CANDIDATE No.

4 I



The Institute Of Carpenters

A

INTERMEDIATE EXAMINATION

Tuesday June 15th 2004

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:				R	egia	n						
Occupation:										A	ge	

- 1. Describe the methods used to solve the following problems :-
 - (a) Loose and squeaky floorboards;

2.

3.

(b) Kitchen units that have tight fitting drawers, without planing.

a. b. With reference to the use of modern portable electrical power tools, (a) State in which circumstances does a power tool **<u>not</u>** require an earth wire. (b) List **THREE** safety precautions when using a portable electric circular saw. 1. 2.

(a) Using single lines, complete figure 1 to show the front elevation of a proposed in-situ timber studwork partition to include a doorway which is positioned <u>900 mm</u> away from the left hand wall.

Marks



- (b) Indicate the names of the timber components.
- (c) State the recommended centres for the vertical studwork, when using 9 mm plasterboard.



- (a) Safe working angle;
- (b) Recommended height above step off point;
- (c) Method of securing the ladder at the top.

- 5. State **TWO** advantages of using Double Glazed window units in house construction.
 - 1.

 2.

(b) Describe the signs that indicate that a unit has ceased functioning.

6. (a) Complete figure 2 to illustrate **TWO** methods of strutting timber upper floor joists.









(b) State **ONE** reason for strutting timber upper floor joists.

7. Tick the appropriate box in the table below to indicate the total number of running metres of timber which may be obtained from one cubic metre for each of the sectional sizes given.

Section	133.333 metres	200 metres	66.667 metres
100 x 50			
200 x 75			
150 x 50			

8. Describe and illustrate **THREE** methods of secret fixing wall panelling.

9. State the use of each of the following hand tools :-(a) Sliding Bevel;

(b) Paring chisel;

(c). Marking gauge.

10. (a) Tick the appropriate box to classify the listed timbers into their respective Softwood and Hardwood categories.

Timber	Softwood	Hardwood
Parana Pine		
Ash		
Beech		
Western Red Cedar		
Hemlock		
Oak		

(b) State which of the above listed timbers is the most suitable Softwood and Hardwood for external use.

Softwood	Hardwood

11. Air drying and Kiln drying are two methods used to reduce the moisture content of timber.

(a) Describe each process;

(b) State which of the two methods is the most efficient in reducing moisture content.

12. (a) Describe a use for each of the following items of ironmongery :-(i) Chemically activated fixing; (ii) Rawlbolt.

(i) (ii) (b) Describe TWO methods of securing a shelf batten to a hollow plasterboard partition. 1. 2.

13. Name the items of ironmongery illustrated in Figure 3.



a.	
b	
c.	

Marks 14. Figure 4 below shows a straight flight of stairs to a **PRIVATE** house. (a) In the box below list the components indicated. Bulkhead or Obstruction a. 1)b. c. a) -2) d. b) e. g) f. c) g. (b) List the current Building Regulations dimensions in the box below. 1. e` 2. 3.

Fig. 4

15. Complete Figure 5 to show a vertical section through the <u>flush eaves</u> of a pitched roof to include a fascia board, 30° rafter and ceiling joist.



Fig.5

16. Describe, with the aid of sketches, the safe storage on site and necessary protection for any **TWO** of the following :-

(a) Sheet material (Plywood); (b) Carcasing Timber; (c) Door frames.

16. Figure 6 shows a four panelled internal door. List the assembly sequence of the door.





Fig. 6

18. Name and sketch a suitable joint for ONE of the following situations:-(a) Drawer side to front; (b) Rebated external door jamb to head.

19. A flush 45 mm solid core half hour fire check door is specified for a hotel bedroom entrance door. State the minimum requirements and materials/ironmongery required relating to :-

(a) Door stops; (b) Closing arrangements.

a	
b.	

20. Sketch details of how a mould box for a concrete sill would be constructed from the details shown in figure 7.



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