AN ROINN OIDEACHAIS
(Department of Education).

BRAINNSE AN MHEADHON-OIDEACHAIS
(Secondary Education Branch).

INTERMEDIATE CERTIFICATE EXAMINATION, 1935.

LOWER COURSE.

SCIENCE (Syllabus B).

MONDAY, 17th JUNE.—AFTERNOON, 4 TO 6 P.M.

[Not more than *six* questions to be attempted. All the questions are of equal value. Illustrate your answers wherever possible].

1. Describe how the presence of convection currents (*a*) in liquids (*b*) in gases may be determined.

Mention two cases in which convection currents serve useful purposes.

2. How would you show by experiment that evaporation lowers the temperature? Discuss this in relation to body temperature.

3. What do you understand by temperature? Describe how you would determine the temperature of the human body. What is the name of the instrument you would use? Draw a sketch of the instrument.

4. The following substances are burned separately in air (*a*) calcium; (*b*) carbon; (*c*) sugar; (*d*) a piece of potato. Describe and explain as fully as you can what happens in each case.

5. How would you prepare oxygen? Sketch the apparatus you would use. Compare the properties of oxygen with those of hydrogen.

6. State the composition of ordinary air. How would you show the presence in air of any one of its constituents, and describe the properties of any two of them.

7. Describe the structure of a grain of wheat or barley or any cereal. Also describe its growth until it reaches the seedling stage.

8. Describe, with sketches, how young potatoes are formed in the soil from the planted tuber.

9. Name the constituents of blood. State the functions of any two of them.

10. Describe, with the aid of a sketch, the structure of the skin. State the functions of the skin.

11. Name the food constituents which are found in milk. State the functions of each in the body.

12. How are the following formed (*a*) rain ; (*b*) fog ; (*c*) dew ; (*d*) snow ?