

AN ROINN OIDEACHAIS

(Department of Education).

BRAINNSE AN MHEADHON-OIDEACHAIS

(Secondary Education Branch).

INTERMEDIATE CERTIFICATE EXAMINATION, 1936.

LOWER COURSE.

SCIENCE (Syllabus D).

FRIDAY, 19th 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. Give five examples of appliances in which use is made of the principle of the lever and explain the advantage of each one of them.
2. Give the different methods of heating a living room. State the advantages and disadvantages of each.
3. Describe briefly the circulation of the blood in the body. What changes occur in the blood in the capillaries?
4. What connection is there between latent heat and (a) cooking by a steamer, (b) the regulation of body temperature, (c) the climate of western Ireland?
5. Describe the common methods of ventilating a room. Explain why the air moves in the room.
6. Describe how your knowledge of science would aid you in the purchase of (a) summer clothes, (b) winter clothes.
7. A litre flask containing ordinary air and iron nails is sealed up and allowed stand for some days. Will any change take place in
 - (a) the weight of the flask and its contents,
 - (b) the chemical properties of the gas,
 - (c) the composition of the iron nails,and, if so, what are the changes?

8. Describe briefly breathing in the human body. What effect has exercise on the rate of breathing?

9. What do you know of the composition of water? Describe any demonstration you have seen to illustrate the composition of water.

10. What is density? How would you determine the density of (a) a stone (b) petrol?

11. What is meant by (a) specific heat (b) temperature (c) frost (d) boiling point (e) pressure of the atmosphere?

12. What is the effect of acids on metals? State the properties of any new substances that may be formed.