## AN ROINN OIDEACHAIS (Department of Education).

BRAINSE AN MHEAN-OIDEACHAIS (Secondary Education Branch).

### LEAVING CERTIFICATE EXAMINATION, 1928.

PASS.

# MECHANICAL DRAWING AND DESIGN. BOYS AND GIRLS.

TUESDAY, 19th 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}\text{-inch high, the word **SCEAL.**Enlarge the letter **S** to 1\frac{1}{2}\text{ inches high.}

Or.

In Roman letters  $\frac{1}{2}$ -inch high the word STORY. Enlarge the letter S to  $1\frac{1}{2}$  inches high.

- \*Q. 2. Indicate what geometrical constructions you would employ in setting out the circular iron grille shown in the diagram, adhering to the figured dimensions.
- \*Q. 3. Construct a scale for a drawing on which 25 feet are represented by  $3\frac{1}{2}$  inches, and show single feet by the diagonal method. Draw to the scale the given elevation of the side of a room.
- \*Q. 4. The plan and elevation of a hut are given. Draw a new elevation, showing the doorway on a line parallel to X¹Y¹ which is a diagonal of the base. Scale 4-inch to 1 foot.
- \*Q. 5. The diagram shows the elevation of an ink-bottle. Draw its plan to the dimensions given.
- Q. 6. Draw a design to occupy a semi-circle of eight inches diameter. The design may be based on Celtic ornament or composed of geometric forms and free-drawn forms combined, or of natural forms ornamentally treated.

State the material or manufacture for which your design is

suited.

Or

Design in black and white a geometric diaper to be composed of both straight and curved lines. Your design should be suitable for inlaid wood, marble, linoleum, mosaic or tiles. Three repeats to be indicated, 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 \( \frac{1}{2} \)-inch high, the word **SCÉAL**.

Enlarge the letter S to 11 inches high.

Or.

In Roman letters 1-inch high the word STORY.

Enlarge the letter S to  $1\frac{1}{2}$  inches high.

- \*Q. 2. A border for embroidery is shown in diagram. Draw three repeats according to the figured dimensions.
- \*Q. 3. Draw the given hexagonal tile full size to the dimension shown.
- \*Q. 4. Copy the Diaper pattern shown in diagram to the dimension given.
- \*Q. 5. Plan and elevation of an octagonal candle-stick are given. Draw the plan and elevation to the figured dimensions and show the ornament on the sloping face **A** of base. The true shape of sloping face with ornament thereon is given.
- Q. 6. Draw a design to suit a square of 7 inches side. The design may be based on Celtic ornament, or composed of geometric and free-drawn forms combined, or of natural forms ornamentally treated.

The design should be suitable for embroidery, lace, embossed leather, gesso, stencilling or repoussé metal.

Or,

Make a design in black and white only, for a border and corner, 3 inches wide, composed entirely of interlacing strap-work, or entirely of natural forms ornamentally treated. At least one full repeat to be shown on each side of Corner.

State the material for which the design is intended.



