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BRAINSE AN GHAIROMIDEACHAIS.

CERTIFICATE EXAMINATIONS FOR DAY VOCATIONAL COURSES, 1962.

MECHANICAL DRAWING

Friday, 22nd 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 I and two selected from Section II.
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. 1A represents a woodwork joint. Make a full size drawing of the assembled joint showing:-

- (a) a front elevation looking in the direction of arrow Y,
- (b) an end elevation looking in the direction of arrow X,
- (c) a plan view.

All dimensions required for making the joint should be shown on the completed drawing.

1(B). The drawing in fig. 1B represents a metalwork project. Draw free-hand on the $\frac{1}{8}$ " squared paper supplied, the following views of the project in good proportion and correct projection:-

- (a) a front elevation,
- (b) an end elevation,
- (c) a plan.

Show by means of properly drawn dimension lines the number of dimensions you would require in order to make the project. (It is not necessary to give actual dimensions).

2. The form and dimensions of a model are shown in the isometric drawing at fig. 2. The plan of this model, in a certain position on a horizontal plane, is also given. Draw:-

- (a) the plan (as indicated) full size,
- (b) a projected elevation looking in the direction of arrow B,
- (c) an end elevation looking in the direction of arrow A.

The corner index letters should be shown correctly on the views (a), (b) and (c).

3. Develop the surfaces of the container shown in fig 3.

4. The elevation of a regular square pyramid is shown in fig. 4. The pyramid is cut by a plane XY.

Draw full size an elevation, plan and end elevation of this truncated pyramid; draw also the true shape of section.

The corner index letters should be shown correctly on the related views.

SECTION II

(Answer two questions from this Section)

5. Draw a scale $1\frac{1}{4}$ inches to 1 foot to read feet and inches. Using this scale, draw the project shown at fig. 5.

6. Fig. 6 represents a shutter plate capable of being rotated about point A. Draw the plate full size in the position shown.

The plate is now rotated in a clockwise direction until hole B coincides with hole B₁. Draw the plate in this new position.

7. Draw full size the escutcheon plate shown in fig. 7.

The $1\frac{1}{4}$ " dimension is increased to $3\frac{3}{4}$ " as indicated. Draw the enlarged figure proportionately by radial projection.

(N.B. The new position of keyhole as shown dotted is not in proportion and is given for guidance only.)

8. Draw full size the semi-ellipse shown in fig. 8. Find its foci. All construction lines must be shown.

