



The Institute Of Carpenters

ADVANCED CRAFT EXAMINATION

Wednesday June 16th 2004

THEORY PAPER B

TIME ALLOWED THREE HOURS

Total Time Allowed For Papers A and B

THREE HOURS

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

Section B: Consists of **8** questions only **FOUR** of which are to be answered.
All questions carry equal marks.

Each answer **MUST** be submitted on a separate sheet of paper, and your candidate number **MUST** be written in the top right hand corner of **EACH** answer sheet in the box provided.

Advanced Craft Examination

Associated Vocational Technology (Section B)

(Answer FOUR questions only)

1. Woodworking machinery is to be installed into a joinery workshop to aid the production of all types of stairs.
 - (a) Sketch a plan of the proposed workshop layout naming the machines and indicating their relationship to each other.
 - (b) List the machines to be included and state the operations each will be required to perform in stair manufacture.
 - (c) Explain how the proposed layout will aid efficient production and maximise output.
 - (d) State **THREE** Statutory Notices which are required to be displayed in the completed workshop.

2.
 - (a) To a scale of 1:20 draw the first floor plan to the dimensions shown in figure 1, to include first floor joists at 400 centres and trimming, indicating names of members and timber sizes.
 - (b) Explain with the aid of sketches the function of **TWO** of the following relating to upper floors :-
 - (i) Tusk tenon; (ii) Strapping; (iii) Hangers.

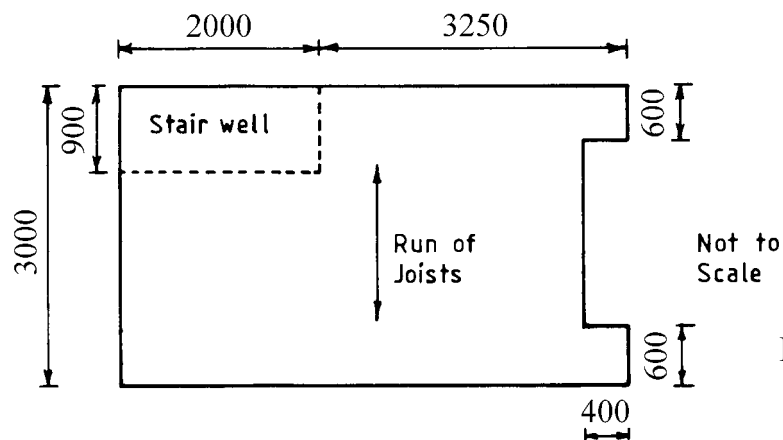


Fig. 1

3. Sketch, and indicate the differences between, the following joints :-
- (a) A haunched tenon and a franked tenon.
 - (b) A tenon shoulder which is scribed by :-
 - (i) Hand; (ii) Machine.
4. Figure 2 shows an exterior door frame with side light manufactured from **ex 100 x 63** head and jambs with **ex 150 x 75** sills.
- (a) Prepare a cutting list for **TEN** of the frames.
 - (b) Calculate the number of cubic metres of timber required allowing 50mm for the horns, 20mm for each tenon, and adding 10% for waste.
 - (c) If the price of timber is £340.00 per cubic metre, calculate the cost, adding on VAT at 17.5%.

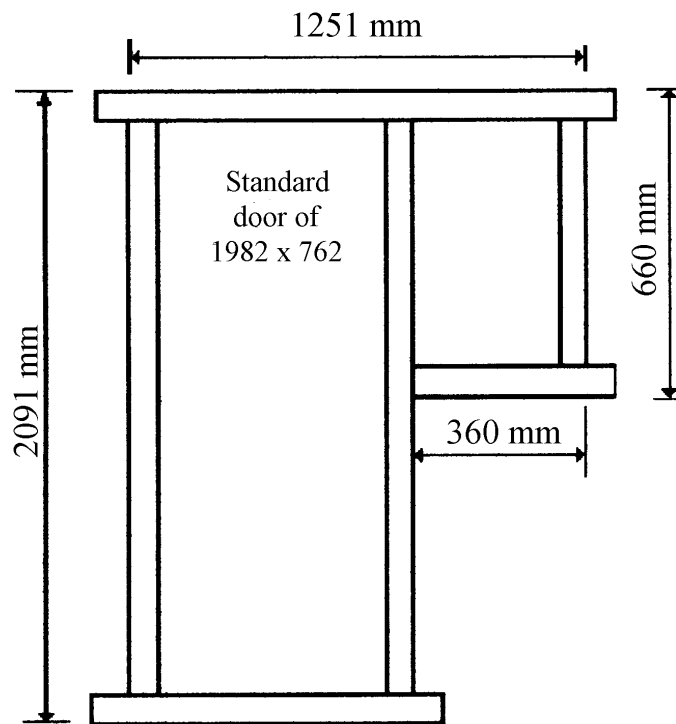


Fig. 2

5. Sketch **TWO** different methods of securing a solid timber counter top to its framework, to include allowance for timber movement.

6. A timber ground floor is suspected of being attacked by dry rot.
 - (a) List **THREE** ways in which dry rot can be identified.
 - (b) List **THREE** possible causes.
 - (c) List in order the sequence of operations required to restore the floor to its original condition.
 - (d) Name **TWO** methods of applying preservative to the new floor timbers.

7. A room is to be built into the roof space of an existing bungalow, the pitched roof is of traditional construction and covered with concrete tiles. A new floor is to be constructed by placing deeper joists alongside the existing ceiling joists.
 - (a) Describe with the aid of sketches a method of providing the following :-
 - (i) Sound reduction through the new floor;
 - (ii) Heat loss through the roof.
 - (b) Compile a list of **THREE** sound insulating materials, giving a brief description on **ONE** type to include health and safety requirements during installation.

8. Sketch details for a one hour fire check door to show :-
 - (a) A horizontal section through the frame and part of the door;
 - (b) The position, number and type of hinges required.

Institute Membership

Member membership of the Institute of Carpenters is available to candidates achieving success in the Institute's Advanced Craft Examination, also to Teachers/Lectures/Instructors of Woodcrafts possessing a trade background.

Further information and application forms may be obtained from

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