

**AN ROINN OIDEACHAIS**  
(Department of Education).

**BRAINNSE AN MHEADHON-OIDEACHAIS**  
(Secondary Education Branch).

---

**INTERMEDIATE CERTIFICATE EXAMINATION, 1935.**

---

**LOWER COURSE.**

**SCIENCE (Syllabus D).**

*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 any experiment you have seen performed which proves that oxygen is a constituent of atmospheric air.

What are the properties of oxygen ?

2. In what way does the skin act as a regulator of body temperature ?  
How is heat gained and lost by the body in health ?

3. Describe two pieces of apparatus used for the accurate measurement of liquid volume. Which of these would you use if you were asked to find the number of cubic-centimetres in (a) a wine-glass; (b) a pint measure ?

4. Describe the instruments you would use to find :

- (a) the pressure of the atmosphere ;
- (b) the temperature of your body ;
- (c) the specific gravity of milk.

5. What is the boiling point of a liquid ?

Carefully describe an experiment which proves that the boiling point of a liquid is affected by dissolved solids.

6. Where is the liver situated ? Describe its shape and appearance. What are its functions ?

7. What is a saturated solution ?

How would you show that hot water is generally a better solvent than cold water ?

8. State the general characteristics of (a) an acid ; (b) an alkali. Name two of each which are used for domestic purposes.

How may a salt be prepared in the laboratory ?

9. Describe the changes that are produced in the air of a small room in which a number of people are congregated. What experiments can be performed to show the essential differences between expired and pure air ?

10. Describe, using a sketch, the conditions under which a liquid may be syphoned from one vessel to another. Why does the liquid flow upward in the syphon tube ?

11. Why does water exposed in an open vessel gradually disappear into the air ? What atmospheric and other conditions influence the rate of its disappearance ?

12. Describe any experiment which shows that heat may be transferred by conduction. Why does iron feel colder than wood ?