

I. Describe the saphenous opening—the crural canal and crural ring. State how the ring is bounded and give the position of parts around it.—Explain the descent of a femoral hernia and give its coverings.

II. Describe the operation for ligating the external iliac artery. What difficulties may be met with in this operation?

III. Explain the course taken by the urine in extravasation of this fluid from rupture of the urethra.

IV. What structures will be divided in ligating the ulnar artery in the middle of the forearm, and what structures are to be avoided?

MATERIA MEDICA AND SANITARY SCIENCE.—DR. BERRYMAN.

I. What are the various surfaces through which medicinal agents may enter the system, and in what way is their presumed action modified?

II. How would you modify the action of opium by combination? Explain the physiological action of such combination.

III. Describe the physical construction of an aloe leaf—its commercial and botanical varieties.

IV. Name the agents with their doses that you would select to produce the following results:—diaphoresis in fever, expectoration in acute pneumonia and chronic bronchitis, spasms in traumatic tetanus, and as far as possible elaborate on the physiological action of each.

V. What is the presumed opinion of the action of all preparations of mercury and iron in blood formation? Write an ordinary prescription for chlorosis.

I. In case of erysipelas breaking out in an hospital what precautionary measures should be taken by the authorities or superintending surgeon?

II. What are the best and latest disinfectants, and how should they be applied in contagious diseases?

III. Give your views with regard to the most modern ideas of ventilation in public buildings.

IV. What sanitary measures should be resorted to in the chambers of those suffering from typhoid and typhus Fever?

V. What contiguous circumstances will modify the character of well water, and how would you remedy the same by the ordinary process of filtration?

PHYSIOLOGY.—DR. EDWARDS.

I. Describe briefly the structure of the skin. Mention its uses and demonstrate its importance as an excretory organ.

II. Describe the minute structure of the Liver, and state the several functions it discharges. Give the uses of the bile as a secretion and as an excrementitious substance.

III. Describe the mucous membrane lining the small intestines, and the glands situated within and beneath it, and give a summary of the changes in the food during its passage through this portion of the bowel.

IV. Describe briefly the process of secretion of the urine. Give the average quantity secreted in twenty-four hours. Mention some of the circumstances affecting its quantity and quality—the range of its specific gravity—its chemical reaction and its principal constituents in health.

V. Where is the purest blood in the body found? Why is it purest and how does it differ from blood elsewhere?

VI. Give the function of the medulla oblongata. Mention the origin and distribution of the pneumogastric nerve.—What would be the result of its division?

VII. How many pairs of spinal nerves are there? Which part of the spinal cord is motory and which sensory? What would be the result of division of the phrenic nerve, and what the results of partial and complete section of the spinal cord?

SURGERY AND SURGICAL PATHOLOGY.—DR. AIKINS.

I. Diagnose dislocation of ulna and radius backwards of elbow joint.

II. Diagnose acute periostitis of the tibia.

III. State the general and local treatment of acute inflammation, and illustrate your views by treating a case of acute orchitis, and also a case of traumatic inflammation of the brain or its membranes.

IV. What would lead you to believe that a patient had stricture of the rectum even without making a digital examination?

I. Treat fully an oblique fracture of the thigh bone in an adult. When high up how do you prevent shortening?

II. How would you preserve the proper length of the Humerus during treatment for fracture? (a) when high up, (b) when near the lower end.