

AN ROINN OIDEACHAIS

(Department of Education).

BRAINSE AN MHEAN-OIDEACHAIS

(Secondary Education Branch).

INTERMEDIATE CERTIFICATE EXAMINATION, 1932.

SCIENCE (Syllabus D).

FRIDAY, 3rd 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. How would you show that air has weight and exerts pressure? What causes the pressure of the air to vary?
2. What is meant by (a) blood heat, (b) latent heat, (c) specific heat? Explain how each is measured.
3. What is meant by evaporation? What conditions favour the evaporation of a liquid? What difference is there between quiet evaporation and boiling?
4. Describe an experiment to show convection currents in air. Explain how ventilation may be obtained by convection.
5. What is meant by an oxide? Describe the preparation and state the properties of any oxide you have examined.
6. What are the distinctive properties of acids? Name three acids used for household purposes and state their uses.
7. What are the causes of hardness in water? How may permanent hardness be removed? What are the objections to hard waters for domestic purposes?
8. Describe carefully what happens when the following are heated:—(a) wood in a test-tube, (b) magnesium in an open crucible.

9. Explain how the body gains and loses heat. Why does the temperature remain constant in health?

10. State the differences between arterial and venous blood. How would you arrest bleeding from a deep cut in the wrist?

11. Describe briefly by means of sketches any three examples of lever action in the movements of the body. In each case indicate the relative positions of the power, resistance and fulcrum.

12. Explain the cleansing action of soap. Why does hot water act better than cold for cleansing purposes?