AN ROINN OIDEACHAIS.

BRAINSE AN GHAIRM-OIDEACHAIS.

CERTIFICATE EXAMINATIONS
for
DAY VOCATIONAL COURSES, 1959.

MECHANICAL DRAWING.

Friday, 19th June—10 *a.m.* *to* 12.30 *p.m.*

INSTRUCTIONS.

1. Not more than *four* questions may be attempted; *two* of these must be selected from Section A and *two* selected from Section B.

2. The number of the question must be distinctly marked by the side of each answer.

3. Work on one side of the paper only.

4. All questions carry equal marks; a maximum of 5 marks will be awarded for accuracy and neatness of arrangement in respect of each question.

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

SECTION I.

(Answer *either* 1 (*a*) *or* 1 (*b*) and any *one* other question from this Section.)

1 (*a*). The drawing in Fig. 1 (*a*) represents a Woodwork joint.

Make a full-size dimensioned drawing showing a front elevation looking in the direction of arrow X, an end elevation looking in the direction of arrow Y and a plan of the *assembled joint*.

Essential dimensions are to be shown on the completed drawing.

or

1 (*b*). The drawing in Fig. 1 (*b*) represents a metalwork project.

Draw a *freehand* sketch of this project *on the* $\frac{1}{8}$" *squared paper* supplied. Give a front elevation, an end elevation and a plan in good proportion and in correct projection.

Indicate by means of properly drawn dimension-lines the minimum number of dimensions which would need to be known in order to make the project. It is not necessary to give the *actual* dimensions.

2. Draw full size in *either* Isometric *or* Oblique projection the model shown in Fig. 2.

3. In Fig. 3, the plan and elevation of a square pyramid are shown at A. Copy these two views full size and then draw the elevation of the pyramid as shown at B.

From the elevation B project and draw a plan of the pyramid in its new position.

Index all corners by suitable lettering.

4. Develop the surfaces of the container shown in Fig. 4. A top need not be included.

Section II.

(Answer any *two* questions from this Section).

5. Fig. 5 represents a handle for a mortise chisel. Copy this figure full size and show clearly all the construction lines that are necessary when locating the centres of the tangential arcs. The lines A—A in the figure are tangential to the curves.

6. A Cornice mould is shown in Fig. 6. Copy this figure full size. Enlarge the side AB to 5 inches and re-draw the figure proportionately by radial projection.

All construction lines must be clearly shown on your drawing.

7. A triangle ABC is shown in Fig. 7. Copy this triangle full size and by means of a geometrical construction reduce it to :—

(*a*) A rectangle of equal area.
(*b*) A square of equal area.

8. An equilateral triangle ABC is shown in Fig. 8, with a vertex A resting on the line X—X. The triangle is rotated about the point A in the direction of the arrow until the side AC makes an angle of 65° with the line X—X.

Draw the triangle in this new position.

SCRÚDUITHE TEASTAIS

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1959