



The Institute Of Carpenters

ADVANCED CRAFT EXAMINATION

(Formerly Membership Examination)

June 12th 2001

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.

Member Examination

Associated Vocational Technology (Section B)

*(Answer **FOUR** questions only)*

1.
 - (a) Name **FOUR** portable powered **hand tools** that may be used by a carpenter on site.
 - (b) State for each tool listed :-
 - i) A practical application;
 - ii) **TWO** safety precautions to be observed which will ensure its safe operation.
 - (c) Describe with the aid of sketches a sequence of safe operational procedures for using a portable electrically powered saw (Skill-Saw) on-site to cut lengths of 350 wide boards from a 2440 x 1220 x 25 blockboard/MDF sheet.

2. An order to a timber merchant is as follows :-
25 pieces 2500 x 225 x 50
18 pieces 3700 x 100 x 38
8 pieces 4300 x 200 x 25
12 pieces 2700 x 75 x 75
Calculate :-
 - (a) The total cost of the timber if lm^3 costs £270.00
 - (b) The final cost of the order when 2.5% is deducted for prompt payment and 17.5 % added for V.A.T.

3. The full-size moulding shown in figure 1 is fixed to a wall above a ramp at an angle of 30° to the horizontal.

To a scale of 1 : 1 geometrically develop the shape of the level moulds marked A and B which would intersect correctly with the given raking mould section.

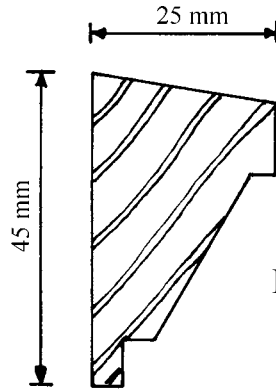
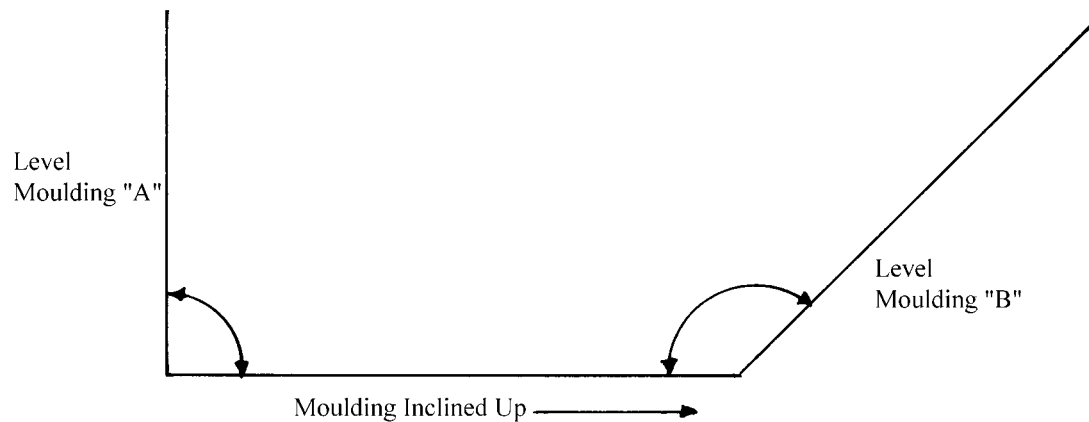
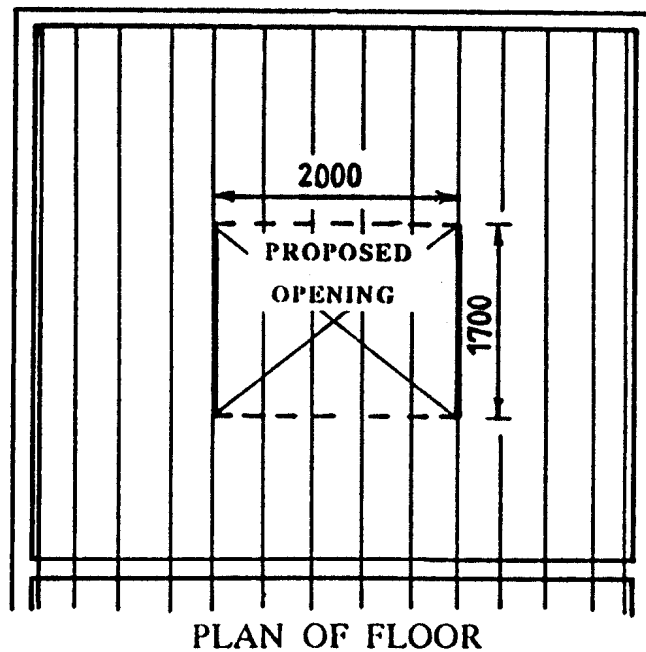


Fig. 1



4. (a) A joinery workshop contains a selection of woodworking machinery.
- (i) State **TWO** statutory notices that must be displayed in the joiners shop.
 - (ii) Briefly describe the contents of **ONE** notice.
- (b) State **TWO** advantages and **TWO** disadvantages of using :-
- (i) Full size rod drawings;
 - (ii) Broken line rod drawings.
- (c) List **FOUR** items of information that can be obtained from a rod drawing.

5. Figure 2 illustrates the position of an opening to be formed in the timber floor of a grain store situated 3000 above the concrete ground floor. Describe with the aid of sketches :-
- (a) Safety measures to be taken to protect the structure while forming the opening.
 - (b) A method of jointing the trimmed joists to the new trimmer joists.
 - (c) A method which may be used to strengthen the trimming joists.



Note :
Joists exposed
on underside

Fig. 2

6. A dormer with a 45 degree pitched roof and a window opening 900 wide and 1200 high is to be constructed in a 45 degree pitched roof. The main roof is of traditional construction with 50 x 100 softwood common rafters.

Draw to a scale of 1: 20 the following details to show how the opening in the main roof is trimmed and the dormer is constructed :-

- (a) A vertical section through the main roof and Dormer;
- (b) A front elevation of part of the main roof to show the construction of the dormer.

7. A traditional sliding sash window shows signs of rot in the cill which will need replacing.
- (a) Using notes and sketches, describe how this operation can be carried out.
 - (b) State **ONE** likely defect that allowed the cill to rot.
 - (c) State **TWO** hardwood species that would be best suited for external use.
 - (d) Describe how the new cill can be protected from future decay.
8. Details of a free-standing domestic fitment required for the catering department of a college are shown in figure 3. The 32mm thick worktop of the fitment is to be covered with plastic laminate and to have drawers and sliding doors under as indicated. For hygienic reasons, flush surfaces are required throughout.
- (a) Draw to a scale of 1 : 5 a vertical cross section A - A through the fitment to show full constructional details.
 - (b) Sketch a broken vertical section through the track and runners suitable for the sliding doors

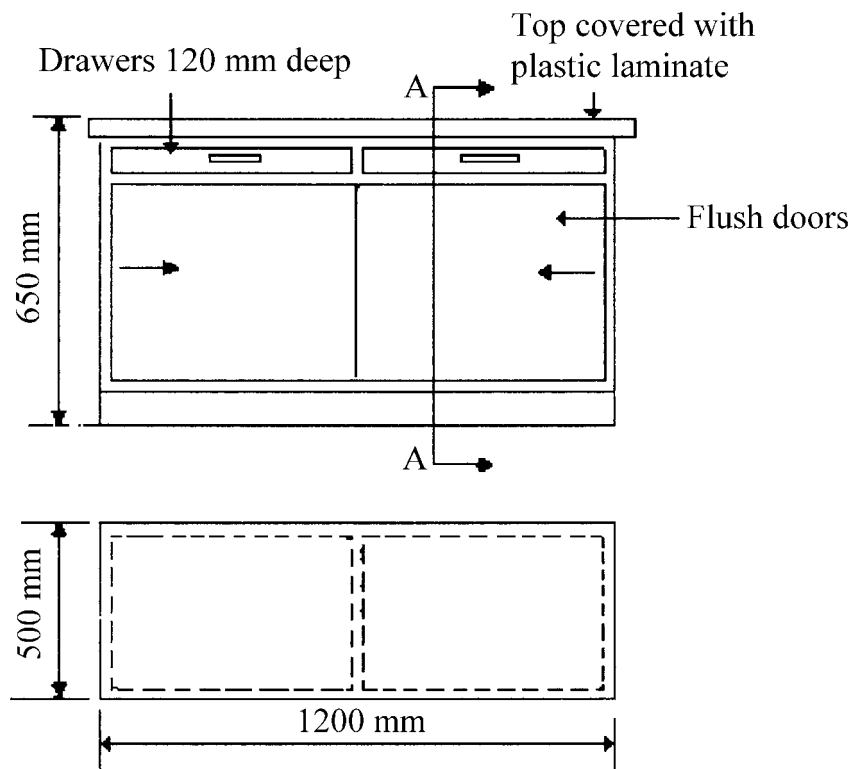


Fig. 3

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

Institute of Carpenters, Central Office, 35 Hayworth Road,

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