proteids, extractives, mineral matter or ash, water, volatile products; vitamins; enzymes; separation of the most commonly occurring carbohydrates, proteids, and fats; testing of flour, meal, cereals, sugar, syrup and molasses, edible oils and fats, butter, milk, meats, tea, coffee, cocoa; study of fermentation, yeast, baking-soda, cream of tartar, baking-powder, vinegar, water, soap, caustic and washing soda, borax, bluing, bleaches; the effect of alkalies and organic acids on bright and tarnished metals such as copper, zinc, iron, &c.

(ii) Food Production and Manufacture: Questions based upon the following course—The preparation of the various staple foods from the raw stage to the finished product in marketable form, including the composition, nutritive value, and cost of the available materials—*e.g.*, fruits, vegetables, sugars, meats, edible oils, dairy-products, tea, coffee, chocolate, alcoholic beverages, spices, and condiments; the processes of drying, salting, smoking, canning, and preserving, together with the question of adulteration and substitution; laboratory work, consisting of physical and chemical tests to indicate the composition, purity, and availability of the product; the economic value of the material as ascertained by test.

(iii) Food-preparation: (1) The preparation of food materials based on a knowledge of their composition and the chemical changes effected by heat and moisture; the relative value of cooking processes in retaining nutritive principles in most digestible form, especially the methods of preparation best suited to available forms of a given food material. (2) Study of recipes, to determine how they carry out these principles and economize material, fuel, and labour; the adaptation of established recipes, domestic and foreign, to new-process food materials; the grouping of recipes according to their type forms. (3) Study of the psychological and physiological effect of pleasing flavours; attractiveness and variety in serving; methods of accomplishing these results with a minimum of labour and expense. (4) The cost of food and marketing. (5) Discussion of materials and recipes suitable for school use.

Candidates in Domestic Science will be required to forward to the Department a certificate on the prescribed form that they have carried out satisfactorily a course of practical work in the subject, occupying at least sixty hours.

(14) (*a*) *Biology* (three-hour paper).—General biological phenomena as illustrated by certain unicellular organisms; cells and tissues of multicellular organisms (to be treated generally); elementary structure and physiology of a vascular plant. General survey of the plant kingdom, as illustrated by algæ, fungi, bryophytes, pteridophytes, and spermatophytes (to be treated very generally); general survey of the animal kingdom to be treated rather as natural history than from structural aspect. The web of life; life-histories of social insects. Symbiosis, parasitism, plant associations; carnivorous plants. General ideas about variation, heredity, evolution, Mendelism, hybridism. Behaviour in unicellular animals. Evolution in relation to the human race.

A candidate in Biology will be required to forward to the Department a certificate on the prescribed form that he has carried out satisfactorily a course of practical work in the subject occupying at least sixty hours.

Or,

(*b*) *Botany* (three-hour paper).—The structure, physiology, and life history of the following types: Amœba, Sphærella (Hæmatococcus), Volvox, Spirogyra, Hormosira, or any Fucoid, Bacteria, Mucor, Agaricus, the yeast plant, Polytrichum or any moss, Pteridium or any fern, Selaginella, Pinus. The general morphology, histology, and physiology of Angiosperms, including simple physiological experiments. The characteristics of the following Angiosperm families, with special reference to their New Zealand representatives: Graminaceæ, Liliaceæ, Fagaceæ, Ranunculaceæ, Cruciferæ, Rosaceæ, Leguminosæ, Myrtaceæ, Scrophulariaceæ, Compositæ. The elements of plant œcology, with appropriate field-work. The elements of plant cytology. Variation, heredity, evolution, and related problems.

A candidate in Botany will be required to forward to the Department a certificate on the prescribed form that he has carried out satisfactorily a course of practical work in the subject occupying at least sixty hours.

Sensation, visual acuity; colour discrimination; auditory acuity; discrimination of pitch; spatial threshold. Attention and perception—range of visual attention; spot pattern tests; form boards; cancellation tests. Learning association and memory tests. Suggestibility. Imagination—ink, blot tests; Meumann, Masselon and Ebbinghaus' completion methods; essay-writing from various suggested themes and cue words. Abstraction. (iv) Vocabulary and information tests. (v) Tests of fatigue, direct and indirect. (vi) Construction and use of "general intelligence" tests. Individual, as the Binet Simon tests and Terman tests. Group, as the Terman. National, Northumberland, Otis tests.