING, 9.30 to 12.30

400 marks

INSTRUCTIONS

(1) Not more than *five* questions may be attempted; *one* of these must be *Question No. 1, Part I*. *Two* must be selected from *Section A, Part II*, and *two* must be selected from *Section B, Part II*.

(2) All questions carry equal marks; a maximum of 12 marks will be awarded for draughtsmanship in respect of each question and a maximum of 20 marks will be awarded for neatness, arrangement and presentation of answer sheets.

(3) The number of the question must be distinctly marked by the side of each answer.

(4) Work on one side of the paper only.

(5) Examination number must be distinctly marked on each sheet of paper used.

(6) All construction lines must be clearly shown.

PART I

This question must be attempted.

1. The drawing at Fig. 1 represents a solid. Make a full size drawing of the solid according to the dimensions given, showing :

   (a) an elevation looking in the direction of the arrow A;

   (b) a plan view projected from (a);

   (c) an end elevation looking in the direction of the arrow B.

PART II

SECTION A

(Answer *two* questions from this section.)

2. The elevation and plan of a solid are shown at Fig. 2. Draw a full size isometric view of the solid.

or

Using the isometric grid paper provided, make a neat well-proportioned freehand isometric drawing of the solid shown at Fig. 2.

3. The elevation and plan of a truncated prism are shown at Fig. 3. Draw a full size development of all the surfaces of this prism.

4. Fig. 4 shows the elevation and plan of a cube which has one face inclined at 60° to the horizontal plane.

   (a) Reproduce full size this elevation and plan.

   (b) From the plan project a new elevation on the ground line $X_1 Y_1$. The new ground line is drawn perpendicular to the arrow A.

   Candidates must adopt their own form of indexing the corners.

5. A lampshade, in the form of a truncated square pyramid, is made of four pieces of card, each of the same size and shape as shown in Fig. 5. Draw the elevation and plan of the lampshade according to the dimensions shown.

PART II

SECTION B

(Answer *two* questions from this section.)

6. In Fig. 6 three circles are shown whose diameters are in the ratio of the numbers 7, 4 and 2. Draw the figure full size to the dimension given.

7. Draw a plain scale, to show feet and inches up to 5 feet, on which a distance of 3 ft. 6 ins. is represented by $5\frac{1}{4}$ ins.
Using this scale draw the figure shown at Fig. 7 to the dimensions given.

8. Draw the figure shown at Fig. 8. The curves are to be composed of arcs of circles of $\frac{1}{2}$ in. and $1\frac{1}{2}$ ins. in radii.

9. Draw the figure shown at Fig. 9 to the dimensions given. Construct a figure similar to this having an overall height of $2\frac{7}{8}''$.

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INTERMEDIATE CERTIFICATE EXAMINATION 1969

MECHANICAL DRAWING

PART I

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FIGURE I

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MECHANICAL DRAWING
PART II

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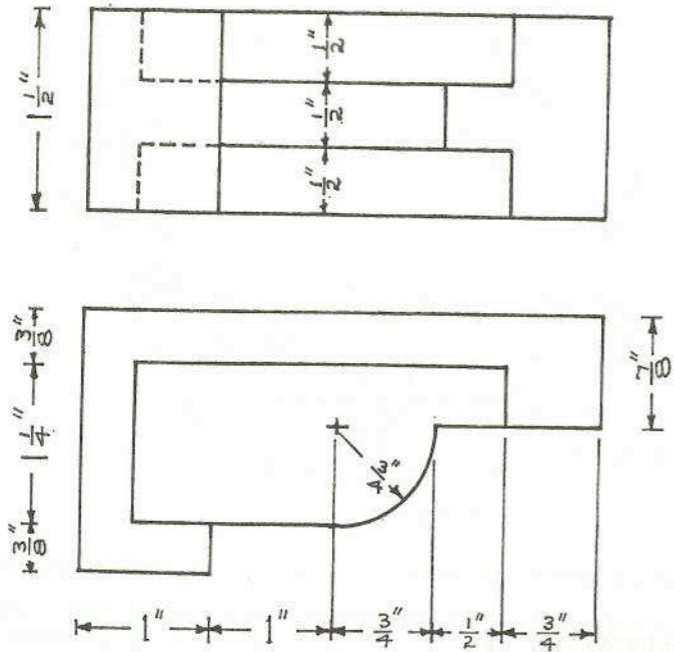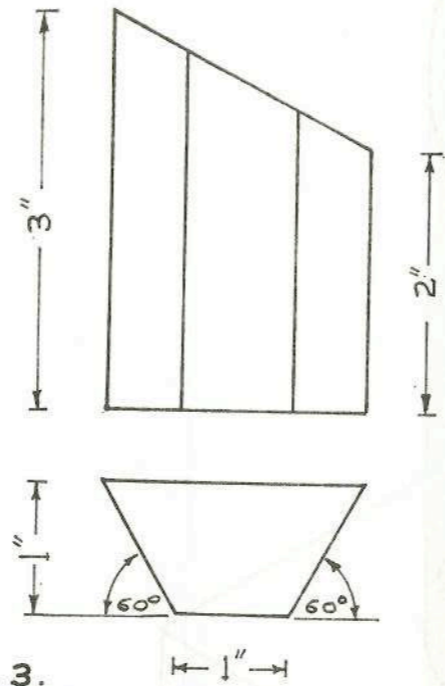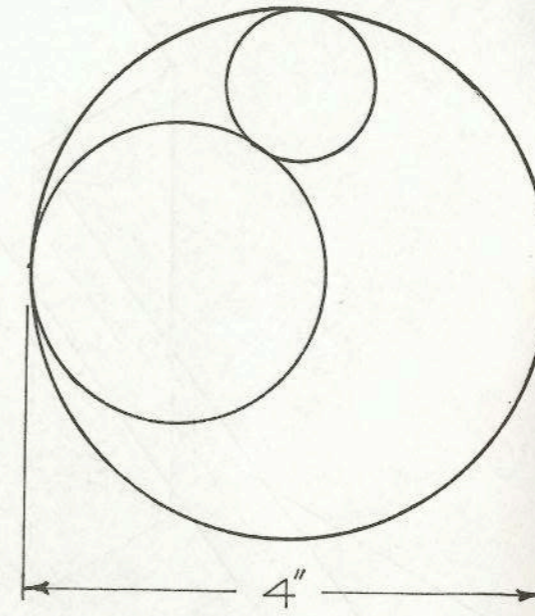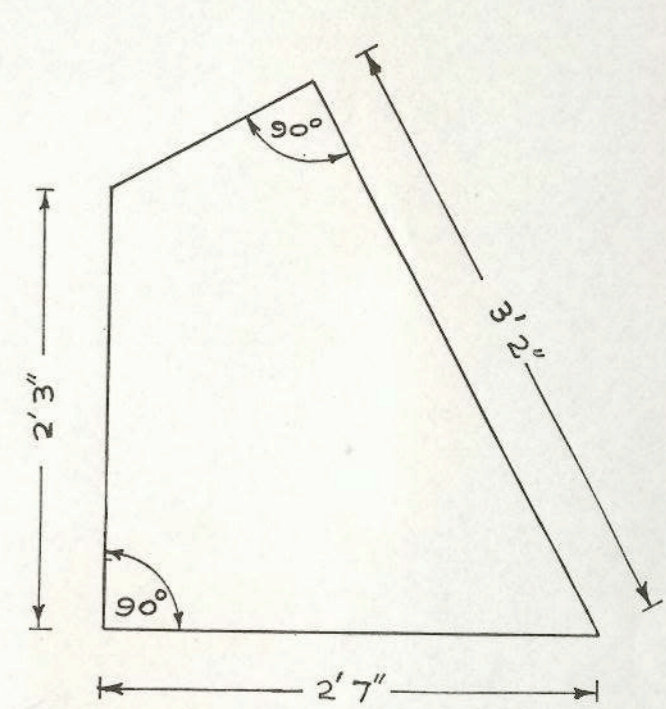## INTERMEDIATE CERTIFICATE EXAMINATION 1969
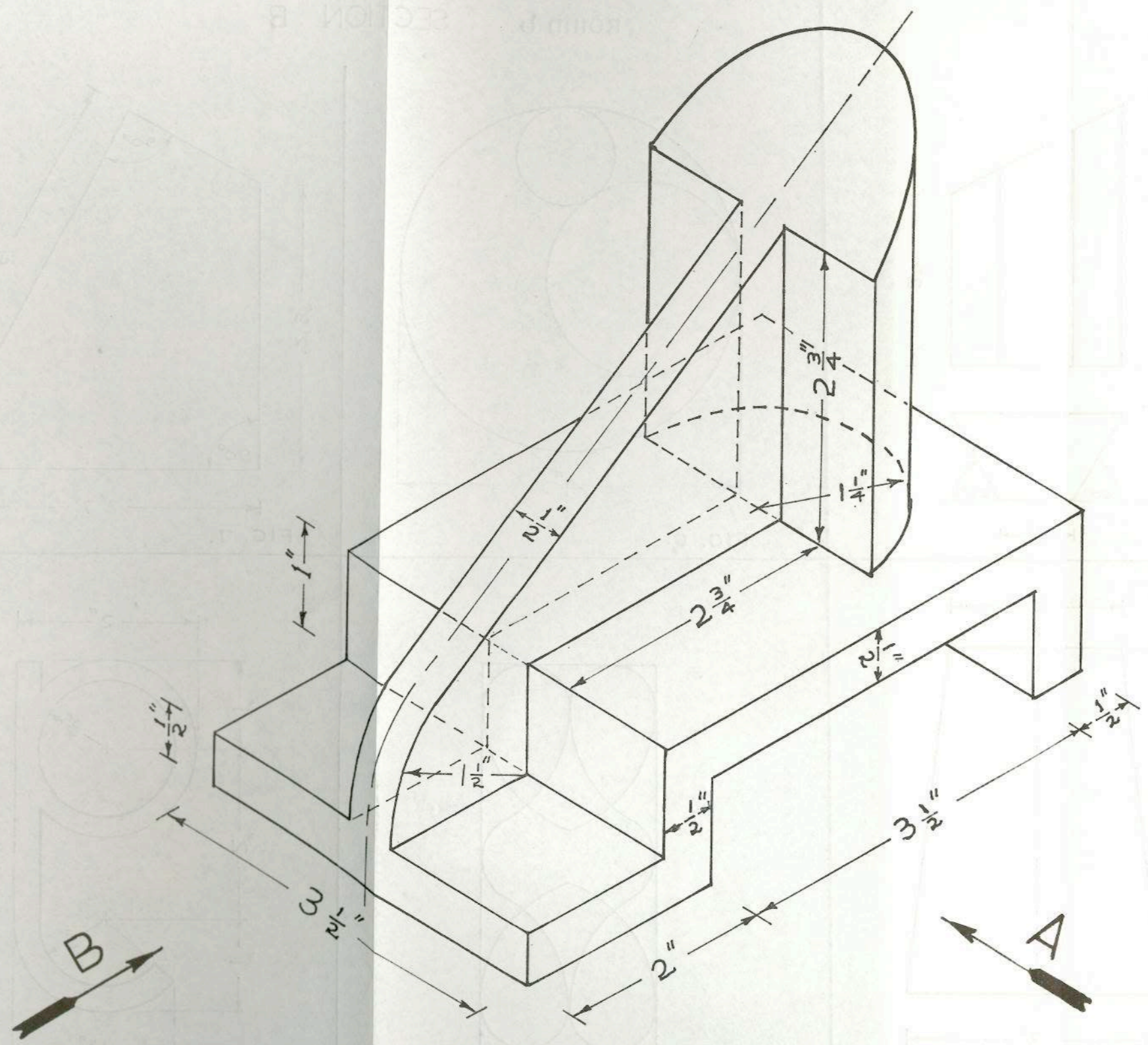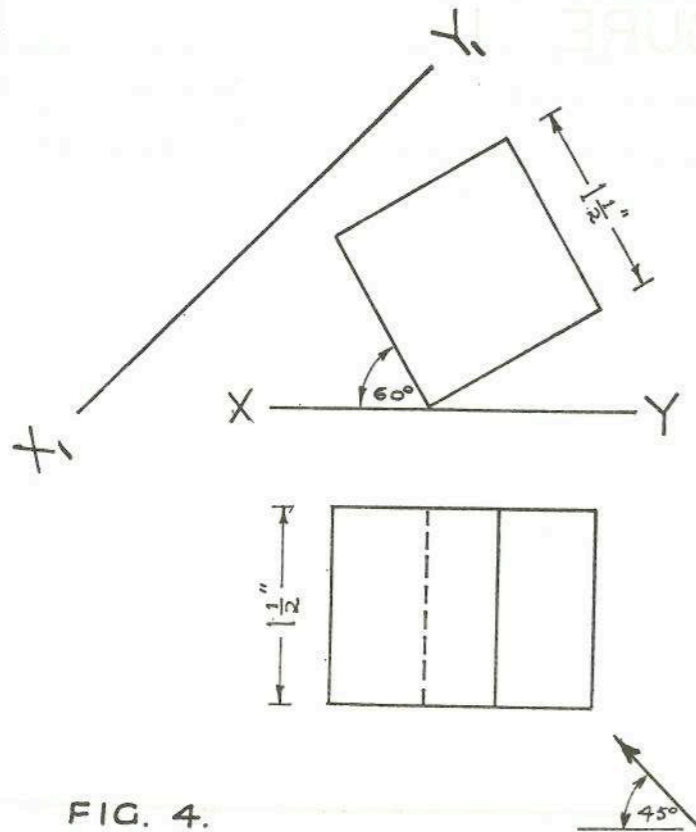
Roinn a   SECTION A

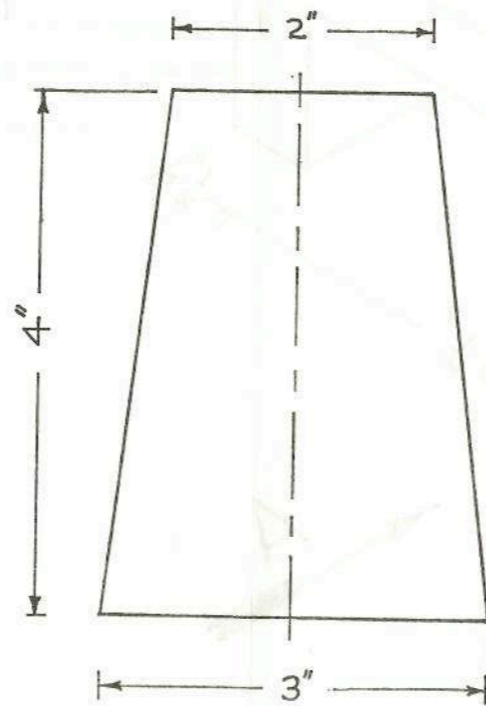FIG. 2.

FIG. 3.

FIG. 4.

FIG. 5.

Roinn b   SECTION B

FIG. 6.

FIG. 7.

FIG. 8.

FIG. 9.