

functions in general. The sympathetic nervous system. The organs of sense, especially the ear and the eye. Practical histological work will not be demanded, except in so far as the preparation, without the use of the microtome, of unstained tissue for microscopical examination is concerned. The paper will be so framed as to discover, by practical tests or otherwise, whether the candidate has actually dissected some readily available mammal, as the rabbit, dog, or sheep.

A candidate in Physiology will be required to forward to the Education Department, before the examination, a certificate on the form supplied by the Department that he has gone through a sufficient course of practical work in the subject occupying at least eighty hours.

- (21.) *General Hygiene*.—Composition, characters, and classification of drinking-waters. Sources of water-supply. The collection, storage, and distribution of water; constant and intermittent systems of water service compared. Sources of contamination, and protective precautions; the more common impurities of water. The examination of samples of water for impurities; estimation of hardness; effects of impure and insufficient supplies. Large-scale and domestic methods of filtering and purifying water; construction and action of water-filters. Composition, properties, and impurities of air; chemical and microscopical examination of samples of air for impurities. Quantity of fresh air required under varying conditions; air-space around and in buildings; overcrowding. Principles and methods of ventilation; natural and artificial ventilation compared. Effects of respiration and combustion upon composition of air. Classification and relative value and digestibility of foodstuffs. General principles of diet; quantity of each class of food required; energy obtainable from food. Standard diets. Care and preservation of food; putrefaction and fermentation; parasites introduced in food. Adulteration of food; methods of detecting adulteration. Methods and appliances for cooking food; general composition and dietetic value of meat, fish, bread, vegetables, fruit, milk, butter, cheese, eggs, tea, coffee, cocoa, condiments, sugar, and fermented beverages; brewing. Origin, composition, and classification of soils; moisture, air, and heat of soils; selection of building-sites; climate, temperature, sunshine, humidity, winds; properties of materials used in construction of various parts of a building; cause and prevention of damp; floor and wall coverings; methods and appliances for heating and lighting buildings. Materials and principles of clothing for children and adults. Disposal of surface and rain water, of excreta and house-refuse; construction and laying of drains, drain-testing; effects of sewer-gas; disinfectants, antiseptics, and deodorizers. Cleanliness, and attention to action of skin and bowels; use of soap; exercise; care of eyesight; rest, sleep. Influence of temperament, habits, idiosyncrasy, and heredity. Infection and disinfection. Parasites. The bearing of vital statistics on questions of public hygiene.

A candidate in general hygiene will be required to forward to the Education Department, before the examination, a certificate on the form supplied by the Department that he has gone through a sufficient course of practical work in the subject occupying at least eighty hours.

- (22.) *General Agriculture*.—Candidates will be expected to show that they have a practical as well as a theoretical knowledge of the matters set forth in the subjoined syllabus. What agriculture is; objects of the farmer; aid given by allied sciences. The soil—how soil is made, the contents of the soil; organic and inorganic constituents; plant-food in soil; nutrifying bacteria; classification of soils; relation of the soil to the plant; transportation of soils; examination of soils; indications determining the nature of a soil and its agricultural value; the texture of soil; causes of barrenness and of exhaustion of soil; the importance of good soil and how to obtain it. Value of drainage and irrigation; method of carrying out these operations. Importance of moisture in soil; how water is held in the soil; how the capacity for moisture in the soil may be increased; the conservation of moisture, indications that land needs draining. Tillage—its effects on soil; methods and implements for tillage. The enrichment of the soil and the object of it; farm resources, their value and management. Classification, composition, properties, and management of manures; indications determining the selection of manures; soils and crops for which manures are best suited. The