

THE INSTITUTE OF CARPENTERS



Fellowship Examination

12th - 16th June 2000

Paper 1: JOINERY PRACTICE

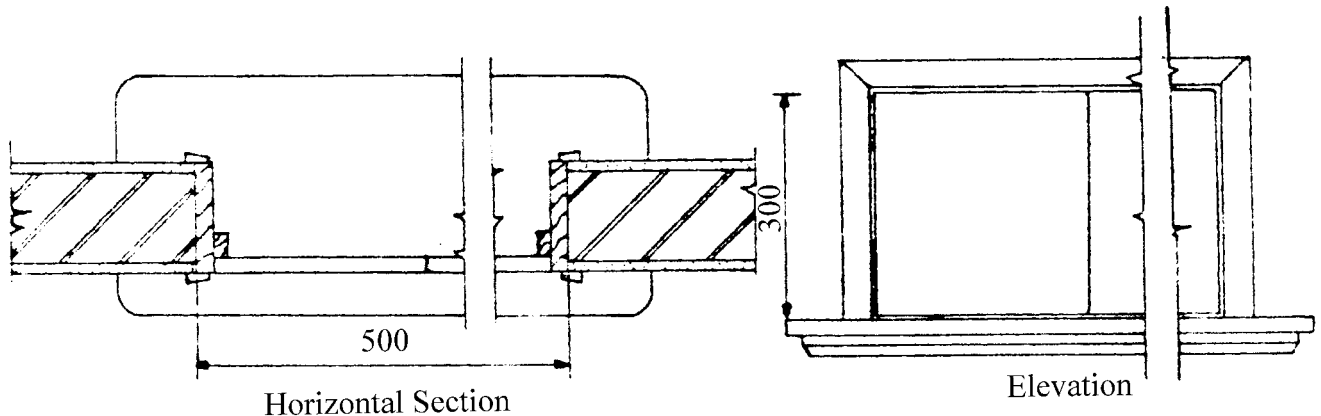
TIME ALLOWED: THREE HOURS

The following instructions should be read by all CANDIDATES before they commence work.

To obtain full marks Candidates must answer SIX questions. The answer to each question should be submitted on a separate sheet of paper.

The question number and your candidate number must be clearly written in the top right-hand corner of each answer sheet.

1. The drawing shows part horizontal section and elevation of a serving hatch between a Dining Room and Kitchen. The softwood joinery is to be of the highest standard.
 - (a) Write out a specification for the materials and workmanship as in a preamble to a Bill of Quantities.
 - (b) Describe the ironmongery to be used and its fittings.
 - (c) Make out a cutting list for one serving hatch.



2. Explain the duties of each of the following in a joinery organisation :-
 - (a) Setter out;
 - (b) Estimator;
 - (c) Works Manager.
3. (a) A straight flight of stairs is to be constructed between the Mezzanine and ground floor of the Departure Lounge of an airport. The building regulations provide instructions for the design which includes a centre handrail.
Describe the relevant clauses.
 - (b) The height of the mezzanine floor above the ground floor is 2.700 m, calculate a suitable rise and going to comply with current Building Regulations.
4. A bar and fitments for a restaurant have been prepared in a Joinery workshop. State the precautions necessary to protect these items when they are :-
 - (a) Stored at the works awaiting despatch to the site;
 - (b) Being transported to the site;
 - (c) Fixed in their respective positions.

5. (a) An existing joiners shop and machine shop has been found by the local inspectorate to have inadequate fire protection to the walls, floors and doors. Fire Regulations require compartmentation of such buildings.
Define the main requirements.
- (b) The compartment wall is to be penetrated by a doorway, state :-
 - (i) The main principles that influence the design;
 - (ii) How they would be applied in practice.

6. A joinery workshop has received an order for a batch of cased frames and sash windows for a modernisation scheme in an inner-city location. The specification states that as far as practicable the new window units must match the existing work.
 - (a) Describe the Surveyor's report indicating what will be required by the setter-out so that production can commence.
 - (b) State **TWO** methods of balancing the sashes in a cased frame.
 - (c) Describe the fitting and fixing requirements of **ONE** of the suggested methods.

7. A Joinery works has installed a spindle moulder and a high speed router in it's Machine shop.
 - (a) Describe the machines and compare their main functions and use.
 - (b) State two examples of work for which each could be used and equipment or cutters required for it's manufacture.
 - (c) Explain by means of sketches and notes, **THREE** different jigs that can be used in the Woodworking Machine shop to assist in the manufacture of joinery items.

8. The following is an item from a Bill of Quantities:
 "One teak, solid moulded panelled door 800 x 2000 x ex. 50, with ex.100 stiles, muntins, top and intermediate rails, ex. 250 bottom rail, divided into No. 8 equal ex. 25 solid raised and fielded panels. Finish for polish."

- (a) Draw to a scale of 1:10, an elevation of the door and indicate the finished sizes of components.
- (b) Write a specification for the door based on B.S. 1186.
- (c) State information that is given in a typical door schedule.