AN ROINN OIDEACHAIS
BRAINSE AN GHAIRMOIDEACHAIS

G.321

DAY VOCATIONAL CERTIFICATE EXAMINATIONS, 1970

MECHANICAL DRAWING

MONDAY, 22nd JUNE, 2 - 4.30 p.m.

INSTRUCTIONS

(a) Not more than FOUR questions may be attempted; TWO of these must be selected from Section I and TWO from Section II.
(b) Question No. 1 is compulsory and candidates have a choice of doing either 1(A) or 1(B).
(c) The number of the question must be distinctly marked by the side of each answer.
(d) All questions carry equal marks; a maximum of five marks will be awarded for accuracy and neatness of arrangement in respect of each question.
(e) Work on one side of the paper only.
(f) Examination number must be distinctly marked on each sheet of paper used.

IMPORTANT NOTE

TWO SETS OF DRAWINGS are provided, one with the dimensions in inches and the other with the dimensions in millimetres. Candidates are free to work from either set. Candidates working in millimetres must print ALL DIMENSIONS IN MILLIMETRES on their answer sheets.

SECTION I

Candidates may select either 1(A) or 1(B) and one other question from this section.

1(A). The drawing represents a Woodwork Joint. Make a full-size dimensioned drawing of the assembled joint showing:-

(a) a front elevation looking in the direction of arrow A;
(b) an end elevation looking in the direction of arrow B;
(c) a plan projected from (a).

Print the title of each view neatly.

OR

1(B). The drawing represents a Metalwork Exercise. On the ⅛ in. (3 mm) squared paper supplied draw free-hand and in good proportion the following:-

(a) A front elevation looking in the direction of arrow A.
(b) An end elevation looking in the direction of arrow B.
(c) A plan projected from (a).

Show by properly drawn dimension lines the number of dimensions you would require to make this exercise. (It is not necessary to give actual measurements.)

2. An orthographic drawing of a Woodwork model is shown in Fig. 2. Draw full-size an ISOMETRIC projection of the model, looking towards corner A. (A free-hand isometric drawing will be accepted provided isometric grid paper is used.)

3. The elevation and plan of a square pyramid are shown in Fig. 3. The pyramid is cut by an inclined plane CP at an angle of 30° to the H.P. Draw full-size the following:-

(a) The plan and elevation as given. (Index both views.)
(b) The development of the sloping surfaces. (Omit the sectioned surface and base.)

4. Fig. 4 shows a hexagonal pyramid mounted on a cylinder. Draw full size:-

(a) the elevation and plan as shown (index both views);
(b) an auxiliary elevation on the line X'Y'.

(Complete the indexing on the new elevation.)

SECTION II

(Answer TWO questions from this Section)

5. Reproduce the pattern shown in Fig. 5. Measure and write down the diameter of the circle at the centre of the pattern.

6. A Metalwork Project in the form of a bottle opener and lid remover is shown in Fig. 6. Reproduce the drawing to the dimensions given and write down the overall length of the project.

7. In Fig. 7 a rod AB rests upon a disc. The rod is free to rotate about the point A when the disc turns about the centre O in a clockwise direction. Draw full-size:-

(a) the arrangement as shown;
(b) the new position of the rod when the disc turns through an angle of 150°.

Measure and write down the angle through which the rod turns.

8. A clock case is shown in Fig. 8. Draw full-size the clock case as shown.
Reduce the overall height of the clock case to 3 in. (75 mm) and re-draw the case proportionately by radial projection.

G321

SCRÚDUITHE TEASTAIS NA NGAIRM—CHÚRSAÍ LAE

LÍNÍOCHT MHEICNIÚIL

1970

SECTION 1
ROINN 1

1A.

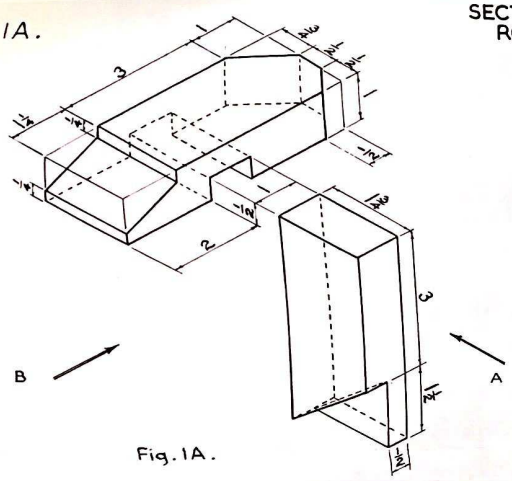

Fig. 1A.

1B.

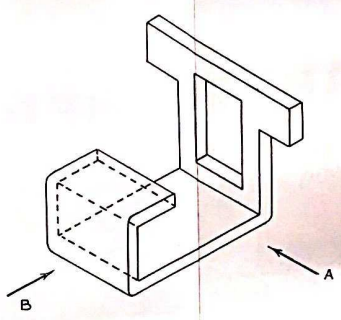

Fig. 1B.

SECTION 2
ROINN 2

5.

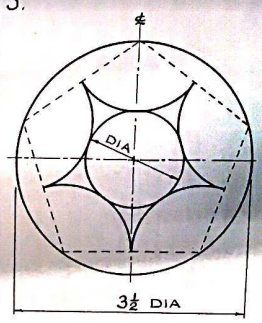

Fig. 5.

6.

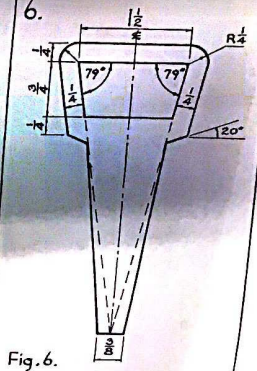

Fig. 6.

7.

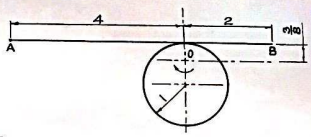

Fig. 7.

8.

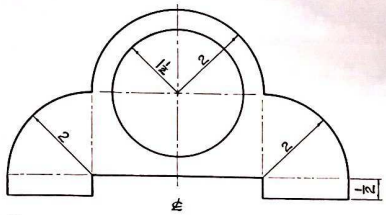

Fig. 8.

2.

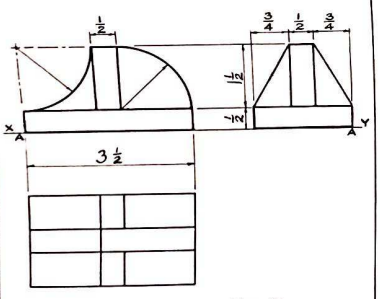

Fig. 2.

3.

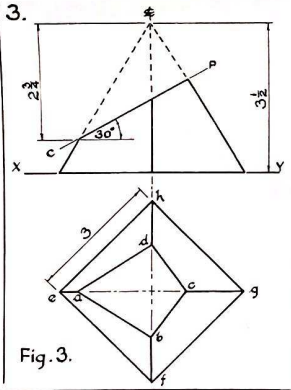

Fig. 3.

4.

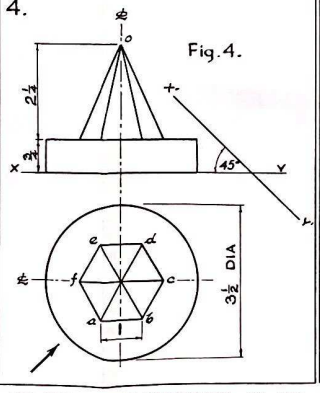

Fig. 4.

ALL DIMENSIONS IN INCHES.
NA TOISÍ GO LÉIR IN ORLAÍ.

CANDIDATES MAY WORK FROM THE DRAWINGS IN MILLIMETRES ON THE REVERSE SIDE IF THEY PREFER.
IS CEADAITHE D'IARRTHÓIRÍ AN OBAIR A DHÉANAMH Ó NA LÍNÍOCHTAÍ ATÁ I MILLIMÉADAIR AR AN TAOBH EILE MÁS MIAN LEO.