

AN ROINN OIDEACHAIS
(Department of Education).

BRAINSE AN MHEÁN-OIDEACHAIS
(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1931.

PASS.

MECHANICAL DRAWING AND DESIGN.
BOYS AND GIRLS.

TUESDAY, 16th 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. Draw the four given circles using the figured radii. The necessary construction lines and points of contact must be clearly indicated. [10]

Q. 2. Two sides of a regular polygonal slab (2' thick) are each 10' in length, and they meet at an angle of 135° . Draw the plan and elevation of the slab with one side parallel to the vertical plane of projection. Scale 1" to 8', which need not be drawn. [9]

*Q. 3. The diagram shows a perspective drawing of three steps. Draw plan and elevation with the square base resting on the H.P. and the edge AB inclined at an angle of 30° to the V.P. Scale $\frac{1}{2}$ " to 1'. [13]

*Q. 4. Draw accurately, with instruments, the given shape, using the figured dimensions and showing full construction lines. The arcs have the same centre. Scale 1" to 1'.

Within this shape space in suitable proportion the word "STOP" in Irish letters.

Or,

The word "STOP" in Roman letters. [11]

*Q. 5. Draw, using instruments, the example shown in diagram. The height AB to be 3 inches and all other measurements in proportion. [10]

Q. 6. Make a design to fill a rectangle 5 inches by 3 inches. The figures 1931 are to form an important part of the design. Your ornament may be Celtic, Geometrical or Floral, and finished in two colours or in black and white. [22]

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Questions marked (*) have accompanying diagrams.

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

*Q. 1. Draw the shape to the dimensions given, and within it, space in suitable proportion the word “*ΝΟΡΑ*” in Irish letters

Or

The word “*NORA*” in Roman letters. [9.]

*Q. 2. A lamp-shade, in the form of a truncated right square pyramid, is made of four frames of the shape and dimensions shown on diagram. Draw plan and elevation of the lamp-shade with base on the H.P., and two edges at right angles to the V.P. Scale 1 inch to 1 foot. [13.]

Q. 3. Draw the curve of an ellipse by means of intersecting lines, the major axis $3\frac{1}{2}$ inches and the minor axis $2\frac{1}{2}$ inches. It will be sufficient to complete one half of the ellipse. [10.]

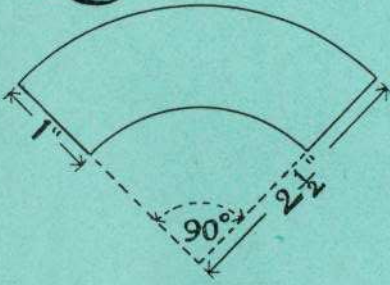
*Q. 4. Enlarge the given diagram making the length of the side 3 inches and all other measurements in proportion. Your method of construction must be clearly indicated. The bands are the same width throughout. [10.]

*Q. 5. Set out what you consider the necessary construction lines for the given pattern, using the figured dimensions. Complete at least one half of the pattern. [11.]

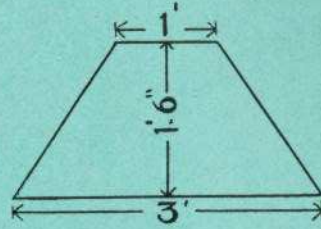
Q. 6. Make a design for an all-over pattern based on rectangles 4 inches by 2 inches. Your ornament may be Celtic, Floral or Geometrical, and finished in two colours. One repeat should be complete and the main lines of two adjacent repeats shown. [22.]

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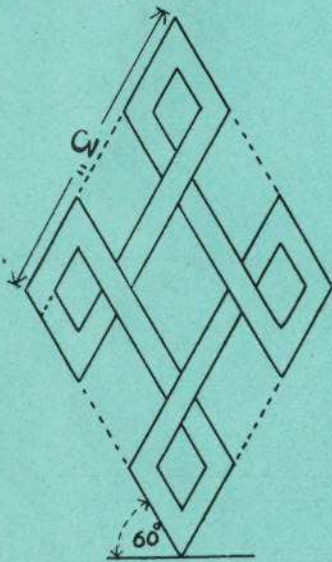
Q1.



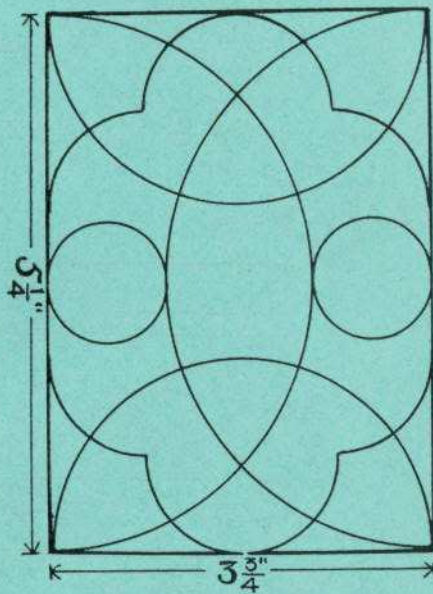
Q2.



Q4.



Q5.



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