AN ROINN OIDEACHAIS.

AN BRAINSE GAIRM-OIDEACHAIS.

CERTIFICATE EXAMINATIONS

for

DAY VOCATIONAL COURSES, 1957.

MECHANICAL DRAWING.

Friday, 14th June—10 *a.m. to* 12.30 *p.m.*

INSTRUCTIONS.

1. Either 1A or 1B *of the first question in Section A is compulsory.*

If 1B is selected, the sketching *must be done on the squared paper provided.*

2. *Not more* than *four questions* may be attempted, *two of these must be selected from Section* A and *two selected from Section B.* All attempted questions except 1B may be drawn on *one* sheet of paper.

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

4. Work on *one* side of the paper only.

5. A maximum of 5 *marks* will be awarded for accuracy and neatness of arrangement in *respect of each question.*

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

[P.T.O.

Section A.

1A. The drawing represents a "Woodwork Joint." Make a dimensioned drawing, giving front elevation (looking in direction of arrow A), end elevation, and plan of *assembled* joint. Drawing should be full size, and all essential dimensions should be shown.

[25 marks.]

1B. The figure represents a "Metal-work Exercise." Make a freehand workshop sketch of the object in *good proportion*, showing front elevation, end elevation, and plan. The bend is at a right angle. All dimensions necessary for making the exercise must be shown. *The use of instruments is not allowed.* The sketch *must* be done on the squared paper supplied.

[25 marks.]

2. The front elevation, and end elevation of a hexagonal pipe are shown in Fig. 2. Draw the given views full size, and also (*a*) project the plan, and (*b*) project the true shape of the splayed or cut surface of the pipe. Indicate the positions of points A, B, C and D, on all the views.

[25 marks.]

3. The plan and elevation of a pentagonal pyramid are shown in Fig. 3. Draw these views full size and develop the surface area of the pyramid. Index all corners.

[25 marks.]

4. The elevation and plan of a "Mallet head" are shown in Fig. 4. Draw an oblique view (full size) of the "Mallet head."

[25 marks.]

Section B.

5. A section of a moulding is shown in Fig. 5. Copy this figure, enlarging its total height to $4\frac{7}{8}$ in., and all the other dimensions in proportion.

[25 marks.]

6. Fig. 6 represents two pulleys connected by a crossed belt. Draw this arrangement to a scale of 1 in. represents 1 ft. No credit will be given for tangents unless constructions are clearly shown.

[25 marks.]

7. The plan of an elliptical sports field is shown in Fig. 7. The ratio of the major axis to the minor axis is as 11 is to 7. Construct the elliptical plan to a scale of 1 in. represents 150 yards.

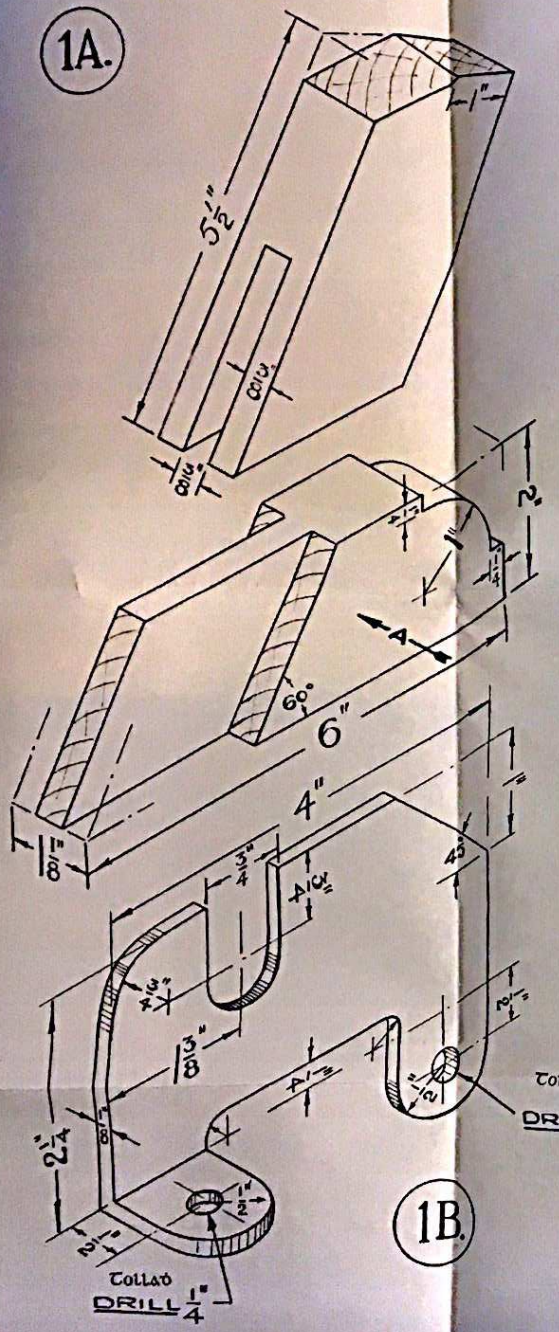
[25 marks.]

8. A right-angle triangle is shown in Fig. 8. the sides of which are in the proportions as indicated. Draw a right-angle triangle in these proportions, and show by graphical method that the square on the hypotenuse equals the sum of the squares on the other two sides.

[25 marks.]

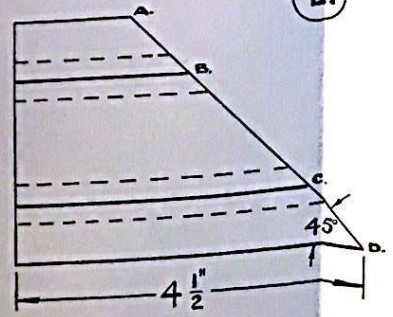
SCRÚDUITE TEASTAIS. LÍNIOCT MEICNICIÚIL. 1957. SAIRM-CÚRSAÍ LAE.

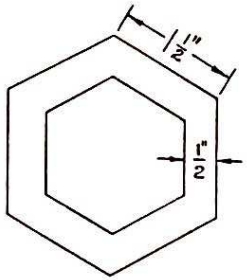
1A.



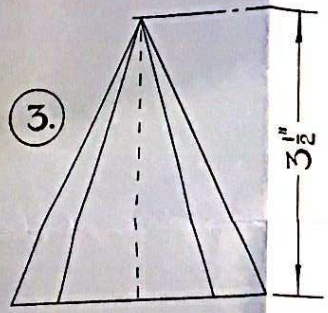
1B.

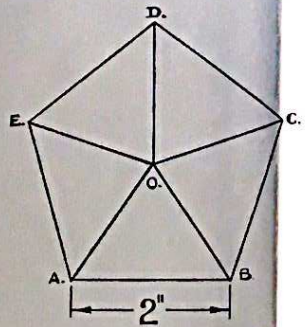
2.



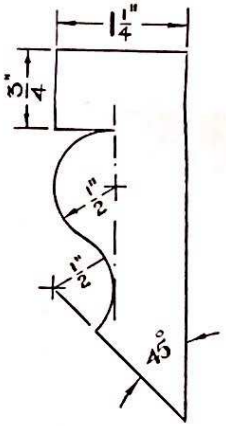


3.

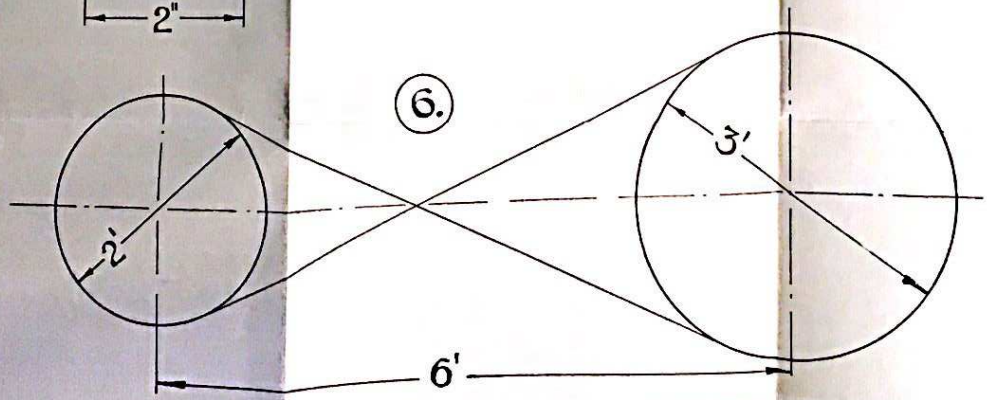




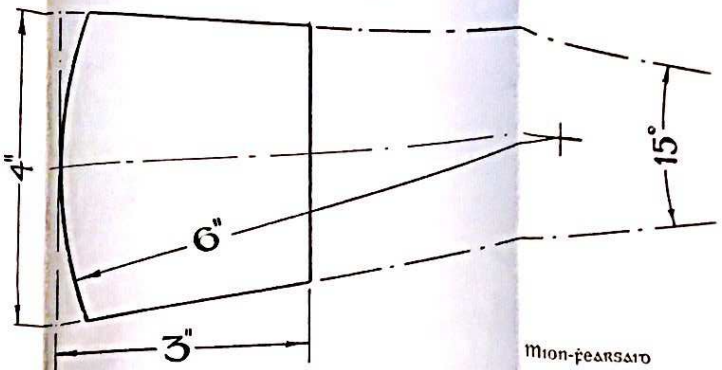
5.

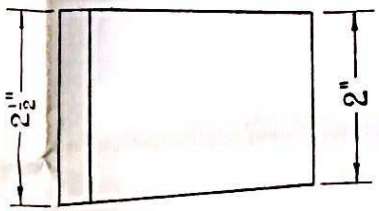


6.

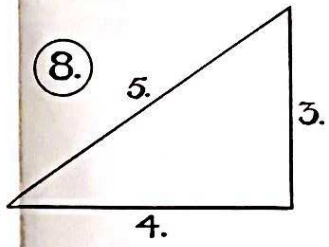


4.

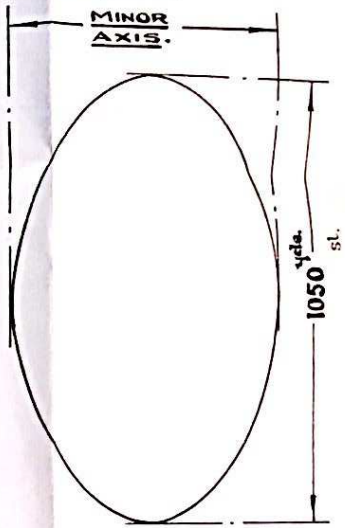




8.



Mion-fearsaid
MINOR AXIS.



7.

Léig sō cūramaċ na comairlí ar an bpāipéar scrúduite

READ CAREFULLY THE INSTRUCTIONS ON THE EXAMINATION PAPER