

AN ROINN OIDEACHAIS.

BRAINSE AN GHAIRMOIDEACHAIS.

CERTIFICATE EXAMINATIONS
for
DAY VOCATIONAL COURSES, 1961.

MECHANICAL DRAWING.

Friday, 23rd 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 of the *assembled joint*, showing a front elevation looking in direction of arrow "B", an end elevation looking in direction of arrow "A", and a plan view. All dimensions required for making this joint to be shown on completed drawing.

[P.T.O.]

1 (B). The drawing in fig. 1 (B) represents a metalwork project.

Draw, *freehand* on the $\frac{1}{8}$ " *squared paper* supplied, a front elevation, end elevation, and a plan of the project in good proportion and in correct projection. Show by means of properly drawn dimension lines the number of dimensions you would require in order to be able to make the project. (It is not necessary to give *actual* dimensions.)

2. Draw full size in Oblique Projection the model shown in Fig. 2.

3. Draw full size the design shown in Fig. 3. Increase length BC to 3", and re-draw the figure proportionately by radial projection.

4. In fig. (A) is shown an Isometric Drawing of a cube of 2" side, out of the corner of which a cube of 1" side is removed.

Fig. (B) shows an elevation of this cube with one side inclined at 30° to the XY line.

Draw fig. (B) full size; a view looking in direction of arrow "X"; and a plan view.

Index all corners (14) on each view. (Keep plan about 1" down from elevation.)

SECTION B.

5. Figure 5 represents a lever capable of being rotated about point "O".

Draw the lever full size, in the position shown. The lever is now rotated about point "O" and point "A" moves through an angle of 45° in the direction of the arrow to a new position "A₁". Draw the lever in this new position.

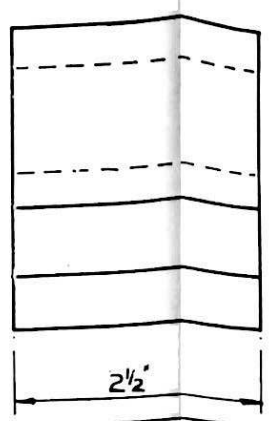
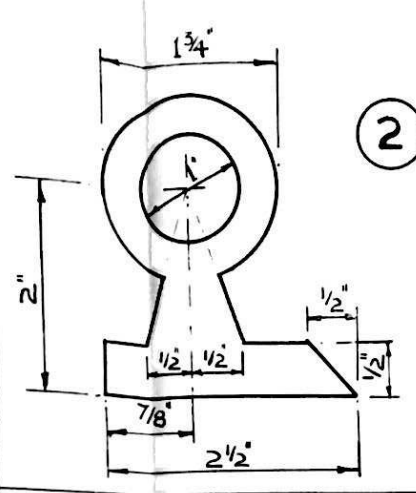
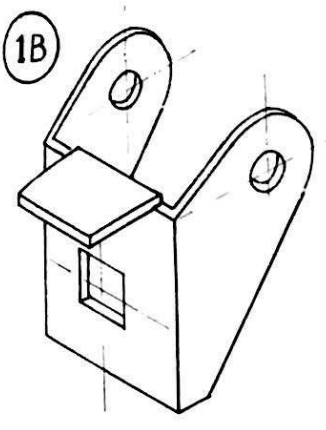
6. Develop the surfaces of the hanging container shown in fig. 6.

7. Draw full size the machine handle shown in fig. 7. Show all construction lines necessary to locate centres of tangential arcs.

8. Figure 8 shows three circles of equal diameter inscribed in a 6" diameter circle.

Draw the figure full size and show clearly all construction lines used.

Section A



Section B

