

attentive to business, our every duty, and trying to be honest in not encroaching upon the physicians' domain, and all things will be well "to him that waits." I have great faith in abuses correcting themselves, and this will certainly be the result as soon as the novelty, with the physicians, of self-compounding has worn off and the additional work becomes not only non-appreciative, but also a non-re-munerative trouble and bother. Doctors, no more than druggists, like to "work for glory only," and such they will find their new undertaking to be before they have advanced far on their course.—*Pharmaceutical Review*.

University Examinations.

The following are the papers submitted in the Department of Pharmacy, at the examinations recently held at the University of Toronto:—

Practical Pharmacy.

Examiner—CHAS. F. HEEDNER, PH. G.

1. Prepare 56.7 c. m.³ of Syrup of Iodide of Iron by the following formula, submitting a report in accordance with the subjoined synopsis.

Syrupus Ferri Iodidi.

Iron wire	90.72 Grams.
Iodine	173.225 Grams.
Sugar	2480.625 Grams.
Distilled water	1163.25 c. m. ³

Product 2835.0 c. m.³

Sugar and distilled water 708.75 c. m.³ to make a syrup. Make a solution of ferrous iodide using distilled water 266 c. m.³; add syrup 177.25 c. m.³, heat to 100° C. and boil gently for ten minutes. Filter the solution into the remainder of the hot syrup; wash residue and filter with 177.25 c. m.³ distilled water, and resort to the proper expedient to make the resulting syrup permanent.

REPORT 1.

Syrupus Ferri Iodidi.

Amount of each ingredient used:

Iron wire	Grams.
Iodine	do
Sugar	do

Product. c. m.³

Solution of ferrous iodide, how made?...
Added to render syrup permanent.....

Illustrate action of the preservative agent used by means of a chemical equation.

2. Determine the specific gravity of the liquid submitted.

REPORT 2.

Specific Gravity.

Liquid marked	
Weight of an equal volume of water...	
Specific gravity	

Material Medica, Posology and Pharmacognosy

Examiner—J. T. FOTHERINGHAM, B.A., M.B., M.D., C.M.

1. Write full notes on the drug *Senna*, giving Definition, Nat. Ord., Source,

Habitat, a short description with varieties and common impurities, chief constituents, medical properties, preparations and their doses.

2. Write a similar series of notes on *Cantharides*.

3. Give Nat. Ord., Botanical (or other) Source, part used, and active principle if any, of: Aconitum, Ac. Salicylicum, Gossypium, Myrrha, Caryophyllum, Hamamelis, Assafoetida, Hirudo, Ol. Cadinum, and Scilla.

4. Give preparations and their doses of: Zingiber, Galla and Creasotum.

5. Write a detailed account of the cultivation of *Papaver Somniferum*, the production of Opium, and its commercial relations.

6. *Cinchona*. How many varieties? Name three important ones. Give Habitat, and special climatic conditions determining value of bark. Name chief alkaloids and state percentage of the whole in average bark.

7. Give gross appearance of *Cinchona*, distinguishing red from yellow and young from old barks. Describe fully the microscopic appearance of a transverse section of either red or yellow bark, distinguishing old from young bark, and giving drawings where possible.

Botany.

Examiner—J. J. MacKENZIE, B.A.

1. Give a short description of the structure and functions of stomata.

2. Describe fully the fibro-vascular bundles in a typical monocotyledon.

3. Distinguish between an albuminous and an exalbuminous seed, and outline briefly the process of germination in both cases.

4. What are the essential and what the non-essential parts of the flower? Give fully the functions of the latter.

5. Give an account of the development of *Claviceps purpurea* (ergot).

6. Describe the specimen submitted.

Chemistry.

Examiner—GRAHAM CHAMBERS, B.A., M.B.

1. State "Boyle's law," and describe an experiment in support of it.

2. The elements Chlorine, Bromine, and Iodine are said to belong to the same natural family. Explain fully the meaning of this statement.

3. Write an equation illustrating the preparation of Nitrous Oxide from Ammonium Nitrate.

What volume of Nitrous Oxide measured at 17°C and 740^{mm}. Bar. can be prepared from 25 grammes of Ammonium Nitrate?

4. Give an account of the Chemistry of Mercury.

5. Write equations illustrating the action of:

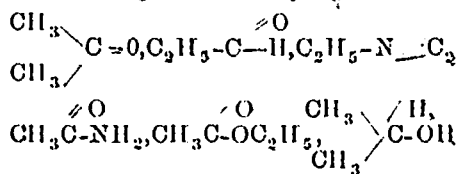
(a) Hydrogen Sulphide on a solution of Ammonia:

(b) Hydrogen Sulphide on a solution of Ferric Chloride.

(c) Potassium Hydrate on a solution of Iodine.

(d) Potassium Hydrate on a solution of Aluminium Sulphate.

6. Name the substances represented by the following formulae: C₄ H₈.



(b) State the group of organic substances to which each of the above compounds belong.

7. Explain what is meant by the term Alcohol.

(b) Write equations illustrating the action of oxidizing agents upon primary Alcohols.

8. The analysis of an organic compound gave the following result:

Carbon	55.5%
Hydrogen	9.1
Oxygen	36.36
	100.

Calculate its empirical formula: If the specific gravity of its vapor = 4.4 (Hydrogen = 1), what is its molecular formula.

Practical Dispensing.

Examiner—CHAS. F. HEEDNER, PH. G.

NOTE.—Candidates will dispense the following five prescriptions with neatness, accuracy, and dispatch, labelling and finishing the medicines, as if designed for patients. The order in which each dispensing desk is left, and the cleanliness of utensils will be rated.

MR. BARTLETT, Hillside Villa.

R Plumbi acetatis, gr. xx.

Zinci sulphatis, gr. xxviii.

Misce. In pulveres octo haec quantitas dividenda est. Partitio fiat exactissima. Sig. More dictu utend.

MISS WILLIAMS.

R Emp. cantharides, qs.

Ft. empl. epispastica pro post aurem sinistrem, super emplastr. adhesiv. extend, Sig. Usque ad vesicam applicand.

MR. JACKSON.

R Ext. belladonnae, gr. j.

Plumbi acetatis, gr. iss.

M. Ft. suppos. Mitte tales tres.

Sig. Statim utend. et repet. p. r. n.

MRS. BLATCHFORD'S CHILD.

R Olei ricini f ʒij.

Pulv. acaciae, q. s.

Aquam ad f ʒiv.

Misc. ft. mist.

Sig.—Capiat, cochl. parv. ij. omni, quartus hor. donec alvus responderit.

MAST. MELVIN GREEN.

R Pulv. rhei. 0.650

Sodii bicarb. 1.300

Olei menthae ppt. 0.325