

tion of bismuth and ammonium citrate, lead plaster.

2. Give the official name and enumerate the ingredients entering into the following preparations. Elixir of vitriol, black draught, spirit of sal volatile, Donovan's solution.

3. Say in what way and from what cause the following preparations are liable to differ from the standard of strength and purity given in the B.P. and state briefly how such difference may be indicated: Mercur. ointment, light magnesia, precipitated sulphur, arsenical solution.

4. Tincture of opium. Say how it is prepared. Give outline of process of assay and state clearly manner of standardization.

5. Outline a process for the assay of an alkaloidal drug which also contains tannin and a fixed oil.

6. Incompatibility. Classify and define. Are the following substances incompatible and if so in what way, if any, may such incompatibility be overcome?

(a) Mucilage of gum acacia and tincture of ferric chloride.

(b) Iodine and strong solution of ammonia.

(c) Arsenical solution and solution of strychnine hydrochloride.

(d) Pyrophosphate of iron and diluted phosphoric acid.

7. Syrupus ferri iodidi—

Iron, in wire. 25 grammes.

Iodine. 83 "

Refined sugar. 825 "

Distilled water, a sufficient quantity.

(a) Describe accurately how you would proceed in preparing the above, with notes as to precautions to be observed, etc.

(b) To what extent, if any, is the iron or the iodine in excess of that theoretically required to combine with the other?

(c) State the strength of the finished product and give method for estimating same.

(Fe=55.6. I=125.9.)

BOTANY.

Examiner: A. Y. SCOTT, B.A., M.D., C.M.

1. Write short notes on phyllotaxy—dichotomy—chlorophyll—pollen—metabolism.

2. How is a fruit formed? Classify fruits. Compare the fruit of a raspberry with that of a strawberry.

3. Trace fully the development of the

ovule of a phanerogam. How does the ovule of a conifer differ from that of an Angiosperm?

4. State how algae agree with and differ from fungi.

5. Describe fully the nutritive and reproductive processes in the mosses.

6. Compare the structure of the stem of a fern with that of a dicotyledon.

PRACTICAL BOTANY.

Examiner: A. Y. SCOTT, B.A., M.D., C.M.

1. Specimens A and B. Describe and compare.

2. Specimen C. Refer to its order, giving reasons for so doing.

3. Specimen D. Describe fully.

4. Microscopic. Draw and describe the sections.

PRESCRIPTIONS.

Examiner: CHAS. F. HEEBNER, PH. G., PHM.B.

1. Translate the following prescriptions:

(a) R. Quininae sulphatis, grana sedecim;

Strychninae sulphatis, grani

duas quintas partes;

Acidi hydrochlorici diluti,

minima octoginta;

Tincturae zingiberis, drachmas

duas et dimidiam;

Tincturae cardamomi com-

positae, drachmas duas cum

semisse;

Syrupi, sesunciam;

Aquae unciam et drachmas

duas.

Misce secundum artem fiat

mistura.

Signatura. Coch. parv. ex cyatho

aquae p. c. sumendum.

(b) R. Cinchonae cort. cont. ʒij

Coque in aquae purae ʒxvj

Adjice sub finem coc-

tionis

Serpentariae radices

cort. ʒij

Stent per horam et

colaturae adde

Spt. cinnamomi ʒiiss

Acidi sulphurici di-

luti ʒiiss

Signa. Cyathus mane iterumque

hora ante prandium stomacho

vacuo sumendus.

2. Give average adult dose, also average dose for child three years of age, of each of the following: (a) Hydrargyri perchloridum, (b) tinctura opii, (c) syrupus ferri iodidi, (d) spiritus ammoniae aromaticus, (e) tinctura rhei composita.

3. Expand and translate the following: (a) H. S., (b) O. N., (c) Emp. Lyth., (d) P. M., (e) F. L. A., (f) P. C., (g) Bis. ind., (h) M. D. S.

4. Translate the following: (a) sexagesima pars horae; (b) pro ratione aetatis; (c) ad quartem vicem; (d) Aluta; (e) In lagenam bene obturata; (f) medicus; (g) balneum calidum.

5. In an half-litre mixture having an aqueous menstruum, how much of each of the following salts can be dissolved: (a) potassium chlorate; (b) acidum boricum; (c) ammonium chloride; (d) sodium bicarbonate; (e) iodine; (f) salol; (g) potassii tartaras acidus.

6. Criticise the following prescriptions; point out cases of incompatibility, where they occur; and state if the mixtures can be satisfactorily dispensed, and give method:

(a) R. Paraffini molle 30°0

Zinci oxidi 4°0

Glycerini 5°0

Tragacanthae 5°0

M. ft. ung.

(b) R. Argenti nitratis ʒj

Aquae font. Oj

Solve ft. lotio.

(c) R. Liq. hydrogenii dioxidii ʒj

Potass. permanganatis gr. i.

Aquam ad ʒ3j

Mice ft. lotio.

(d) R. Copaibae

Tinct. ferri perchlor.

Tinct. cantharidis aa 100

Glycerini 20°0

Syrupi 50°0

M. ft. mistura.

(e) R. Potassii iodidi ʒj

Spt. aetheris nitrosi ʒj

Tinct. ferri perchlor. ʒiiss

Tinct. gentianae compositae ʒiiss

Glycerini ʒiiss

Aquam ad ʒiiv.

M. ft. mist.

7. Write dispensing notes on the incorporation of alkaloids with fatty bases, as in the preparation of ointments, suppositories, liniments, etc.

The Indian Fly Catcher.

This is a new article which has been introduced by Messrs. J. Hislop & Co., Montreal, manufacturers of The Indian Catarrh Cure, which has obtained a remarkably large sale in a short time.

The "Fly Catcher" should prove an equally good selling article. It is made of a thin cardboard or rather compressed pulp, of circular shape, and coated with an adhesive or "sticky" composition. It is designed to be hung up, thereby doing away with the annoyance of having an unsightly mass of flies in an exposed place.