

AN ROINN OIDEACHAIS
(Department of Education).

BRAINNSE AN MHEADHON-OIDEACHAIS
(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1937.

HONOURS.

MECHANICAL DRAWING AND DESIGN.
BOYS AND GIRLS.

TUESDAY 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.

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

*Q. 1. A bathroom fitting to hold a drinking-glass is given in plan and elevation. Draw the elevation to $\frac{1}{2}$ scale according to the dimensions indicated and show in position on the elevation a drinking-glass 4 inches high, $2\frac{3}{4}$ inches wide at the top and 2 inches at the bottom.

[10]

*Q. 2. The diagram is the plan of a hardwood ashtray, the outline of which is made up of circular arcs. Draw full size to the dimensions shown.

[10]

Q. 3. Draw a diagonal scale of 2 inches to 1 yard, to show yards, feet and inches. To this scale construct a triangle having sides:—

AB = 1 yard, 2 feet, 10 inches.

BC = 1 yard, 2 feet, 5 inches.

AC = 1 yard and 3 inches.

[9]

*Q. 4. Draw to a scale of one inch to one foot and to the dimensions shown, a plan and elevation of the cap of the circular gate pier shown in the diagram. Also draw a plan of the section made by the plane **LM** which is at 60 degrees to the horizontal plane and passes through the centre of the spherical top of the cap.

[12]

*Q. 5. The plan and elevation of a pair of doors is given. To a scale of $\frac{1}{2}$ inch to 1 foot and to the dimensions indicated draw a plan and elevation when the door on the left is open at an angle of 45 degrees as shown by the plan on the diagram.

[12]

Q. 6. Draw a design for a Monogram composed of three letters of any style and suitable for reproduction in cast-iron, wrought-iron, or any craft. The craft and material are to be stated and your drawing is not to exceed 4 inches in its longest dimension.

[22]

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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. Draw, full size, to the dimensions indicated, the main geometric construction of the given pattern. [10]

Q. 2. Draw a diagonal scale of 2 inches to 1 yard, to show yards, feet and inches. To this scale construct a triangle having sides :—

AB = 1 yard, 2 feet, 10 inches.

BC = 1 yard, 2 feet, 5 inches.

AC = 1 yard and 3 inches. [9]

*Q. 3. A simplified plan of a desk penholder is given, draw full size to the dimensions indicated. [10]

*Q. 4. **X** and **Y** are details of crochet work.

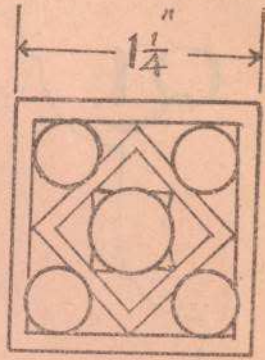
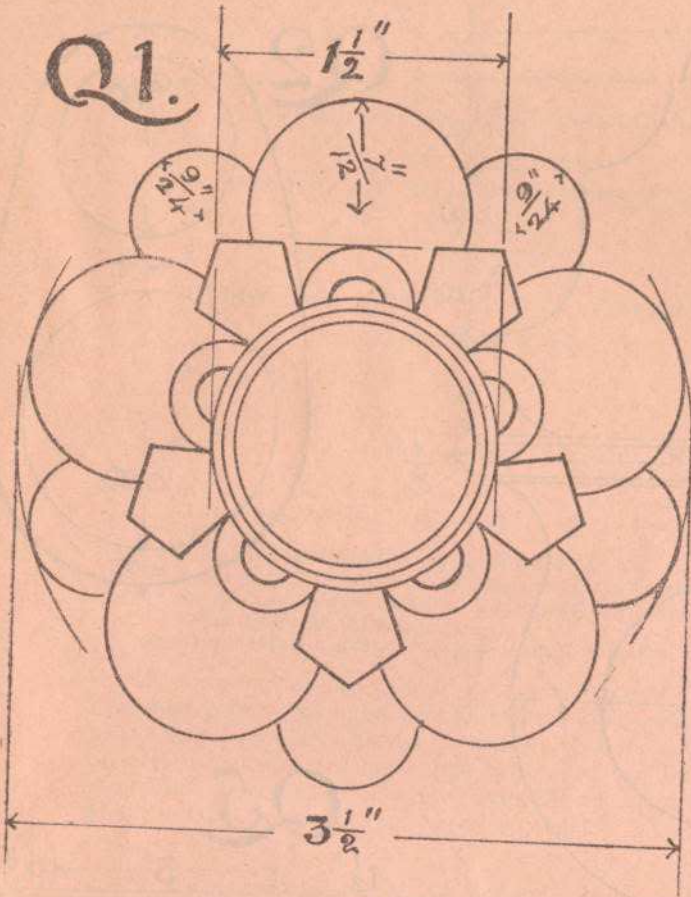
Draw full size to the dimensions indicated, a border or an all over pattern based on one or both of the given details. [10]

*Q. 5. The elevation of a hexagonal box 3 inches high is given. Draw full size according to the dimensions indicated, and repeat the ornament shown on the front face, on the face marked **A**. [14]

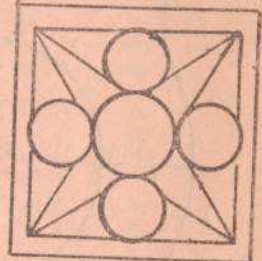
Q. 6. Draw a design for a Monogram, composed of three letters of any style and suitable for reproduction in embroidery, leatherwork or any other craft. The craft and material is to be stated and your drawing is not to exceed 4 inches in its longest dimension. [22]

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Q1.

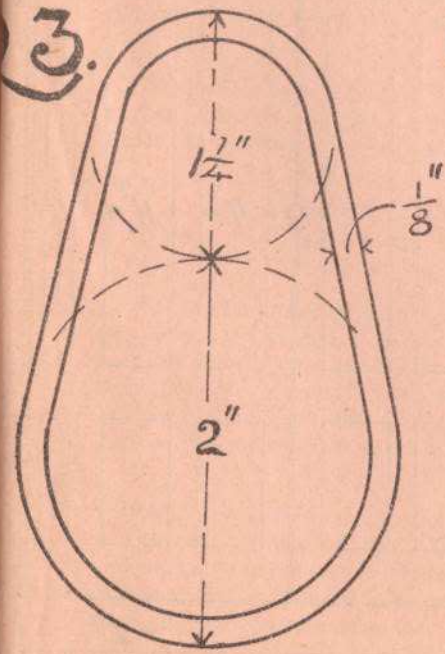


X.
Q4.

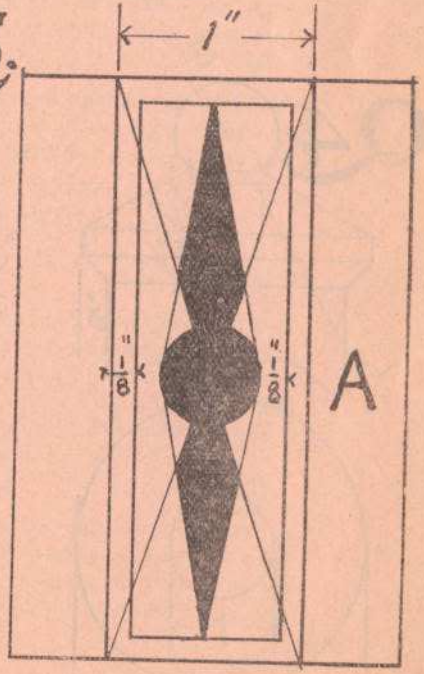


Y.

Q3.



Q5.



BOYS ONLY.

