

# AN ROINN OIDEACHAIS

(Department of Education).

## BRAINSE AN MHEÁN-OIDEACHAIS

(Secondary Education Branch).

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INTERMEDIATE CERTIFICATE EXAMINATION, 1930.

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# MECHANICAL DRAWING AND DESIGN.

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WEDNESDAY, 18th JUNE.

AFTERNOON, 4 TO 6 P.M.

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**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, and  $1\frac{1}{2}$  inches high draw with pencil, pen, or brush one of the following words:—

The word Sḡḡḡ in Gaelic letters.

Or,

The word SWIM in Roman letters. [10]

\*Q. 2. A sketch is given of a square prism on top of a square slab.

Draw the plan and elevation when the sides of the slab are inclined to the vertical plane at equal angles.

Measurements:—Slab, 2 inches by 1 inch; prism,  $1\frac{1}{2}$  inches by 1 inch. [12]

\*Q. 3. The egg-cup and egg-shape are made up of arcs of circles and straight lines.

Draw to the given dimensions. Your method of finding centres must be clearly indicated. [9]

\*Q. 4. Set out the given pattern to the dimensions shown. [10]

\*Q. 5. The front and end Elevations of a stone cross are given. Draw the front elevation and plan. Scale  $\frac{1}{2}$ -inch to one foot. An ordinary divided rule may be used as a scale. [12]

Q. 6. Make a design to occupy a regular hexagon of 3-inch side.

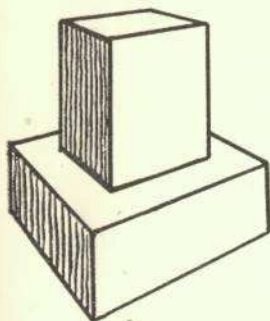
The design may be composed of any type of ornament with which you are familiar, and may be finished in colour or in black and white. [22]

Or,

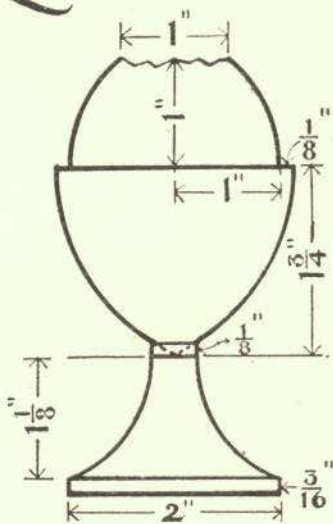
Make a design for an All-over repeating pattern based on squares of 3-inch sides.

The design may consist of Geometric and free-drawn forms combined or of Celtic ornament. Two tones of colour may be used and two repeats shown. [22]

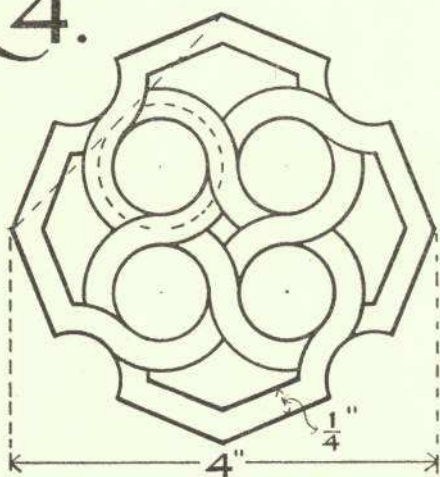
Q 2.



Q 3.



Q 4.



Q 5.

