

CANDIDATE NAME

CANDIDATE No					
9	8				

THE INSTITUTE OF CARPENTERS



PRE-VOCATIONAL CERTIFICATE EXAMINATION

3rd June 1998

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** questions
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

1. Name the item of ironmongery shown in Fig. 1 and indicate on the drawing how its length is measured.

Mark

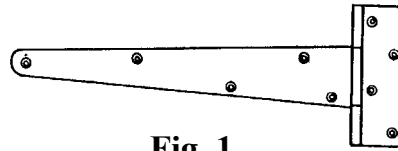


Fig. 1

2. State the purpose of a wallplate on the top of a sleeper wall.

3. Describe the treatment necessary for formwork prior to pouring the concrete.

4. State **Three** safety checks to be made before using an extension ladder.

1.

2.

3.

5. Using a compass and a ruler, construct an octagon within the square shown in Fig. 2.

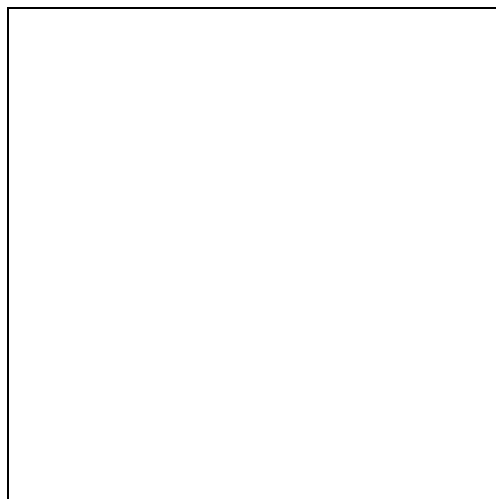
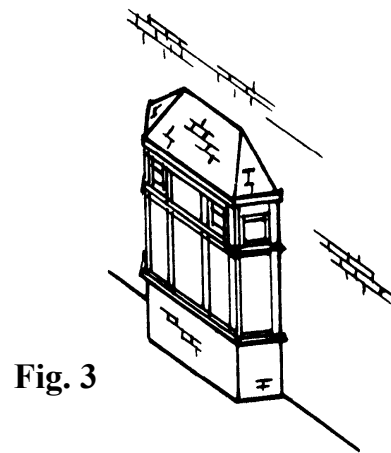


Fig. 2

6. Name the type of window illustrated in Fig. 3

Mark

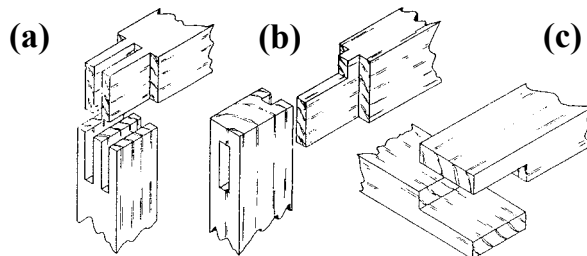


7. The storage time of P.V.A. adhesive is called the : -

8. State **ONE** use for each of the following :-
(a) Plumb-bob; (b) Spirit Level; (c) Chalkline; (d) Straight-Edge;
(e) Water Level.

a.
b.
c.
d.
e.

9. Name the joints shown in Fig.4.



(a).
(b).
(c).

10. Complete the table below, listing **FOUR** types of handsaw commonly used by a carpenter and/or joiner stating a different use for each.

Mark

Name of Saw	Use

11. With the aid of a sketch indicate the construction of PLYWOOD.

12. State **ONE** reason why hollow flush doors are ventilated.

13. Calculate the cost of the following order : -

£ p

8 No. Boxes 1" No 8 Steel Csk. Screws @ £2.45 per Box

6 No. Boxes 2" No 10 Brass Csk. Screws @ £18.20 per Box

3 No. Boxes 3" No 12 Steel Csk. Screws @ £14.40 per Box

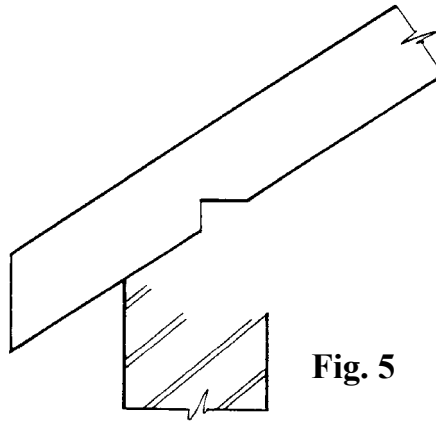
Total _____

14. State **TWO** main causes of Dry Rot.

1.
2.

15. Fig. 5 shows an incomplete eaves detail. Complete the drawing by putting in the wallplate, fascia board, ceiling joist and soffit.

Mark



16. List **FIVE** of the trades which are involved in the construction of a domestic dwelling other than a carpenter or joiner.

1.
2.
3.
4.
5.

17. When removing a nail with a pair of pincers, what precaution is necessary to prevent damaging the wood?

18. Describe with the aid of a sketch a method which may be used to support a shelf fitted between plastered brick walls.

19. When working in a Joinery workshop suitable clothing should be worn. List **FOUR** types of accident which could occur through ignoring this rule.

1.

2.

3.

4.

20. Sketch a stopped housing joint that may be used to fix a shelf to the end of a cupboard unit.

21. Complete the vertical section through part of the glazed opening in an external flush door shown in Fig. 6 to include a method of retaining the glass.

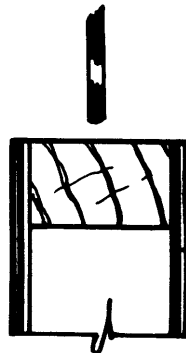


Fig. 6

22. Name **TWO** treatments which may be given to ironmongery to prevent corrosion of the metal.

1.

2.

23. State **ONE** advantage and **ONE** disadvantage of the following joints used when fitting skirtings.

Mark

	Advantage	Disadvantage
Mitre		
Scribe		

24. Calculate the equal spacing between eight 50 mm thick joists positioned between two walls 3.300 metres apart, allowing a gap of 50 mm between each outside joist and adjacent wall.

25. Describe a method of sanding by hand :-

- (a) A softwood door that is to be painted;
(b) An oak table top in preparation to receive varnish.

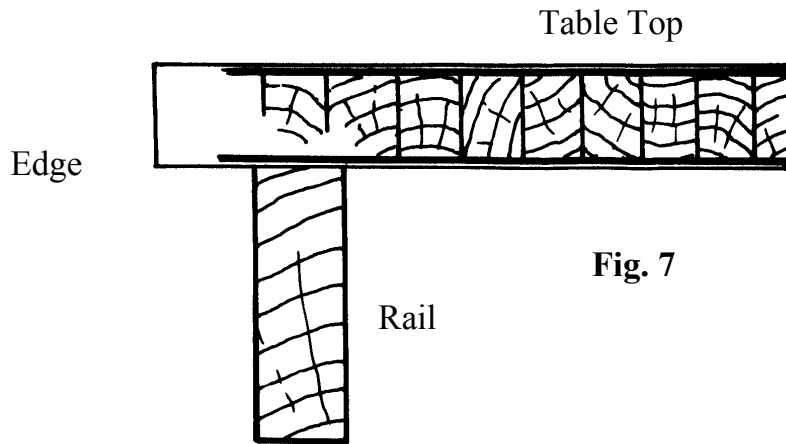
a.

b

26. Sketch a vertical cross section through the bottom rail and cill of a standard casement window to illustrate methods of overcoming the problems of surface tension and capillary attraction.

27. Fig. 7 illustrates a cross-section through a rail and table top. Sketch on the section a method of finishing the edge of the table top.

Mark



28. State why the correct storage of materials on site or in a joiners shop is important from a safety point of view.

29. Indicate by ticking under the appropriate headings which of the following are hardwoods or softwoods.

Species	Hardwood	Softwood
Redwood		
Sycamore		
Spruce		
Hemlock		
Ash		

30. State the purpose of ventilating the space between floor timbers and the oversite concrete in a suspended timber ground floor.

Mark

31. List **THREE** professions involved in the design and construction of a building and state **ONE** duty of each.

Profession	Duty
1.	
2.	
3.	

32. Using a compass, ruler and the given baseline at Fig. 8, construct either :- a square, or a right angled triangle, or an equilateral triangle.

33 omitted

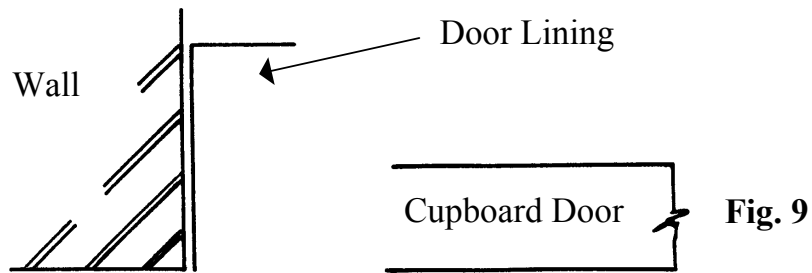
_____ **Fig. 8**

34. List **THREE** notices which are required by law to be displayed in a Joinery workshop.

1.
2.
3.

35. Fig. 9 shows an incomplete horizontal section through a built-in cupboard door and lining. Complete the detail to show the position of the door stop, skirting and architrave.

Mark



36. With the aid of single line diagrams illustrate the following types of roof :-

(a) Lean-to; (b) Collar; (c) Couple.

(a)

(b)

(c)

37. Describe the correct method of storing plywood sheeting on site prior to use.

38. Sketch a method of fixing an external door frame to a wall.

Note: The frame is built in as the work proceeds.

Mark

39. List **THREE** safety precautions to be observed when using an electrically powered portable drill.

1.
2.
3.

40. With the aid of a sectional sketch indicate the pre-boring required for a countersunk headed screw in hardwood.