

Manitoba Pharmaceutical Association.

SEMI-ANNUAL EXAMINATION HELD IN MEDICAL COLLEGE.

MAJOR.

CHEMISTRY.

Time—Three hours.

- 1.—(a) Enunciate the two laws laid down by Dalton relating to chemical combinations.
(b) How does the "Atomic Theory" explain and support these laws?
- 2.—(a) What is "Tartar Emetic?"
(b) Give preparation and formula.
- 3.—(a) What is chloride of mercuric ammonium?
(b) Give its formula.
(c) Explain the reaction occurring when calomel is added to solution of ammonia.
4. When cupric sulphate is reacted upon by ammonium hydrate, in what manner does the resulting compound differ from the above two?
- 5.—(a) What are the principal forms of fermentation?
(b) State the chief products of each form.
- 6.—(a) What is the difference between chloral and chloral hydrate?
(b) Give preparation and formula of each.
7. Describe three methods by which phosphoric acid may be obtained.
8. Rain water is more liable to contamination than spring water if passed through lead pipes or held in lead receivers. Why?
- 9.—(a) How much I. is there in 2 oz. of K. I?
(b) How much is there in 1 lb. of H_2SO_4 ?
10. Define sulphates, acid sulphates and double sulphates.
11. Oral.

MATERIA MEDICA.

- 1.—Give natural order of Tobacco, Dandelion, Senna, Resin, Milk, Leech.
- 2.—What are the officinal plants of the natural order, Ranunculaceae?
- 3.—Opium—(a) Source; (b) How obtained; (c) Part used; (d) Officinal alkaloid; (e) Adulterations of; (f) Preparations containing it.
- 4.—What is Soft-Paraffine, and how obtained?
- 5.—What preparations do the following enter into? Salacine, Cod Liver Oil, Pepsin, Lemons, Menthol, Manna, Bals. Peru.
- 6.—Cinchona—(a) Different varieties; (b) Source; (c) Name alkaloids and from which variety obtained.
- 7.—How is Carbolic Acid prepared, and name preparations into which it enters?

8.—Give geographical source of the following: Pellitory, Sabadilla, Musk, Mastich, Jaborandi, Myrrh, Copaiba, Capsicum, Gambouge, and Cubebs.

9.—Oral.

10.—Recognition of specimens.

BOTANY.

1. Write fifteen lines on Bacteria.
2. (a) Name the different elements upon which plants feed, (b) and from where obtained.
3. Explain the growth of the plant fully from the time the seed is put in the ground.
4. (a) Distinguish between a "stem" and "root." (b) Define and give examples of a rhizome, corm, and bulb.
5. Sketch a plant showing the different parts.

PHARMACY.

- 1.—Give formulae for—
Tr. Camphor Co.
Po. Jalape Co.
Spts. Ammon. Ar.
Ung. Aconitic.
Pet. Plumbi c. Opio.
- 2.—State strength of active ingredients in each of following—
Tr. Opii.
Pil Saponis Co.
Liq. Plumbi Acetas.
Aq. Chloroformi.
Infus Gentian Co.
- 3.—Give specific gravity of—
Liq. Ferri Perchlor.
Chloroform.
Spt. Ether Nit.
Ethylie Alcohol.
Glycerine.
4. What is the strength of Vin. Ipecac and how is it prepared?
- 5.—Explain the terms—Percolation, Water Bath, Maceration, Solution, Sublimation.
- 6.—Describe the method of preparing Syr. Ferri Iodidi? Give strength and specific gravity?
- 7.—Name the official suppositories and give strength of active ingredient in each.

PRACTICAL DISPENSING.

- R Emp. Canthar. 4 x 6.
Sig. Apply as directed.
- R Quinia sulph. gr. i.
Ferri Relact. gr. i.
Pot. Bicarb. gr. ½
Fiat pil.
Mitte No. xii.
Sig. One after each meal.
- In what order would you mix the following?
R Liq. Strychnia. dr. i.
Liq. Arsenicalis dr. i.
Tr. Ferri Perchlor. dr. ii.
Elix. Lactopeptin ad oz. iv.
Fiat Mixt.
Sig. dr. i., P. C.
- Simpson.
- FOR CHAMBER.
- R Pot. Bicarb. dr. ii.
Bals. Peru. dr. i.
Cera Alb. dr. ½.
Lanoline. oz. ½.
Vaseline ad oz. ii.
Fiat Ung.
Use as directed.

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