

# UNIVERSITY OF MANITOBA.

EXAMINATION IN MEDICINE, 1896.

## GENERAL CHEMISTRY.

1. Give examples of the chemical processes (1) Combination (2) Decomposition (3) Double Decomposition:  
(a) Explain, giving formula, to which of these processes the changing of lime into slaked lime belongs.
2. What are Reducing Agents? Give examples.
3. Name the oxides and oxyacids of nitrogen.  
(a) Describe the mode of making and properties of nitrous oxide.
4. What is the action of heat on orthophosphoric acid?
5. A solution of sulphuric acid contains 60 grammes of  $H_2SO_4$  per litre. What weight of Barium sulphate would be obtained from 30 centimetres of this solution by adding to it an excess of a soluble Barium salt?  
 $Ba = 137$        $S = 32$
6. How is sulphuretted hydrogen prepared? What substances, giving formulæ, are formed when it is passed through aqueous solutions of (a) corrosive sublimate, (b) bluestone, (c) arsenious acid?
7. Trace the changes taking place in the transition of cane sugar to acetic acid, and give formulæ.  
(a) What is the difference between graphic, rational, and empirical formulæ? Give examples.
8. What is chloral? How prepared? Give formula. What is chloral hydrate?
9. What are the results of the oxidation of primary, secondary and tertiary alcohols, respectively?