AN ROINN OIDEACHAIS
(Department of Education).

BRAINSE AN MHRÁN-OIDEACHAIS
(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1927.

PASS.

MECHANICAL DRAWING AND DESIGN.
BOYS AND GIRLS.

WEDNESDAY, 22nd JUNE.—AFTERNOON, 4 to 6 P.M.

BOYS ONLY.

NOTE.—The use of mathematical instruments, protractors, scales, T- and set squares, and drawing-boards is allowed.

All construction lines must be clearly shown.

The number of the question must be distinctly marked by the side of each answer. Both sides of the paper may be used.

Questions marked (*) have accompanying diagrams.

Q. 1. At the top of your drawing paper draw with pencil, pen or brush in Gaelic letters, \( \frac{1}{2} \) inch high, the word PÓRGATA. Enlarge the letter A to 1\( \frac{1}{2} \) inches high.

Or,

In Roman letters \( \frac{1}{2} \) inch high the word NOTICE. Enlarge the letter E to 1\( \frac{1}{2} \) inches high.

*Q. 2. The plan and elevation are given of an oil-can. Draw a new elevation upon the given \( X'Y' \).

*Q. 3. The diagram shows a wrought-iron bracket. Draw the bracket, adhering strictly to the figured dimensions.

*Q. 4. Construct a scale of 1\( \frac{1}{4} \) inches to 5 yards to measure 10 yards, and show single feet diagonally. By means of this scale draw the given plan of a plot of ground.

*Q. 5. The front and end elevations of a garage are given. Draw to a scale of 1 inch to 7 feet the plan and front elevation, and show door C open at an angle of 60° and door D at an angle of 45°. Thickness of doors to be neglected.

Q. 6. Make a design to occupy a regular hexagon of 3\( \frac{1}{2} \) inches side.

The design may be based on Celtic ornament or composed of geometric forms and free-drawn forms, or of natural forms ornamentally treated.

State the material or manufacture for which your design is suited.

Or,

Design in black and white a repeating border (repeat 4\( \frac{1}{4} \) inches long by 3 inches deep) in which running or interlacing lines, or bands, form the design. Outside of this border you may add framing lines of well-chosen proportions. Your design should be suitable for inlaid wood, inlaid marble, inlaid linoleum, tiles or mosaic.

Two repeats must be shown, but only one need be completed.
GIRLS ONLY.

NOTE.—The use of mathematical instruments, protractors, scales, T and set squares, and drawing-boards is allowed.

All construction lines must be clearly shown.

The number of the question must be distinctly marked by the side of each answer. Both sides of the paper may be used.

Questions marked (*) have accompanying diagrams.

Q. 1. At the top of your drawing-paper draw, with pencil, pen or brush, in Gaelic letters, 3/8 inch high, the word Fòrsa. Enlarge the letter A to 1 1/2 inches high.

Or,

In Roman letters 1/2 inch high the word NOTICE. Enlarge the letter E to 1 1/2 inches high.

*Q. 2. Make a drawing of one unit of the given border, using the figured dimensions.

*Q. 3. The figure shows a riband pattern. Draw full size according to the figured dimensions.

*Q. 4. The diagram represents the top of a Teapot stand. Draw full size to the dimensions indicated.

*Q. 5. The plan and elevation of a hexagonal bulb-bowl are given. Draw the plan and elevation, and show the ornament on one vertical face. The true shape of one vertical face, with ornament thereon, is given.

Q. 6. Draw a design to suit a circle of seven inches diameter. The design may be based on Celtic ornament, or composed entirely of geometric forms or of geometric and free-drawn forms combined, or of natural forms ornamentally treated.

State the material for which the design is intended.

Or,

Draw a design to occupy a panel 4 inches by 9 inches. The design may be based on Celtic ornament or on natural forms ornamentally treated.

The design should be suitable for embroidery, lace, embossed-leather, inlay, gesso, or stencilling. State the material for which your design is intended.