

CANDIDATE No.

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# The Institute Of Carpenters

## INTERMEDIATE EXAMINATION

**Tuesday June 14th 2005**

### 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. Complete the table below, indicating a suitable moisture content for each of the given situations.

Situation	% Moisture content
General carcasing timber	
Roofing timbers	
Joinery timber for a centrally heated office	

2. Describe and sketch the method of repairing a lock stile of a four panel door which has been damaged in an attempted break-in.

3. State the reason why an "Easy-Clean" type of hinge is recommended for use on windows above the 1st floor in a high rise block of flats.

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4. (a) State **FOUR** of the current safety requirements with reference to **either** of the following woodworking machines :-

(i) Circular saw; (ii) Surface planer.

1.

2.

3.

4.

5. State **THREE** safety precautions to be observed when applying a timber preservative treatment to garden furniture.

1.

2.

3.

6. Give **TWO** examples where a Dead shore would be used.

7. Sketch a section through hardwood strip flooring indicating the method used for secret fixing.

8. State **FIVE** safety requirements when using a mobile scaffolding.

1.

2.

3.

4.

5.

9. Pipe boxing is to be provided around the incoming mains water supply and stop-cock controls of a domestic house. Describe the constructional features the boxing-in should incorporate.

10. (a) State the use of a scale rule;

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(b) State the true length of a 15 mm long line that has been drawn to a scale of 1:20;

(c) Complete the drawing at Fig. 1 to form the outline for a segmental arch.

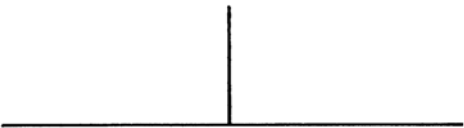


Fig.1

11. Complete the table below to indicate where each of the types of adhesives listed may be used and include **ONE** reason for your choice.

Adhesive	Situation Used	Reason
Polyvinyl Acetate		
Synthetic Resin		
Contact		

12. (a) Describe with the aid of sketches, how an external door frame may be fixed during the construction of the cavity wall.

(b) State how the frame may be checked for plumb and twist.

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13. List **FIVE** items of ironmongery required to hang and secure a hardwood panelled external door.

1.
2.
3.
4.
5.

14. Calculate the floor area for a room which is 4.2m long x 3.5m wide adding 12% for waste.

Area of room =	
+ 12% =	
Total area =	

15. (a) Name the following types of screw head in Fig.2.



(a)



(b)



(c)

Fig. 2

(a)
(b)
(c)

(b) List **FIVE** items of information which are required when ordering screws.

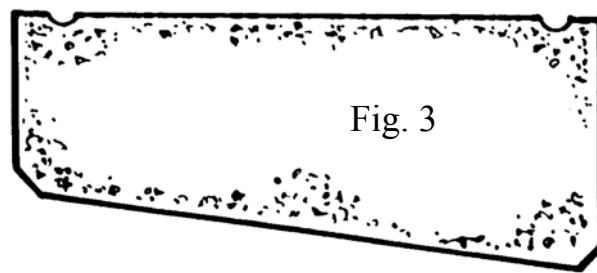
1.
2.
3.
4.
5.

16. Using the information supplied, complete the table below where applicable, the current Building Regulations on stairs.  
155 – 220, 245 – 260, 135 – 180, 280 – 340.

Stair in a private dwelling			Stair in an institutional building	
	Minimum Dimension	Maximum Dimension	Minimum Dimension	Maximum Dimension
Step Rise				
Step Going				

17. With the aid of sketches describe **THREE** defects which may occur when timber is seasoned.

18. Fig. 3 shows the vertical section through an inverted concrete coping stone. Complete the figure to illustrate a mould box suitable to pre-cast the item.



19. Describe the correct usage of the following types of gauges :-  
(a) Marking gauge; (b) Cutting gauge; (c) Mortise gauge.

(a)

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(b)

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(c)

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20. Using notes and sketches, describe how :-
- (a) Roof trusses are fixed onto the wall-plate.

(b) Lateral movement of the roof trusses is restricted.