## Pharmaceutical Association of Manitoba.

The following were the questions submitted at the Minor Examination, held Dec. 17, 1898:

### CHEMISTRY.

*Examiner.*—C. Flexon.

(1) Show, by chemical equations, how potassium hydrate is produced by decomposing pot. carb. with milk of Lime, and pot. brom. by adding bromine to a solution of caustic potash.

(2) Describe briefly the Le Blanc process in the manufacture of alkali.

(3) Give the process for preparing bismuth oxynitrate.

(4) Explain the following definitions: Base, acid, salt, anhydride.

(5) Describe clearly the method of preparing acid sulphuric, and state the properties of the acid.

(6) What is meant by a double salt? Mention one and give its composition.

(7) Give the processes for preparing oxygen and nitrogen.

(8) State Avogadro's law.

### MATERIA MEDICA

*Examiner.*—A. R. Leonard.

(1) Name three B. P. herbs, giving habitat, natural order, and preparations.

(2) Give source, habitat and natural order of following: Cantharides, gentian, Calumba rhubarb, cubebæ.

(3) Is terebinthina a resin, oleo-resin, or balsam, and why? Name natural order.

(4) Classify the following drugs, and state why, briefly: Ol. tiglii, camphoræ, benzoin, nux vomica, caryophyllum.

(5) Name two B. P. preparations of which the following drugs are a part: Belladonna root, hydrastis, guaiaci resina, ipecacuanha, jaborandi.

(6) Tragacantha. Source, natural order, habitat, part used, with characteristics.

(7) Cinchona bark. Name official deritives, with doses.

(8) Oral.

### DISPENSING.

Examiner—A. Campbell.

Dispense the following prescriptions:

Mrs. Jones

℞ Iodoformi . . ℥ss
Ung. Petrol. . . ℥i
M. ft. Ungt.
Sig. Bis. in die. ap.

Mr. James

℞ Ol Recini . . ℥iss
Gum. Acaciæ . q.s.
Syrupi . . ℥i
Aquæ ad. . ℥iv
M. ft. Emuls
Sig. ℥ss. hor. som.

James Hinks

℞ Plumbi Acet. . gr. i
P. Opii . . . gr. i
M. ft. pil.
Mitte tales . No. xii
Sig. i om. ter. hor.

Thomas Brown

℞
Pv. Kino . . gr. ii
Sacch. Lac. . gr. ii
M. ft. pulv.
Nitte tales . . x ii
Sig. Una t.i.d. Sumend.

Mrs. J. Robinson

Ferri Sulph. Ex. . gr. iiss
Potas. Carb. . . gr. iiss
M. ft. Cap. No. i
Mitte . . . No. xii
Sig. Cap. i ter in die p.c.

### PHARMACY.

Examiner—A. Campbell.

1. Tell briefly what you understand the following terms to mean: Carbonization, Sublimation, Deflagration, Fusion, Calcination.

2. (a) How would you determine the specific gravity of a liquid lighter than water; also of a soluble salt? (b) One pint of liquid weighs 24 oz., what is its specific gravity?

3. Describe: A sand bath; a water bath; a steam bath. How would you fix a water bath to increase its heating power?

4. What is the difference between a Hydrometer and a Thermometer. Convert 210° C. into F.: 62° F. into C.

5. Evaporation in Vacuo (a) Describe the apparatus necessary for the operation. (b) What is meant by Destructive, Distillation and Fractional Distillation.

6. Write a formula for 4 ozs. solution containing 3% Cocaine, 4% Boric Acid and Water q.s.

7. Give best excipients for forming (1) a White Quinine Pill; (2) one containing Creosote; (3) one containing Potas Permang.

8. Give emulsifying agent and proportions for preparing an emulsion containing (1) a 4 oz. mixture, 50 per cent. Cod Liver Oil, (2) a 4 oz. mixture containing 3 dr. Turpentine.

9. Give B. P. 1898 doses for the following: Tr. Bellad; Tr. Iodi; Tr. Opii Ammoniata; Vin. Colchici; Zinci Sulphas; Ext. Nucis Vom; Hyoscineæ Hydrobrom; Ol. Crotonis; Pot. Bichrom; Creosotum; Ext. Cannab. Ind.; Arsenii Iodidum.

### PRESCRIPTIONS.

*Examiner.*—A. R. Leonard.

1. Give antidotes for iodine, salts of arsenic, salts of copper, hydrocyanic acid, sugar of lead, chloral hydrate, and when necessary how prepared, digitalis, strychnine, and carbolic acid.

2. What is meant by therapeutical, pharmaceutical, and chemical incompatibility? Give an example of each. What is the duty of the dispenser in each of these circumstances?

3. (a) Write short definitions of the terms mistura, bolus, collyrium.

(b) Give full Latin and English of the following: Q.V., S.S.S., P. Rat Æt, Omni quadr hor., F.S.A.R.

4. (a) Translate into English:

℞ Tincturæ hyoscyami drachmas duas.
Tincturæ castorei, drachmas duas.
Syrupi rhœados, drachmam.
Aquæ puræ, uncias quatuor.
Misc, sumat drachmas duas.
Omni hora si non dormiat.

(b) Translate into Latin:

Solution of acetate of ammonium two drams, syrup of cochineal one dram, spirits of nitre one dram, peppermint water three and a half ounces.

Mix and label. Let the patient take two tablespoonfuls when flatulency is troublesome.

5. Criticize fully the following prescriptions, and translate into Latin:

(a) Tinct. digitalis - ℥iii.
Chloroform - - ℥iss.
Tr. perri terchlor - ℥ss.
Aq. ad. - - - ℥qi.
Sig. Three teaspoonfuls every four hours.

(b) Ammon carb. - ℥ui.
Syr. scillæ - - ℥i.
Lime water, ad - ℥iii.
A teaspoonful after each fit of coughing, followed by a drink of linseed tea.

6. Give incompatibilities of following: Acid carbolic, bismuthi subnit, liq. plumbi subacet, potassi iodidum, acid nit-mur. dil, acid gallicum, acid arseniosum, hydraryri perchlor, chlori liquor, and Easton's syrup.