

7. Give methods for determining presence of: (a) Hard paraffin or earth wax in Cera Flava. (b) Alcohol in volatile oils. (c) Phosphorous Acid in Phosphoric Acid. (d) Ferrous salt in Liq. Ferri Perchloridi Fort. (e) Iodate in Potassium Iodide.

*Acetanilidum*: (a) How prepared. (b) Chemical formula. What chemical test distinguishes it from (c) Phenacetin, (d) Phenazone? (e) Which of these three popular antipyretics is freely soluble in cold water? (f) Which is incompatible with spirit of nitrous ether?

9. Give important medicinal constituent, strength and dose of each of the following: (a) Tinct. Nucis Vomice. (b) Opium. (c) Ext. Cinchonæ Liq. (d) Tinct. Strophanthis. (e) Ether. (f) Pil. Saponis Co. (g) Syr. Ferri Iodidi. (h) Liq. Morphine Sulphatis.

10. State officinal or official names of (a) Pil. Ruti, (b) Lait Verginale, (c) Elixir Proprietatis, (d) Jesuit's Balsam, (e) Liver of Sulphur, (f) White Precipitate, (g) Brown Powder.

**PRACTICAL PHARMACY.**

*Examiner*—CHAS. F. HEBNER, PH. G., PHM. B.

1. Prepare Ointment of Nitrate of Mercury in accordance with the following formula, submitting the product and the answers to the subjoined questions:

*Unguentum Hydrargyri Nitratis.*

Mercury . . . . .	2.00.
Prepared Lard . . . . .	9.10.
Nitric Acid 42° . . . . .	5.68.
Olive Oil . . . . .	14.19.

(Solids by weight, liquids by measure.)

Dissolve the mercury in the nitric acid using gentle heat. Fuse the lard in the olive oil, and while the mixture is at a temperature of about 70° C., add the above solution—also at the same time temperature—mixing them well. If the mixture does not froth very soon after mixing increase the heat until it does. Stir well while cooling.

- (a) Write equation indicating reaction of nitric acid on mercury.
- (b) State reasons for employing heat in making this solution.
- (c) Why should excessive heating be avoided.
- (d) What change do the fats undergo while preparing the ointment.
- (e) Why should "frothing" be forced.
- (f) State necessity of stirring mixture well while cooling.
- (g) What might result if the acid should happen to be under strength.

2. Ascertain the specific gravity of the powder submitted (showing all calculations) and report on the same as indicated below:

- (a) Number of powder. . . . .
- (b) Weight of powder taken. . . . .
- (c) Weight of an equal volume of water. . . . .
- (d) Specific gravity of powder. . . . .

**PRESCRIPTIONS.**

*Examiner*—CHAS. F. HEBNER, PH. G., PHM. B.

1. Give translation of the following, as nearly literal as possible:

R. Quinine disulphatis grana triginta, instilla e limone recente quantum sufficient succi ad quinam solvendam et adde Aque uncins decem, et strychnine sequigranum.

Signe. Miscio fiat mistura cujus sumat cochleare unum maximum bis in die, circa horam undecimam matutinam et quartam horam pomeridianam.

2. Expand into full Latin and give literal translation:

R. Ferri carb. . . . . 5 ijss.  
Rhei pulv. . . . . gr. xxv.  
Ol. anthem. . . . . gtt. x.  
Conf. rosa . . . . . q. s.

M. et ft. mass. in pil. XL div. et. sig. sum. seger ij octavis hor.

3. Write the following expressions without abbreviations and translate: (a) Cras noct. sumend, (b) Aq. astrict., (c) Har. pil. sum. iij., (d) M. et instilla gtt. iv auri p. r. n., (e) Ft. pulv. emetic. statim sumend, (f) Mitt. in vitro chart. nig. involuto, (g) Div. in part. duodec. quarum cap. i secund. vel tert. quaque hor., ex cyath. parv. lact. vaccini recent. absente febre, (h) Si. feb. adest., (i) In latus aut dext. aut sinister.

Translate the following prescriptions, criticize freely and state how you would meet any difficulties which might arise in dispensing:

4. R. Potassii chloratis. . . . . 5 ij.  
Cocaine hydrochloratis. . . . . gr. ij.  
Mellis depurati . . . . . f 5 ss.  
Aquam puram ad . . . . . f 5 iv.

Miscio ft. solutio.

Sig. Gargarisma. More dictu saepe utend. de die in diem.

5. R. Ammonii chloridi. . . . . 5 ij.  
Hydrargyri perchlor . . . . . gr. j.  
Potassii iodidi . . . . . 5 j.  
Tinct. calumbe . . . . . f 5 j.  
Tinct. zingiberis . . . . . f 5 ijss.  
Morphine hydrochlor. . . . . gr. jss.  
Aqua q. s. ft . . . . . f 5 iv.

Miscio ft. mistura.

Sig. Coch. mod. ex cyath. aq. ter. quarterve die sumend.

6. R. Potassii iodidi . . . . . 5 jss.  
Tinct. gent. comp . . . . . f 5 iv.  
Spt. atheris nitrosi . . . . . f 5 ij.  
Acidi nitromuriatici dil. . . . . f 5 ij.  
Syr. aurantii . . . . . f 5 ij.  
Aquam ad . . . . . f 5 iv.

Miscio ft. mist.

Sig. Capiat coch. ex paululo aque frigidæ post cibos.

7. R. Tinct. ferri perchlor . . . . . f 5 ij.  
Liq. ammon. acet. . . . . f 5 iv.  
Glycerini . . . . . f 5 i.

Miscio ft. mist.

Sig. Coch. medium omni bihorio primo die deinde tertia quaque hora si tussis increbuerit.

8. R. Chloralis hydratis . . . . . gr. lxxv.  
Potassii bromidi . . . . . 5 ij.  
Elix. aurantii . . . . . f 5 j

Miscio ft. solutio.

Sig. Exhibe cochleare mod. ex aqua cum nocturna vigilia premitur.

9. R. Ferri et ammon. cit . . . . . gr. lxxii.  
Tinct. nucis vom. . . . . f 5 ij.  
Sodii bicarbonatis . . . . . 5 j.  
Syrupi simp . . . . . f 5 j.  
Aquam ad . . . . . f 5 vj.

Miscio et ft. mist.

Sig. Coch. med. t. i. d. p. c. sum.

10. (a) Write dispensing notes on combinations of pepsin and bismuth in liquid mixtures. (b) Cite two instances where a dispenser would be wholly justified in substitution.

**PRACTICAL DISPENSING.**

*Examiner*—CHAS. F. HEBNER, PH. G., PHM. B.

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

MISS FLETCHER, Carlton Street.

R. Ext. belladonna . . . . . gr. xx.  
Hydrargyri oxidii rubii . . . . . 5 jss.  
Ammglio porcina ad . . . . . 5 vj.

Miscio s. a. et ft. ungu.

Sig. Saepe ad humerum dexterum applicandum.

GEORGE G. MILLS, Esq.

R. Plumbi acetatis . . . . . gr. ijss.  
Opii pulv. . . . . gr. ss.

M. fac pilulam et dentur tales doses decem.

Sig. Cap. pil. ter quarterve die.

MISS DODGE, Parkdale.

R. Olei jecoreis aselli . . . . . f 3 jss.  
Creasoti . . . . . f 5 j.  
Olei menthae pip . . . . . gtt. v.  
Pule. acacie (opt.) . . . . . q. s.  
Aquam ad . . . . . f 5 iv.

M. ft. emuls.

Sig. Exhibe coch. parv. ij ex cyatho lactis post prandium et post conam quotidie.

MR. BOLTON, Ross Avenue.

R. Magnesii carb . . . . . 5 ss.  
Rhei pulv. . . . . 5 j.  
Tragacanthæ pulv . . . . . gr. x.  
Aquam ad . . . . . f 5 iv.

M. ft. mist.

Sig. Coch. ex cyatho aque mane meridie et vesperi.

THOMAS W. ROWLAND, Esq., Yonge Street.

R. Ext. belladonna . . . . . 0.065.  
Plumbi acet . . . . . 0.009.

M. ft. suppos. et mitte tales quatuor.

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

PURE POTASSIUM IODIDE for triturating thiosulphates or acids is prepared by Groeger as follows: Dissolve 40.0 g. of pure potassium permanganate in 1000 cc. of hot water, add 20.0 g. of potassium iodide previously dissolved in a little water, heat for thirty minutes on a boiling water-bath, and then add drop for drop alcohol until the excess of potassium permanganate has been removed. Now filter, and to the alkaline liquid add acetic acid to produce a distinctly acid reaction, and evaporate to 50 cc. After cooling the separated crystals of potassium iodide are washed with strong alcohol.—*Zeit. f. Ang. Chem.*