# AN ROINN OIDEACHAIS

(Department of Education).

BRAINNSE AN MHEADHON-OIDEACHAIS (Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1940.

### PASS.

## MECHANICAL DRAWING AND DESIGN.

MONDAY, 17th 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.

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.

ONLY FOUR questions to be attempted. TWO from SECTION A. and TWO from SECTION B.

### SECTION A.

Two questions only to be attempted in this Section.

(The questions in this Section must be solved accurately with the aid of drawing instruments. All lines used in constructions should be clearly shown.)

\*Q. 1. Draw the shape to the dimensions given, and within it draw in suitable proportions, the words "CÉAD DUAIS" in Gaelic letters one inch high, or the words "FIRST PRIZE" in Roman letters one inch high.

The two words are to be spaced out and at least half of the letters completed.

[20]

\*Q. 2. An outline dimensioned diagram of a clock is given. Draw the diagram to a scale of **3** inches to **1** ft.

An ordinary divided rule may be used as a scale.

Show clearly how the points of contact of the circles are determined.

[20]

\*Q. 3. The figure shows the plan and elevation of a mirror and stand. Draw a new elevation on the ground line X' Y'.

[20]

#### SECTION B.

Two questions only to be attempted in this Section.

Q. 4. Draw a design to occupy a regular hexagon of  $2\frac{1}{2}$  inches side. The design may be based on Celtic ornament, or on Natural Forms ornamentally treated.

Two tones of one colour may be used, or the design may be completed in black and white.

[30]

\*Q. 5. Make a design to fill the shape shown on the diagram. You may select any style of ornament and finish the design in two or three colours.

(Colour MUST be used in answering this question.)

[30]

Q. 6. Design for display in a shop window a Showcard to advertise TOYS. Use not more than four colours. The word "TOYS," in Roman Lettering should be embodied in the design.

The design is to be rectangular in shape, 6 inches by 4 inches.

(Colour MUST be used in answering this question.)

[30]

BOYS ONLY.

