

Ontario College of Pharmacy.

SEMI-ANNUAL EXAMINATIONS, MAY,
1896.

DISPENSING.

Examiner—W. MURCHISON. Time allowed, three hours.

MRS. ELY.

- R Emulsio Ol. Ricini..... 50%
Mitte..... 3ii.
Sig. cap. coch. magn. dimid. q. q. h

MR. BEGG.

- R Emp. Bellad. (reniform) 1½ x 4 in.
Fiat emplastrum, super alutam extendum.
Applicetur regioni renum pro septem dies.

MISS FINN.

- R Mitte Emp. Lyttæ pro dextro auris.
Usque ad vesicat bene appl.

J. DUFF.

- R Plumbi Acetatis..... gr. iii.
Acidi Tannici..... gr. ii.
Ol. Theobrom. q. s. ut fiat, suppos.
Mitte tres.
Sig. unum statim utend.

MISS MOSS.

- R Ferri et Quin. Cit..... 3ss.
P. Glycyrrhizæ rad..... gr. x.
Ft. massa et divide in pil. decem.
Sig. Cap. unum p. c. s. o. s.
Values—25, 20, 15, 20, 20.

CHEMISTRY.

Examiner—PAUL L. SCOTT. Time allowed, two hours.

1. Define the terms: Molecule, Isomeric, Isomorphous, Soap, Anhydride, Amalgam, Glycerol, Critical Temperature.

2. Describe, giving equation, the usual method of preparation of Mercuric Chloride. Give characters and tests for identity and purity of this salt, stating what is indicated by each test.

3. The following mixtures are exploded in a Eudiometer tube:

- (a) One volume of Oxygen and one of Carbon Monoxide.
(b) One volume of Oxygen and two of Carbon Monoxide.
(c) One volume of Oxygen and three of Carbon Monoxide.

State, in each case, what gases and what volume of each, measured at the original temperature and pressure, will be contained in the Eudiometer after explosion.

4. Show by means of equations the action of

- (a) Ferrous Sulphate upon Potassium Carbonate.
(b) Metallic Sodium upon Water.
(c) Iodine upon Caustic Potash in solution.
(d) Phosphorus upon boiling Milk of Lime.
(e) Nitric Acid and Steam upon Sulphur Dioxide.
(f) Hot Sulphuric Acid upon Charcoal.

5. What weight of a solution, containing 10% by weight of Ammonia Gas, will be required to precipitate all the Iron from 560 c.c. of a solution of Ferric Chloride, containing 200 gm. of Metallic Iron to the litre? Show work.

6. What are the Paraffins? Give general formula of the series, and state in

general terms in what respects the members differ chemically and physically from one another.

7. Explain briefly the principles upon which Spectrum Analysis is based. Under what circumstances will bright and dark lines respectively be produced?

8. Describe the preparation and purification of Chloroform or of Ether, explaining, with or without equations, the nature of the reactions which occur.

9 and 10. Recognition of specimens and oral examination.

Values—12, 10, 8, 12, 10, 8, 10, 10, 20.

PHARMACY.

Examiner—F. T. HARRISON. Time allowed, two hours.

1. Give practical notes on the preparation of three of the following: Wine of Ipecacuanha, Fowlers' Solution, Strong Solution of Acetate of Ammonium, Syrup of Iodide of Iron.

2. Enumerate the impurities or adulterants likely to be present in any three of the following, and state how same may be detected: "Solution of Potash, Spirit of nitrous Ether, Saccharated Carbonate of Iron, Light Magnesia.

3. Name the ingredients and proportion of more active ingredients in: Wine of Opium, Tincture of Rhubarb, Tincture of Kino, Spirit of Chloroform, Syrup of Chloral.

4. Ext. Nux Vom. Describe preparation and standardization. The menstruum used is four of Rectified Spirit to one of Water; would Rectified Spirit alone answer equally well? Give reason for your answer.

5. (a) State method of taking specific gravity of a substance insoluble in and lighter than water.

(b) A substance weighs in air 20 grams, and in Petroleum Ether (sp. gr. .685) 1 gram, what is the specific gravity of the substance?

6. How would you prepare Pure Ether from a sample of Ether containing a little alcohol?

7. What is an Elixir? How may an Elixir of Cinchona be prepared which will not be incompatible with Tincture of Iron?

8. State reasons for the use of: Chloride of Ammonium in Solution of Perchloride of Mercury. Hydrochloric Acid in Liquid Extract of Cinchona. Carbonate of Potassium in Ointment of Iodide of Potassium. Glycerine in Ointment of Iodine.

9 and 10. Oral and recognition of specimens.

Values—12, 12, 15, 12, 4, 4, 7, 6, 8, 20.

BOTANY.

Examiner—D. A. WHITE. Time allowed, two hours.

1. Name the parts and describe the structure and functions of a Leaf.

2. Name and give examples of the different forms of Underground Stems, and distinguish between these and roots.

3. Explain the movement of sap in plants.

4. Define the terms: Anthotaxy, Spathe, Polygamous, Endosperm, Involu-

cre, Hilum, Perigynous, Caryopsis, Caul-
escent, Medullary Rays.

5. Describe difference in structure and mode of growth of the stems of Monocotyledons and Dicotyledons.

6. Name the chief characteristic of the orders Compositæ and Umbelliferae

7. Do plants reproduce themselves in other ways than by seeds? If so, name different ways.

8, 9, 10. Oral; including questions in Cryptogams.

Values—10, 10, 8, 10, 10, 12, 10.

PRESCRIPTIONS.

Examiner—A. R. FRASER. Time allowed, two hours.

1. Translate into English, and describe very fully the manner of mixing, the following:

Recipe—

Oleum Morrhuæ uncias sex.
Creasote "Beechwood" drachmam unam.
Oleum Menthe Piperatis drachmam semisse.
Pulveris Acacie quantum sufficit.
Aque Gaultheriæ ad uncias octo.

Misce fiat Emulsio pro leges artes de qua coch-
leare amplum, ex aquæ vel Vini Nerei uncias
duas bis die post prandium et post cenam.

2. Translate and give manner of dis-
pensing the following:

R (a) Emp: Bellad. partes tres.
Emp: Plumbi partes quinque.
Emp: Resinæ partes duas.
Morph: Mor. gr. x.

Misce. ft. Emp: super pannum linteum ex-
tende. et. cuti affectæ applica. more dictu.

R (b) Iodoform..... 1 scr.
Sulphur Iodid..... ½ dr.
Cera Alb..... 1 "
Cerat Galeni..... 1 oz.

Misce. ft. Ung: et applicetur paululum auri
affectæ omni nocte cum gossypio.

3. What quantity of the following will
dissolve in a six-ounce bottle of water:

Codeine, Mag: Sulph: Soda Bicarb: Iodo-
form, Am: Carb: Acetanilid: Phosphorus: Pot:
Iodid.

4. Give full Latin (if required) and
English for the following:

Dosi pedetentim crescente, cochleat., pocillum,
pugillus., manipulus., cujusl., col., dieb tert.
frust. F. Venæ.

5. A prescription reads:

R Codeine..... 3j gr.
Aq: Dist..... 1 dr.

Take at bedtime, mitte S oz.

You keep in stock a solution 1 gr. in
100. How much of the solution would
you use, and what directions would you
put on the bottle? Show work.

6. What are the regulations necessary
to observe in the sale of spirituous liquors
in a drug store, as required by law?

7. Give Latin name and dose of follow-
ing:

Koussou, Nitrate of Copper.
Solution of Ferric Chloride.
Glauber Salts.
Salts of Sorrel, Menthol, Oxide of Zinc.
Hydrochlorate of Cocaine.

8-10. Oral Examination.

Values—10, 14, 8, 10, 10, 8, 10, 30.