

instance : Gum tragacanth, opium, senna, liq. jalap, balsam of tolu, and squills.

3. Resin.—From what, and how is it obtained? What other important commercial product is obtained during the same operation? State its chief use in the pharmacopœia.

4. What is *nux vomica*? Where is it found? Name alkaloids, their action and doses.

5. (a) Give dose, and in case of poisoning, mention the symptoms and antidotes for the following: Bichloride of mercury, chloral, croton oil, sulphuric acid, and atropine.

(b) To what classes of proximate principles does menthol belong, and how is it obtained?

What adulterants might you expect to find in honey and how would you detect them?

In what two forms is *colchicum officinale*, and state the preparations and dose in each instance.

6. *Belladonna*—Source, parts used in medicine, alkaloids, principal preparations and doses.

7. *Asafoetida*—State source, and describe appearance. For what purposes is it used?

8. Give composition of four preparations containing chloroform.

9. *Witch Hazel*—Pharmacopœial names of preparations, methods of preparation, doses.

10. What is the source of *digitalis*? State composition, and doses of preparations. Name the more common incompatibles.

DISPENSING.

1. Describe the various characters used in Latin prescriptions, and write out the names in full Latin.

What would be understood by the following abbreviations occurring in prescriptions: Aq. chlor., hyd. chlor., emp. lyt., sod. hypo., sod. sulph., and calc. chlor.?

2. State which of the following combinations are objectionable, mentioning the objection:

Liq. strychnia and bicarbonate of potash.

Iodide of potash and perchloride of mercury.

Calomel and antipyrine.

Silver nitrate and hydrochloric acid.

Tr. *nux vomica* and bromide of potash.

3. How would you dispense the following prescription:

R. Codeia Grs. iv.

Antim. tart. Gr. i.

Syrup tolu Ozs. iv.

M.

What dose of this combination (used as an expectorant) would you consider proper for an adult?

4. Write out a prescription for thirty pills, using unabbreviated official names, and expressing the quantities metrically, each pill to contain:

Arsenious acid $\frac{1}{10}$ gr.

Quinine sulphate 2 grs.

Dried sulphate iron 1 gr.

Aloin $\frac{1}{2}$ gr.

What excipient would you use?

5. In compounding prescriptions, should heat as a general rule be used to aid in the solution of solids? Give reasons. When should a solution be filtered? Is a druggist justified in using solvents, not directed in a prescription, for the purpose of making a solution of all the ingredients? If so, when?

CHEMISTRY.

1. Define the term atom. What is meant by chemical action? How may the result of chemical action be expressed?

2. What is atomic weight? Molecular weight?

3. Give the formula and process of manufacture of carbonate of potassium? What group of atoms is the radical of all carbonates?

4. Define a normal salt, an acid salt, and an oxy-salt, and give the formula of one of each.

5. How much bi-carbonate of sodium (Na Hco_3) can be manufactured from 2240 lbs. of crystallized carbonate ($\text{Na}_2\text{C}_3, 1\text{ H }2\text{O}$)?

$\text{Na} = 23, \text{C} = 12, \text{O} = 16, \text{H} = 1$. Show work.

6. How are sodium salts distinguished from those of potassium?

7. Give chemical names and formulae of white, green and blue vitriol.

8. How is sulphuric acid prepared?

9. How is chloroform prepared from alcohol?

10. What are glycols? Give formula, and mention chief properties of glycerine.

Piperidine bitartrate is claimed to be preferable to all other remedies for uric acid diathesis. It occurs in colorless crystals of pleasant taste, readily soluble in water.—*Ap. Ztg.*

Preliminary Examinations.

The board of preliminary examiners of the Pharmaceutical Association of the Province of Quebec held their quarterly examinations in Montreal and Quebec on Thursday, July 6th, when twenty-eight candidates entered their names for the required preliminary examinations, prior to their entrance to the study of pharmacy.

Of these the following gentlemen, named in order of merit, passed upon all subjects, and are entitled to be entered on the association register as certified apprentices: Hilaire Therien, Joseph F. Fournier, K. C. Vittie, J. P. H. Lalonde, J. M. McFarlane, Max Mercier, P. N. Boudreault, Thos. O'Rourke, J. Z. A. Fortin. The following candidates passed upon all subjects but one, namely, arithmetic: J. B. Contant, H. Delorme, A. Lecavalier, Louis Lacasse, Leopold Leonard; history, R. Reizeime, A. Langevin; geography, C. E. Gravel; the remainder being referred back for further study.

The examiners were Prof. J. O. Cassegrain, of Jacques Cartier Normal School, and Prof. Isaac Gemmell, of the High School, Montreal. The next examination will be held on October 5th, 1899.

How Kipling Refused \$1,000.

An interesting news item comes from New York, which goes to show what up-to-date advertising people are the firm of J. C. Ayer Company, manufacturers of sarsaparilla, etc. The company offered Rudyard Kipling \$1,000 for a poem of eight lines, two stanzas. This was on June 15th, and it took the author just nine days to refuse the offer, which amounted to \$20 for each word in the proposed poem. If the average word consisted of five letters, this would place a value of \$4 on each character.

TANNOCASM is an intestinal astringent, prepared by Dr. G. Romijn as follows: 1 kg. of purified casein, also called lactarin, is dissolved in 10 litres of water with aid of sodium carbonate. To this is added, with stirring, a solution of 700 Gm. of tannic acid in 3 litres of water and 100 Cc. of formaldehyde solution. A very dilute hydrochloric acid is now added in slight excess, the precipitate which is formed, separated, washed and dried. It is a light-gray mass, easily powdered. The compound is broken up into its components by the alkaline fluids of the intestines.—*Ap. Ztg.*