

UNIVERSITY OF MANITOBA

EXAMINATIONS, MAY, 1897.

FIRST YEAR.

CHEMISTRY.

1. Define: Hydrate, base, anhydride, acid, alkali, molecule, atom.
2. What is the difference between water of constitution and water of crystallization? Give examples of salts containing the first, second and both together.
3. Give constitutional formula of hydrofluoric and nitric acids, and describe the preparation and chemical and physical properties of each.
4. How would you prepare the following gases: Chlorine, carbon, dioxide and sulphuretted?
5. Give preparation, formulas, chemical names and tests to distinguish between (a) calomel and corrosive sublimate; (c) the two chlorides of iron.
6. What is water?
7. How much oxygen could you obtain from 16.9 grammes of $Ba O_2$ at $91^{\circ}c$ and 770 mm Bar. $Ba=137$. $O=16$.