

16. Electric wiring for light and power.
17. General knowledge of building by-laws as fixed by Government, local authorities, and fire underwriters.
18. Standard conditions governing building contracts.
19. Specifications for bricklayer, stonemason, structural engineer, carpenter and joiner, plumber, drainlayer, electrician, painter, glazier, and paperhanger; plasterer.
20. Estimating; quantities.

#### CABINETMAKING.

(i) No special preliminary examination will be conducted, but candidates will be regarded as passing the preliminary examination when they have fulfilled the requirements for a senior free place in the subjects of trade drawing, freehand and instrumental drawing and design, and woodwork.

(ii) Any candidate who presents a certificate from the Principal of a technical school or the local Apprenticeship Committee concerned with his trade, to the effect that he has made satisfactory progress for two years, either in an approved course at the school or in an approved workshop, may also be regarded as having passed the preliminary examination, provided that such candidate submits specimens and drawings certified to be his own unaided work and submits evidence of satisfactory progress in the study of industrial design. The decision of the Director, in such cases, shall be final.

NOTE.—Any application submitted under (ii) above must be accompanied by all the necessary particulars and must be forwarded so as to reach the Director not later than 30th June immediately preceding the candidate's entry for the intermediate grade examination.

#### 1. INTERMEDIATE.

- (a) Drawing and design for furniture and cabinetmaking.
- (b) The working-out of scale drawings and setting-out of full-size working drawings, showing details and methods of construction. The preparation of plans, elevations, and sections from small-scale drawings.
- (c) Plane and solid geometry as applied to cabinetmaking. Freehand lines for brackets and mouldings.
- (d) Drawing and the study of natural forms suitable for embellishment: wood-carving; surface decoration—*e.g.*, inlay parquet, marqueterie, intarsia, treated in an elementary way; application of each of these methods to floral and geometrical pattern. Harmony of decoration with the type of construction employed and the use for which the object is planned.
- (e) A knowledge of New Zealand timbers and their properties—*e.g.*, rimu, kauri, beech, taraire.  
An elementary knowledge of Australian timbers—*e.g.*, Tasmanian blackwood, jarrah, Queensland maple, cedar, silky oak; and of foreign timbers such as oak, walnut, mahogany, sycamore, teak.
- (f) The most suitable woods for construction. Groundwork and veneers: the best methods of seasoning and preparing for their various uses. Veneering on plane and curved surfaces. Various appliances for veneering. Preparation of veneers, and the best methods of making work stand after veneering.
- (g) Cabinetmaking tools, their care and use. The economy and advantages of woodworking machinery. Setting-out of work for hand-tools and machines.
- (h) Plain jointing, cooper joints, dowelling, tonguing, dovetailing.
- (i) The descriptions and names of different parts of pieces of furniture, such as pilaster, capital, frieze, plinth, base, surbase, &c.; also of mouldings. approximate sizes of furniture. Modes of building circular rims: curved panels, and shaped work generally.
- (j) Cabinet brasswork and furnishings: Hinges, joint-stays, bolts, and locks; the best methods of fixing, and their different advantages.

#### 2. FINAL.

Candidates for the final examination will be required to pass a written examination, and also to produce specimens of drawing and practical work.

##### (1) *Written Examination.*

The examination will include advanced questions on some of the preceding subjects, and in addition a knowledge will be required of—

- (i) Principles and proportions in designing furniture with regard to its use and the material employed. The making of cutting-lists.
- (ii) Mechanical actions such as are used in cylinder fall desks, writing-tables, dumb-waiters, &c.; the different methods of expanding dining-tables.