AN ROINN OIDEACHAIS

(Department of Education).

BRAINSE AN MHEADHON-OIDEACHAIS

(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1925

PASS

MECHANICAL DRAWING AND DESIGN. BOYS AND GIRLS.

TUESDAY, 23rd 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 questions to be attempted.

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.

- 1. At the middle of the top of your drawing-paper space out and draw the words and figures 'Drawing Pass, 1925,' or 'Unibeacc, 1925,' in capital letters and figures half an inch high.
- 2. Draw a diagonal scale of two inches to one foot to show feet, tenths, and hundredths of a foot, and read two feet.
- *3. A dimensioned plan of an equilateral triangular prism is given. The prism rests on the horizontal plane on one of its rectangular faces, two sides of which make 45° with the vertical plane. Draw the plan and elevation of the prism to a scale of two inches to one foot, and show the plan of a section made by a horizontal plane cutting the prism half way between the base and the upper edge.
- *4. A diagram of a brass casting used as a cover for an overflow-pipe from a tank is given. Make a drawing, full size, of the cover to the dimensions shown.
- *5. Drawings of a brass cup-hook are given. Draw full size to the dimensions shown the elevation of the circle A shown in dotted line, and the circle B, when the plan of the hook is at 45° with the vertical plane, as shown by the line CD.

Design.

6. Make a design for an all-over diaper pattern suitable for tiles. Each diaper to be three inches square. One complete unit of pattern to be shown and the main lines of two others.

Make a design to suit an equilateral triangle 8 inches side. The design may be composed entirely of geometric forms, based on Celtic ornament, or on natural forms ornamentally treated. State the material or manufacture for which your design is suited.

GIRLS ONLY.

NOTE.—The use of mathematical instruments, protractors, scales, T and set squares, and drawing-boards is allowed.

ALL questions to be attempted.

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.

- 1. At the middle of the top of your drawing-paper space out and draw the words and figures 'Drawing Pass, 1925,' or 'Universe, 1925,' in capital letters and figures half an inchhigh.
- 2. Draw an ellipse having its major axis three inches and its minor axis two inches long.
- *3. An embroidered pattern composed of circles is given. Draw full size according to the dimensions shown.
- *4. Draw the given pattern full size according to the dimensions shown.
- *5. Given dimensioned drawings of a candle-shade (which is a truncated octagonal pyramid) including the true shape of one face A. Draw full size according to the dimensions indicated, and show the elevation of the square O on the face S in elevation.

Design.

6. Make a design for an ornamental initial letter for use in an illuminated address or an illuminated page.

Or,

Make a design for an ornamental border suitable for reproduction as embroidery, damask, lace, or crochet. The design may be composed entirely of geometric forms or of geometric and freely-drawn forms combined.

Q4. Q3. <u>3</u>" Q5. 80

77

Q3. Q4. 1.1354 $2\frac{1}{2}$ B Q5. 45°

41.1

t A