

AN ROINN OIDEACHAIS

(Department of Education).

BRAINSE AN MHEADHON-OIDEACHAIS

(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1925

PASS

PHYSICS.

WEDNESDAY, 24th JUNE.—MORNING, 10 A.M. TO
12 NOON.

Explanatory sketches should be given where necessary.

[All six questions may be attempted.]

1. What do you understand by photometry? Explain the use of any photometer with which you are acquainted.

2. Show how a magnified image of an object can be obtained by the use of a two lens microscope.

3. Describe Atwood's machine. How would you use it to show the relation between the acceleration of a body and the force acting on it?

4. What do you understand, in Mechanics, by power? Watt, the inventor of the steam engine, found that a horse by means of rope and pulley could raise 150 lb. weight a height of 220 feet in one minute. What power was the horse exerting?

5. Describe the construction and use of a gold leaf electroscope. How would you use it to determine the nature of the charge on an electrified body?

6. Explain what you understand by the E.M.F. of a cell.

The E.M.F. of a cell is 1.4 volts, and its resistance is 1 ohm. Its terminals are joined to a wire of 6 ohms resistance. What is the difference of potential between the terminals?