

AN ROINN OIDEACHAIS

(Department of Education).

BRAINSE AN MHEAN-OIDEACHAIS

(Secondary Education Branch).

INTERMEDIATE CERTIFICATE EXAMINATION, 1926.

SCIENCE (Syllabus D).

TUESDAY, 22nd JUNE.—MORNING, 10 A.M. TO 12 NOON.

[Not more than *six* questions are to be attempted.]

1. How would you determine :—(a) the length of your foot ; (b) the area of a circular table-top ; (c) the density of milk ? Give a possible result in each case.

2. Describe how you would construct a simple mercury barometer. How would you show that the space above the mercury is, or is not, a vacuum ? To what are changes in the height of the barometer due ?

3. For what purposes is evaporation used in the laboratory ? Describe in detail how you would carry out an experiment involving evaporation. What do you regard as a good "drying day" ?

4. Describe how you would construct a thermometer. State the temperature of (a) the healthy human body ; (b) a hot bath ; (c) water when "simmering" ; (d) a living-room.

5. What is meant by a saturated solution ? How would you prepare crystals from a solid substance given to you in the form of a powder ?

6. State the properties of an oxide of each of the following :—carbon, hydrogen, magnesium, phosphorus. How would you prepare any one of these oxides ?

7. Explain briefly the following, indicating the nature of the action that takes place :—(a) the souring of milk ; (b) the cleansing action of soap ; (c) the corrosion of aluminium cooking vessels.

8. What is meant by digestion ? Explain the action of saliva on starchy foods. How may its action be retarded ? Where and how does the main digestion of carbohydrates occur ?

9. Show by means of a sketch the course of the blood from the right auricle until it reaches the left ventricle. What changes occur in the blood in its course ?

10. What first aid would you employ in the following accidents :—(a) a cut with a dirty knife ; (b) a scalded forearm ?