

CANDIDATE No.

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The Institute Of Carpenters

INTERMEDIATE EXAMINATION

Tuesday June 13th 2006

THEORY PAPER

TIME ALLOWED ONE AND A HALF HOURS

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

To obtain full marks Candidates must answer **ALL 20** questions

All questions carry equal marks

Answers **MUST** be submitted on the question paper immediately below the question

Your candidate number **MUST** be written clearly in the top right hand corner of this sheet

This question paper remains the property of the

Institute of Carpenters

and all USED AND UNUSED PAPERS **MUST** BE RETURNED after the examination

Name:

Date of Birth:

Occupation:

1. a) State why it is important to have the correct moisture content for various timber components in building construction.
- b) Suggest a moisture content for hardwood timber floor boarding.

a)

b)

2. List the various portable electric tools that would be used for the different operations listed below.

Operation	Power Tools
Assembling the screwed sections of flat packed kitchen units	
Cutting laminate work top for inset sink	
Fixing wall units to brick and plaster wall.	

3. Complete figure 1 to show the rear elevation of a 1982 x 762 mm, ledged, braced and battened door. Indicate also the following :-
- (i) Hanging side; (ii) The names and dimension **for all** the components.

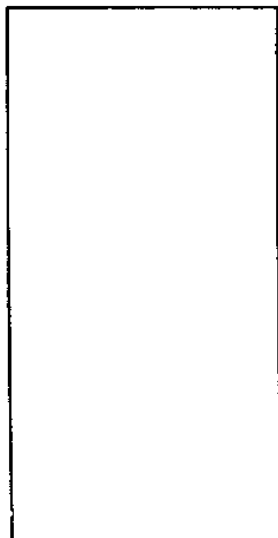


Fig.1

4. Describe, with the aid of sketches, a method of fixing a high level wall cupboard to a light-weight block wall.

5. Figure 2 shows the vertical section through a dado panelling. Identify the parts indicated.

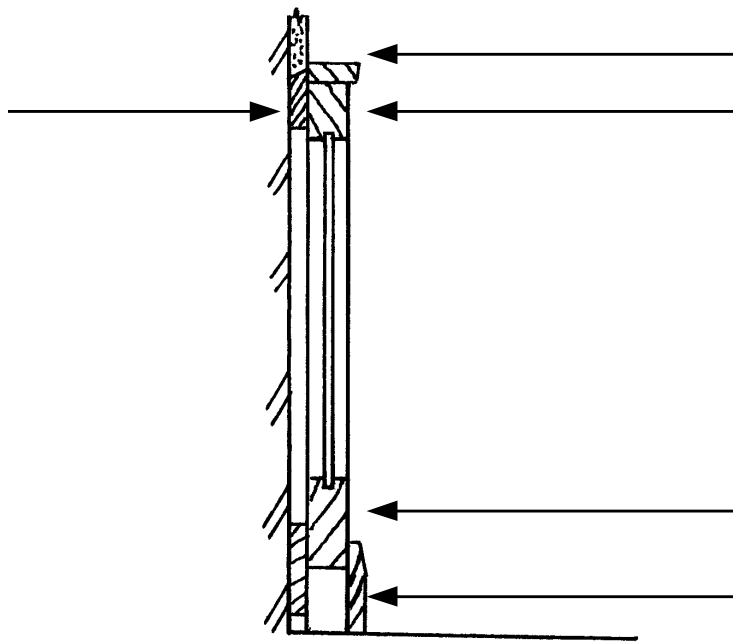


Fig.2

6. Using notes and sketches briefly describe the construction procedure and fixing of an in-situ timber stud partition.

7. a) Name **TWO** parts of a step ladder.
 b) Name the protective coating that may be applied to timber ladders.
 c) With regard to Scaffolding state the function of a:-
 (i) Guard rail; (ii) Toe board.

a)

b)

c)

8. a) State **ONE** type of adhesive recommended for fixing plastic laminates to plywood worktops on site.
 b) List **FOUR** safety precautions to be observed when using this type of adhesive.

a)

b)

9. Calculate the metre run of 150 x 18 mm softwood floor boarding required for a room 5.6 m by 2.9 m adding 12.5% for cutting and waste.

Metre run required =	
+ 12.5% =	
Total metre run =	

10. Complete the table below by stating a different type of lock which may be used in each of the situations indicated.

Situation	Type of Lock
External Panelled Door to a domestic Dwelling	
Ledged and Braced Door to a Portable Building	
Pair of Wooden Gates to a Compound	

11. Complete figure 3 to show the finishes, including lining, around a doorway opening in a stud partition.

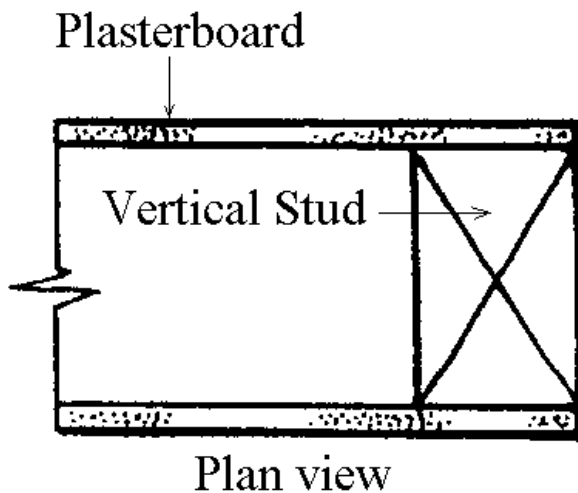


Fig.3

12. a) Name the type of joint used on a skirting board at;
 (i) An internal angle/corner; (ii) An external angle/corner.

(i)
(ii)

- b) Describe the function of a Plinth Block.

13. With reference to laying softwood flooring, sketch and describe **TWO** methods used to ensure tight fitting edge joints.

14. a) State **TWO** situations where a spirit level may be used;

a)

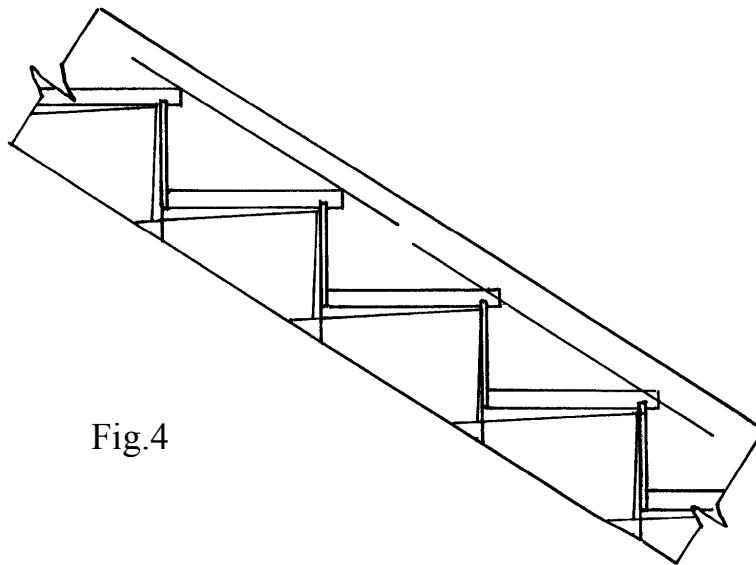
- b) Describe the methods used to ensure the vertical alignment of a door frame other than the use of a plumb level.

b)

15. a) Sketch **ONE** type of hinge used in the construction of a Stormproof Casement sash window.

b) State the type of common joints used in the construction of the sash.

16. a) Complete figure 4 to indicate the following :-
(i) Nosing; (ii) Pitch Line; (iii) Margin; (iv) Rise; (v) Going.



b) State the formula used to determine the ideal ratio of the tread rise and going.

17. "Cup shakes" are common occurrences in structural timbers.
Using notes and sketches, describe this effect.

18. State the type of fire extinguisher that would be necessary in an area where petroleum based items are being stored.

19. Figure 5 shows the elevation and part plan of a hipped ended roof.
Indicate on the details the :-
- (i) True length of one hip rafter.
 - (ii) Plumb and seat cut of one hip rafter.
 - (iii) Plumb and seat cut of one common rafter.

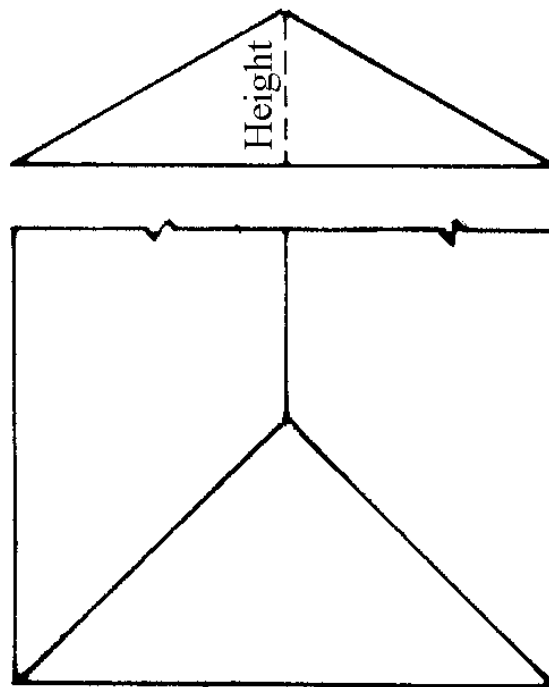


Fig. 5

20. a) Describe using notes and sketches, visual signs on timber, which would indicate that it is affected by :-
(i) Wet rot; (ii) Dry rot

- b) State the **maximum** moisture content of timber before rot is likely to occur.