

AN ROINN OIDEACHAIS

(Department of Education).

BRAINSE AN MHEADHON-OIDEACHAIS

(Secondary Education Branch).

LEAVING CERTIFICATE EXAMINATION, 1925

HONOURS

CHEMISTRY.

TUESDAY, 23rd JUNE.—MORNING, 10 A.M. TO 12 NOON.

[All six questions may be attempted. Illustrate your answers by diagrams wherever possible.]

1. Describe the preparation of two oxides of carbon, and show how each may be converted into the other. What volume of carbon monoxide will be produced by the reduction of 100 litres of carbonic anhydride?
2. Describe and explain the action of hydrochloric acid upon litharge and upon red lead. State what occurs when chlorine is passed into (a) a solution of potassium iodide, (b) a solution of sulphur dioxide in water.
3. Describe experiments to determine the composition of water by weight and by volume.
4. How may the vapour density of a volatile substance be determined? Sketch the apparatus employed, and state the precautions necessary for obtaining accurate results.
5. Explain the statement: 'The properties of elements are a periodic function of their atomic weights.' Classify a number of elements in accordance with the 'Periodic Law.' Point out the services that the Periodic classification has rendered to chemistry.
6. Describe the preparation of acetaldehyde and acetic acid from ethyl alcohol. Give equations, and explain the changes that occur.