- 1. Explain allusions in the above passage.
- 2 Ich Mein'. What rule is here violated?
- 3. Hurtig, Nauc. Supply synonyms.
- 4. Her. What would be its position in prose?
  - (b) Ruoni.

Und war's mein Bruder und mien leiblich Kind.

Es kann nicht seyn; 's ist heut Simons und Inda.

Da rast der See und will sein opfer haben.

16.

- 1. Leiblich Kind. Supply the adjective termination.
- 2. Es Kann, etc. Notice a peculiarity in the construction.

- 3. Der See. Compare to die See.
- 4. Simons and Judac.

Give the date.

(c) ROSSELMAN.

Bei diesem Licht, . . . der Menschen.

- 1. Licht. Give its two plural forms and their meaning.
- 2. Wir wollen . . . Gefahr. Rewrite in prose order.
  - 3. Eher den Tod. Fill up the ellipsis.
- 4. Firehten. Conjugate its present and imperfect tense and give the past participle.
- 5. Hichsten. Give its positive and superlative degree.

## NATURAL SCIENCE.

H. B. SPOTTON, M.A., BARRIE, EDITOR.

## UNIVERSITY OF LONDON.

MATRICULATION EXAMINATION: JUNE, 1884.

Friday, June 20.-Asternoon, 2 to 5.

CHEMISTRY.

Examiners-Prof. Dewar, M.A., F.R.S.; Prof. Thorpe, Ph.D., F.R.S.

- r. Why was oxygen gas so called? What objections may be urged against the name?
- 2. Hydrogen is found to unite with nitrogen in the proportion of I to  $4\frac{2}{3}$  by weight: hence since the atomic weight of hydrogen is taken as unity that of nitrogen was at one time assumed to be  $4\frac{2}{3}$ . Why do we to-day regard it as I4?
- 3. How may hydrochloric acid gas be obtained? How could you prove that it contains chlorine? What volume of chlorine is

contained in ten litres of hydrochloric acid

- 4. How could you prepare sulphuretted hydrogen gas? What facts have served to show that its formula is H<sub>2</sub>S? The gas is inflammable; what substances are formed when it burns in the air? State precisely what happens when sulphuretted hydrogen is passed through aqueous solutions of the following bodies: AgNO<sub>3</sub>; SnCl<sub>2</sub>; Fe<sub>2</sub>Cl<sub>6</sub>; Fe<sub>5</sub>O<sub>4</sub>: BaCl<sub>2</sub>: KNO<sub>2</sub>.
- 5. Give examples of combination between gaseous substances, and state the volume of the gaseous product in terms of the volume of the uncombined gases in each illustration. What is the meaning of the term Combining Proportion by Volume.
- 6. Give a general account of the physical and chemical processes which are taking place in the flame of a candle. Describe the structure and properties of flame.