

5. What is a root? Classify and explain. How are roots distinguished from underground stems?

6. Of what does a fruit consist? Compare a strawberry with a raspberry.

7, 8, 9 and 10. Practical.

PRACTICAL PHARMACY.

Examiner: CHAS. F. HERBNER, Ph.G., Pharm.B. (Tor.).
Time allowed: two hours.

1. Determine the specific gravity of the liquid submitted in two-ounce bottle, and report on same in accordance with subjoined form:

(a) Liquid labelled—

(b) Quantity of liquid under investigation. (Give both weight and volume.)

(c) Weight of an equal volume of water.

(d) Specific gravity. (Exhibit figures in all calculations required.)

(e) What appliances were used in the above determination? (Answer this question by leaving upon lower shelf for inspection each appliance required, excepting the balance and weights.)

2. Prepare two fluid ounces of syrup of ferrous iodide, in accordance with the following formula:

Iodine.....	47.1
Iron, in card teeth.....	15.0
Refined sugar.....	458.4
Distilled water, a sufficient quantity.....	—
Product....	568.0 c.m. ³ .

Dissolve the sugar in 200 c.m.³ boiling distilled water with heat. Dilute 40 c.m.³ of the resulting syrup with an equal volume of distilled water, and set aside. Make a solution of ferrous iodide, using the iodine, iron, and distilled water, 80 c.m.³; when reaction has subsided, heat gently and finally boil slightly; filter the liquid while yet hot into the syrup, washing flask and filter with the diluted syrup which has been heated to boiling. Pass sufficient boiling distilled water through the filter to produce, when cold, 568 c.m.³. Mix and add a protective agent of your own choice. Bottle the syrup, label (using full Latin title) and deliver to the examiner.

Report on the syrup, stating:

(a) Amount of each ingredient used.

(b) Show by chemical equation the reaction of the iodine on the iron.

(c) Explain how iodine becomes dissolved during the earlier stages of the reaction.

(d) Why is the recent ferrous iodide solution ordered to be boiled before filtration?

(e) How should the syrup be stored, and why?

(f) Explain the principle of protection furnished by the agent used.

(g) Assuming the sp. gr. of the syrup to be 1.380, what percentage of ferrous iodide should be present? (Show work).
Fe. = 55.6. I. = 125.9.

N.B. — Neatness of work, order in arrangement, and cleanliness of working desk and outfit, will enter as important factors in your ratings.

Junior Examination Results.

At the recent junior Examinations of the Ontario College of Pharmacy, held Nov. 27th and 28th, and Dec. 5th to 8th, inclusive, one hundred and seventeen candidates presented themselves, of which number one hundred and four secured the desired percentage, and will be permitted to enter the senior term, which commences on January 4th, 1900.

The official report on the results of the examination follow:

JUNIOR EXAMINATIONS, 1899.

First Class Honors, arranged in order of merit: G. H. Small, G. Tamblyn, Sough, F. Bertram, R. J. Nolan, J. C. Mills, O. R. Mabee, N. E. Suddaby, Leo C. Wilson, W. H. Whiles, Wm. Teeter, Chas. Collins, Earnest Hayes, T. G. Patterson, J. A. Scott, Victor F. Kincaid, F. W. E. Keyes, Arthur C. Symmes, E. B. Ostrom, A. H. Box, W. A. Hertel, Arthur Sitter, O. G. Clendenan, A. A. Lister, R. E. Young, C. J. Dickson, E. H. Hunt, R. R. Stepler.

Second Class honors in order of merit: Thomas Caldecott, F. Y. Wynn, F. A. Rutherford, A. G. Brown and J. B. M. Hodgins (equal), H. T. Young, J. W. Y. Collins, H. S. Hamill, H. L. Mitchell, J. A. Simpson, W. M. Messer, A. E. Roberts, Charles Chambers, F. W. Marlatt, Herb. G. Mitchell, John Lines and A. E. Woodrofe (equal), H. J. Rea, S. J. Manchester, F. L. Traynor, R. A. Douglas, H. B. Gourlay, F. W. Dennis, R. Laing, R. W. Grieve, J. G. Wright, C. D. Kerr, W. Crossley, H. H. Wallis, W. Davidson, C. B. Smith.

Pass list, alphabetically arranged: J. M. Adams, Harry S. Begg, Harry L. Biden, Otis Cochrane, M. A. Collett, O. F. Covernton, E. R. Des Rosiers, A. C. Douglas, C. H. Duncan, Wm. Enony, G. W. Ferrier, S. W. Fisher, Clinton Glaspel, L. Gourlay, W. J. Graham, Thomas

Gumb, Leslie J. Hall, A. E. Helmer, Wm. Holmes, E. A. Labonte, H. C. Layman, V. Le Doux, Frank J. Lee, A. E. Le Francois, Allen Mack, E. H. Mahon, J. W. Mitchell, D. J. McDougall, Roy L. Nickerson, F. O'Connor, Reuben C. Post, W. T. Rapley, Everett A. Ray, Abram A. Schiedel, E. G. Seyler, John Shurie, H. N. Smith, A. F. Stewart, Charles S. Tanner, Joseph Tasse, J. P. Taylor, John W. Thompson, C. N. Wheatley, E. Woolard, Miss Alpha Yeomans.

Granted Agrotat with Pass Standing: Fred. J. Mitchell.

Starred in Subjects—

Pharmacy only: Meek, C. P.; Duncan, G. R.; Hewitt, O. H.

Physics only: Paterson, J. F.

Botany only: Porter, H. D.

Latin, Pharmacy, and Chemistry: Ormiston, Andrew.

Latin, Botany and Physics: Rance, Alfred.

Latin and Physics: McKay, Walter M.

Latin and Chemistry: Nasmyth, W. L.

Highest in Subjects—

Pharmacy (Theoretical and Practical):

Lister, A. A.; Tamblyn, G.; Nolan, P. J.

Latin: Symmes, A. C.; Tamblyn, G.; Small, G. H.

Botany: (Small, G. H., and Hayes, Earnest, equal), Mills, J. C.

Chemistry: Tamblyn, Geo.; Small, G. H.; Mabee, O. R.

Practical Chemistry: (Nolan, P. J., and Patterson, T. G., and Sough, Bertram F., all equal.)

Physics: Keyes, F. W. E. (Tamblyn, G., and Collins, Chas., and Small, G. H., equal).

New Druggists and Drug Clerks' Exchange.

We would call attention to the advertisement of Messrs. McCann & Campbell, which appears in this issue. The members of this firm are both retail druggists who have disposed of their businesses and have now opened a Druggists' Exchange at 9½ Adelaide street east, Toronto. They solicit the patronage of the trade, and THE CANADIAN DRUGGIST believes them well worthy of it.

Read the advertisement of the Todd Remedy Co. this month. They are placing good advertising in a number of daily papers, and we believe the demand will warrant druggists stocking the goods. The company consists of reliable men, engaged for the most part in the drug business, and will push the sales with energy.