

**AN ROINN OIDEACHAIS**  
(Department of Education).

**BRAINSE AN MHEÁN-OIDEACHAIS.**  
(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1933.

HONOURS.

**MECHANICAL DRAWING AND DESIGN.**  
**BOYS AND GIRLS.**

WEDNESDAY, 21st 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.

The number of marks assigned to each question is stated in brackets after the question.

Q. 1. Construct a diagonal scale of  $1\cdot75''$  to 100 yards; and then use it to draw the plan of a rectangular playground 193 yards long by 88 yards wide. Measure and write down the distance across the ground from corner to corner. [10]

\*Q. 2. The diagram represents a hand wheel. Draw full size to the dimensions indicated. [10]

\*Q. 3. Copy the Tracery shown in diagram. Show clearly how all the points of contact are determined. [10]

\*Q. 4. The side elevation of a circular tin canister with the lid partly open, is given. Draw its plan.  
Scale 1 inch to 1 foot. [11]

\*Q. 5. The plan, front and side elevations of a notice-board are shown in diagram. Draw a new elevation on a ground-line parallel to  $X^1Y^1$ .  
Scale  $\frac{3}{4}$  inch to 1 foot. [12]

Q. 6. Make a design in black and white for the back and side of a book cover, the side 5 inches by  $3\frac{1}{2}$  inches, the back 1 inch wide. An essential part of the design must be the title, **An t-huir** in Gaelic letters.

Or,

**THE SEA.** in Roman letters.

Your design may be based on Celtic or Floral Ornament.

State the process by which your design could be reproduced.

[22]

## 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.

The number of marks assigned to each question is stated in brackets after the question.

Q. 1. Construct a scale of  $\frac{1}{2}$  inch to a yard, to measure 5 yards and show feet. Using the scale, construct a rectangle whose diagonal is 4 yards 2 feet and one side 2 yards 1 foot.

[8]

\*Q. 2. A border for embroidery is shown in the diagram. Draw two repeats according to the figured dimensions.

[11]

\*Q. 3. Draw the given inlay-pattern by inscribing squares within the circle.

[10]

\*Q. 4. Show by using instruments, how you would set out the geometrical framework of the given diaper pattern. It will be sufficient to complete *half* the diagram.

[10]

\*Q. 5. The elevation of a circular garden-vase is shown in diagram. Draw the elevation to the dimensions given and show how you would project two repeats of the given border on to the band **A**.

[14]

Q. 6. Draw a design for the top of a glove-box to occupy a rectangular panel  $5\frac{1}{2}$  inches by 3 inches. The design may be based on Celtic or Floral ornament, and the word **GLAIBHINNÍ** in Gaelic letters or **GLOVES** in Roman letters should form an important feature of the design.

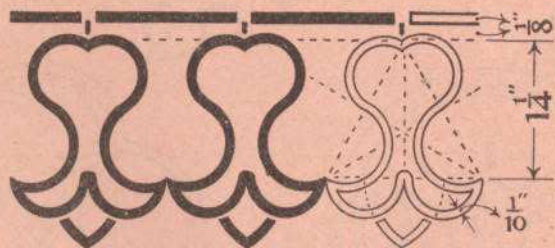
Your design should be suitable for Inlay, Modelled Leather, Stencilling or Painted Ornament.

State the material for which your design is intended.

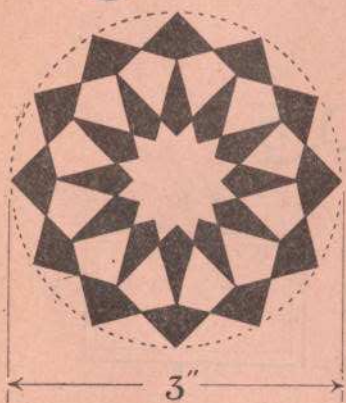
[22]

GIRLS ONLY.

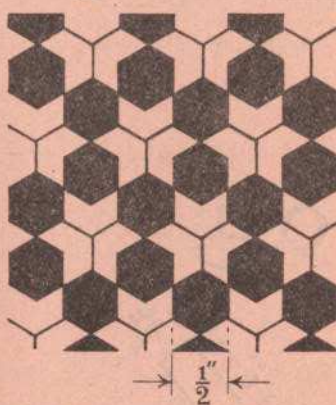
Q2.



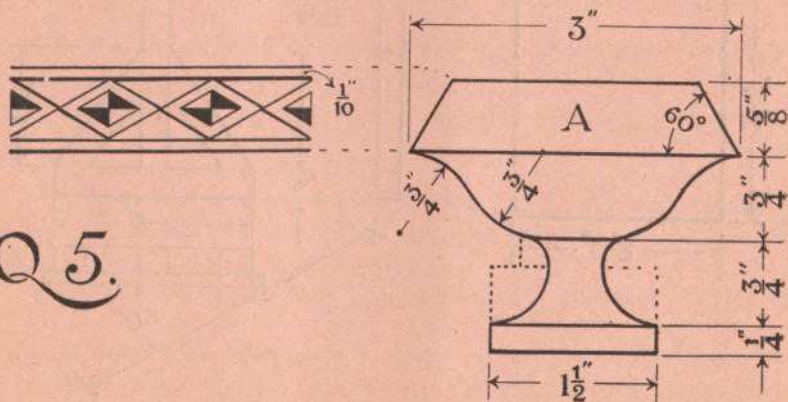
Q3.



Q4.

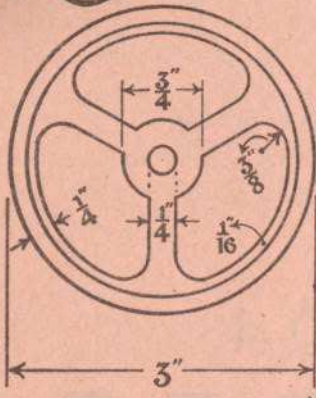


Q5.

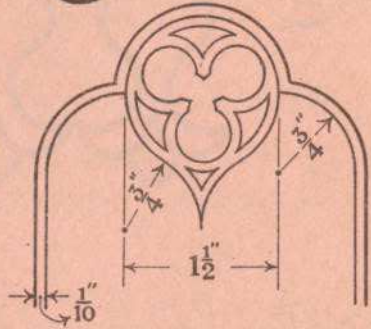


BOYS ONLY.

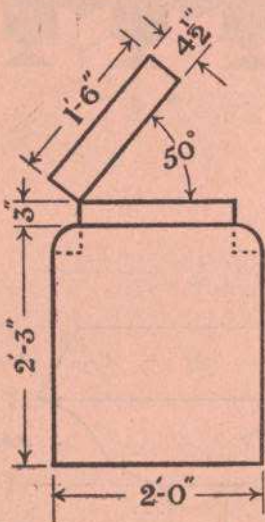
Q2.



Q3.



Q4.



Q5.

