AN ROINN OIDEACHAIS.

BRAINSE AN GHAIRMOIDEACHAIS.

CERTIFICATE EXAMINATIONS
for
DAY VOCATIONAL COURSES, 1960.

MECHANICAL DRAWING.

Friday, 17th 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 A.

(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*) [illegible] 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 Oblique Projection the model shown in Fig. 2.

3. Develop the surfaces of the scoop shown in Fig. 3.

4. In Fig. 4 the side elevation and end elevation of a solid are shown. Copy these views full size. Project and draw a plan from one of these elevations.

From the points indicated on the drawing, index the plan by suitable lettering.

Section B.

5. Copy the design full size as shown in Fig. 5. Show clearly all the construction lines that are necessary when locating the centres of the tangential arcs.

6. In Fig. 6 are shown three regular hexagons whose diagonals D, E and F are in the ratio of the numbers 2, 3 and 4. Draw the figure full size to the dimensions given.

7. Fig. 7 represents a cranked lever.

Draw the lever full size in the position shown. The lever is then rotated about the point O in the direction of the arrow until the line OP makes an angle of 72° with the horizontal line XX.

Draw the lever in this new position.

8. A letter P is shown in Fig. 8. Copy the figure full size. Enlarge the side AB to $5\frac{1}{4}$″, and re-draw the letter proportionately by radial projection.

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