Pharmaceutical Association, Province of Quebec.

—

PRELIMINARY EXAMINATION—OCTOBER 1ST, 1896.

TRANSLATE INTO ENGLISH.

"Quand Télémaque s'approche de la ville, il fut bien étonné de voir toute la campagne des environs, qu'il avait laissée presque déserte et inculte,cultivée comme un jardin et pleine d'ouvriers diligents."

TRANSLATE INTO FRENCH.

Cæsar spent his money with lavish extravagance to increase the number of his friends and partisans, and his opponents had hoped that the exhaustion of his finances would put a stop to his machinations.

ENGLISH GRAMMAR.

1. Write out and punctuate the passage dictated. 2. Mention the various ways in which are formed (*a*) the plural form of nouns, (*b*) the feminine form of nouns. 3. Criticize the following: (*a*) He appears to enjoy the universal esteem of all men. (*b*) Alarmed at the news, the boat was launched at once. (*c*) The attempt was found to be impracticable. (*d*) They seemed to be nearly dressed alike. 4. Explain with examples the difference in meaning between *may* and *can*, *shall* and *will*, *farther* and *further*. 5. Give the principal parts of the following verbs: Thrive, hew, seethe, sew, wring, awake, swim, bid, flee, fly.

LATIN.

Translate as literally as the idiom of the language allows: 1. "Hoc praelio facto, reliquas copias Helvetiorum ut consequi posset Cæsar curat pontem in Arare faciendum, atque ita milites transduxit. Helvetii repentino ejus adventu commoti, legatos ad eum mittunt." 2. In what case is each of the following words: Praelio facto, reliquas copias Helvetiorum? 3. Decline together pontem faciendum. 4. Give the derivation of commoti, and tell with what substantive it agrees. 5. Conjugate the tenses to which the following forms belong: Posset, curat, transduxit.

ARITHMETIC.

1. If a gallon contains 277.274 cubic inches, find the contents in bushels of a bin 18 feet long, 6 feet wide, and 9 feet deep. 2. What is the value of $\frac{1}{11}$ of $\frac{1}{12}$ of a vessel, if a person who owns $\frac{3}{11}$ of it sells $\frac{1}{3}$ of $\frac{5}{8}$ of his share for $1,400? 3. What sum will amount to $3,213 in ten years at 8 per cent. simple interest? 4. Two pipes together fill a cistern in one hour; one of them alone fills it in 1½ hours. In what time will the other fill it? 5. If, by selling goods for $182, 6 per cent. is lost, for what sum must they be sold to realize a profit of 7 per cent?

GEOGRAPHY.

1. Name the principal oceans and seas of the world. 2. Name the provinces and territories of Canada, with their capitals. 3. Name the principal railways running through Canada. 4. Locate the following: London, Glasgow, Mississippi, Thames, Seine, Berlin, Egypt, Constantinople, Washington City, the Russian Empire.

HISTORY.

1. Name the Stuart sovereigns of England, and give what you think is the most important event in the reign of each. 2. Give the name and date of the first permanent settlement established in America by the English and the French respectively. 3. Give a brief account of the explorations of Columbus, Cabot, Cartier, and La Salle. 4. Give some resemblances and some differences between the constitution of Canada and that of England. 5. Give the cause and chief events of the "Hundred Years' War."

MINOR EXAMINATIONS, QUEBEC, OCTOBER 13TH, 1896.

MATERIA MEDICA AND TOXICOLOGY.

1. Ergot—from what obtained. What are the parts used? Give medicinal properties, official preparations with strength and doses. 2. Give formula, proportion of active ingredients, and doses of the following: P. Ipecac Co., Tr. Digitalis, Liq. Arsenical., Tr. Nuc. Vomic., Vin. Colch. Tr. Bellad., and Infus. Digitalis. 3. What is Tolu and Asafœtida? Whence and how obtained? Name B. P. preparations of each. 4. Cantharides—what is it? Give habitat. Name its active principle, its best solvent, and official preparations and doses. Male fern—from what obtained? Name parts used, mode of preparation of official liquid and its uses.

CHEMISTRY.

1. Two (2) fluid ounces of Muriatic Acid weigh exactly 1000 grains. What is its Sp. Gr.? Is it B.P. strength? If not, what should it be, and how much should one fluid ounce B.P. weigh? What is the percentage of HCl gas in Ac. Hydrochlor. B.P., and also Ac. Hydrochlor. dil.? 2. Define combustion, the law of diffusion of gases. Which is the most diffusible, O. or H.? 3. Describe a Bunsen's burner and its flame. Give advantages thereof and use in the chemical laboratory. Give full description of process for making Soda Bicarb. B.P., accompanied with equations? How would you distinguish a solution of Bicarbonate from one of Carbonate?

PHARMACY.

1. Ung. Hydrarg. Nit.—Give full B.P. process of manufacture. What is the formula and strength of the Ung. Hyd. Nit. dil.? 2. Dialysis—What is it, and by what phenomenon is it produced? Explain the process. Which substances remain and which pass through the dialyzer? Give name and full process of one official preparation. 3. Granulated Effervescent Salts—What are the common and indispensable ingredients of these, and why? Give process for making Mag. Sulph. Eff. B.P., and proportion of active ingredients. 4. Criticize fully the following R's, and how would you dispense them? Write directions in French:

R. Potass. Cit. ..... 4 dr.
Quin. Sulph ..... 24 grs.
Ac. Citric, q.s.
Fluid Ext. Glycyrrh ..... 2 oz.
Syr. Tolu ..... ad 4 "
M. omni tertii horis ex aqua.

R. Quin. Sulph ..... 20 grs.
Ac. Sulph. dil. q.s.
Potass. Iodidi ..... 2 dr.
Syrupus ..... 1 "
Aq. ad ..... 8 oz.
M. Coch. mag. t.i.da.c.

R. Cocaine Mur ..... 5 grs.
Sodii Bibor ..... 15 "
Aq. Rosæ ..... 1 oz.
M. Collyr—Ut modo dictu.

MAJOR EXAMINATION.

MATERIA MEDICA AND TOXICOLOGY.

1. Give source, habitat, parts used; natural order, physical characteristics, and B.P. preparations, with strengths and doses of the following: Aconite, Belladonna, Fox Glove, Cascara, and Hops. 2. Physostigmine—What is it, and from what obtained? Give therapeutical properties, name and strength of official preparation. 3. Strophanthus—What is it, and from what obtained? What are its medicinal properties and active principle? Give B.P. preparation, and full process for making, and dose. 4. Give antidotes for iodine, salts of arsenic, salts of copper, and cyanide of potassium, and how to prepare them.

CHEMISTRY.

1. Calculate the percentage of Ca_2HO in lime water, 438 grammes of which are neutralized by 20 c.c. of volumetric solution of $H_2 C_2 O_4$. Is it B.P. strength? If not, what is B.P. strength? 2. Give formula of Oleate of Lead, and equation illustrating its preparation. Is it official, and, if so, under what name? 3. What is the formula of Persulphate of Iron? Give mode of preparation and equation of Liq. Ferri Persulph. B.P., its sp. gr. and tests. 4. How much Sulphide of Antimony will be required to make 10 lbs. of Tartar Emetic? Show work of calculation.

BOTANY.

1. To what natural order belong the following plants? Give a general description of the principal parts of each one, and the names under which they are known in pharmacy. Thorn, Apple, Hemlock, Dandelion, Barley, and Gold Thread. 2. When a seed of wheat is put into the ground under favorable circumstances, what physical and chemical changes take place? Describe the plant from step to step in its growth to maturity. 3. Diagnose the natural orders—Liliaceæ, Atropaceæ, Rosaceæ, Graminaceæ. 4. What is a leaf, of what is it composed, what are its functions in the vegetable economy? What is the difference between an evergreen and annual leaf? Do evergreen leaves fall off at stated periods?