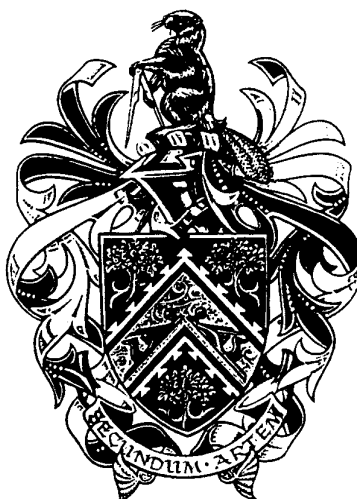


THE INSTITUTE OF CARPENTERS



Intermediate Examination

10th June 1997

Associated Vocational Technology Paper

TIME ALLOWED : 90 MINUTES

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

TO BE COMPLETED BY CANDIDATE
BLOCK LETTERS PLEASE

Name:
Date of Birth:
Occupation:

[illegible]

1. Name **TWO** hand tools for each of the following categories listed in the table below:-

Marks

Categories	Tool	Tool
Measuring		
Setting Out/Marking Out		
Impelling/Driving		
Sawing		
Drilling/Boring		

- 2.
- State which pin the B.S. colour code on a power tool require the brown wire to be connected to.
 - State in what circumstances does an electrically powered portable tool have no earth.
 - State the recommended voltage for electrically powered portable tools when used on site.
 - Name the appliance which is used to reduce the voltage in an electric power system.

a.

b.

c.

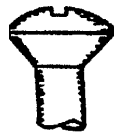
d.

3. Complete the table below to indicate a suitable situation for each of the preservative types listed and include a different method of application for each.

Preservative	Situation	Application
Tar Oils		
Organic Solvent		
Water Borne		

4. (a) Name the following types of screw head shown in Fig.1
(b) List FIVE items of information which are required when ordering screws.

Fig.1



A.



B.



C.

A.	B.	C.
1.		
2.		
3.		
4.		
5.		

5. Calculate
(a) The area of the floor shown in Fig.2
(b) The cost of laying the floor using T & G boarding priced at £8.65 per square metre adding 17.5% V.A.T.

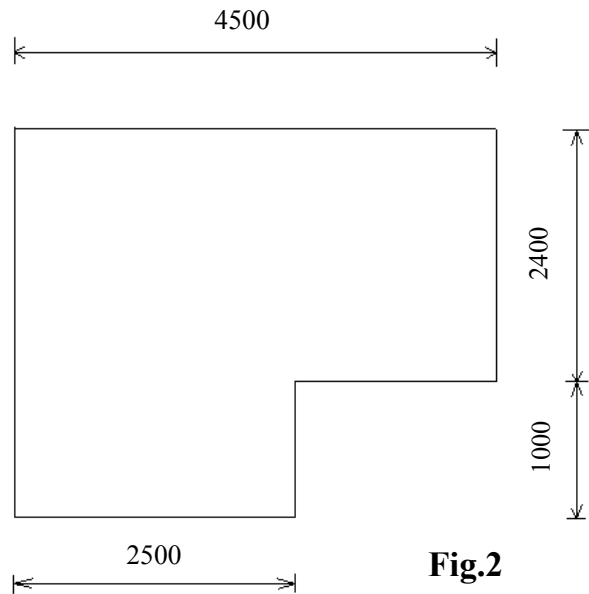


Fig.2

6. (a) Fig.3 represents the plan of the joist layout for a timber upper floor. Name the FIVE components indicated.
- (b) State WHY, when fixing herringbone strutting in place, a clearance gap is left at the top and bottom of the joist.

Marks

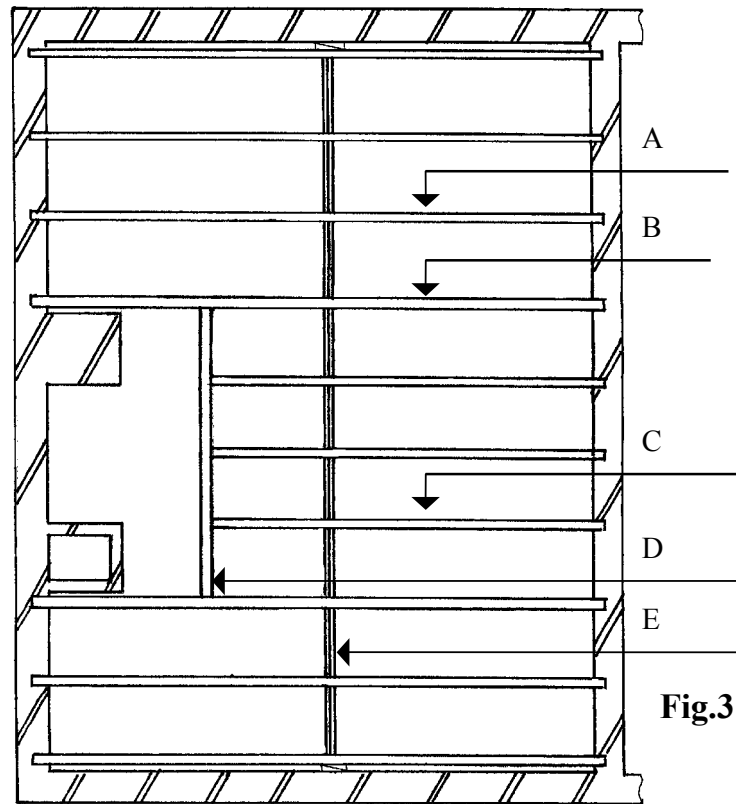


Fig.3

b.

7. Geometrically
- (a) Construct, on line A-B, a triangle with sides of 60, 50, and 30 millimetres in Fig.4
- (b) Bisect the given angle XYZ in Fig.5

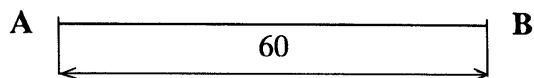


Fig.4

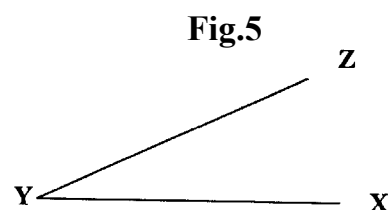
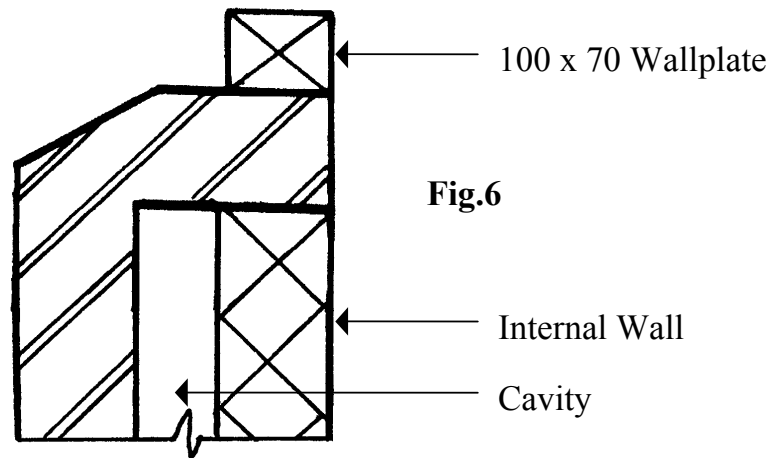


Fig.5

8. List THREE conditions which, when present in domestic premises, may promote an outbreak of Dry Rot.

1.	
2.	
3.	

9. Complete Fig.6 to show a vertical section through the flush eaves of a pitched roof to include 20 x 200 fascia board, 50 x 75 rafter pitched approximately at 30 degrees to the horizontal and a 50 x 75 ceiling joist.



10. Sketch, for each of the manufactured boards stated below, a section through the board to illustrate its construction.

(a) Blockboard

(b) Laminboard

(c) Plywood

11. Fig.7 shows the line diagram of a traditional casement window.
(a) State what the dotted lines indicate.
(b) List the ironmongery required for 6 No. Windows.

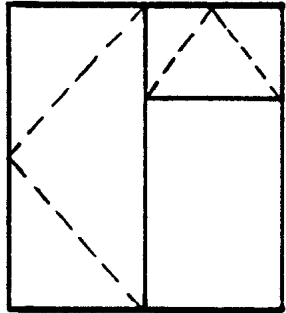


Fig.7

(a) _____

(b)

Item	Number Required

12. With the aid of sketches explain how a rebated door frame may be checked for squareness during assembly.

13. State a type of personal protective equipment which should be used in each of the following situations :-

Situation	Protective Equipment
Operating a woodworking machine	
Unloading timber from a delivery wagon	
Working on a site	
Using ballistic tools	

14. (a) Name the component used to cover the joint between the wall plaster and door lining.

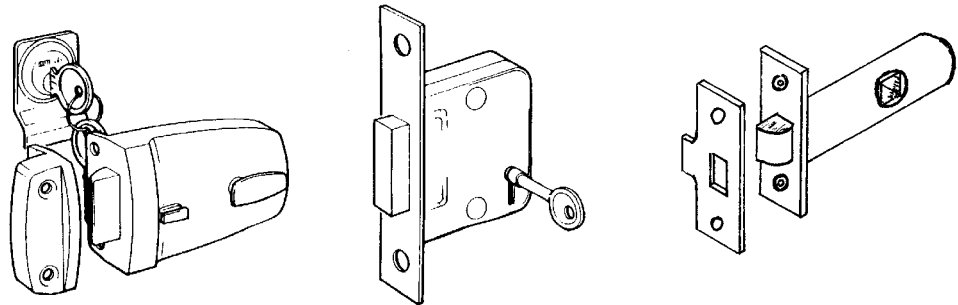
- (b) Name the type of joint used on a skirting board at;

(i) an internal angle/corner _____

(ii) an external angle/corner _____

- (c) Describe the function of a Plinth Block.

15. Name the items of ironmongery illustrated in Fig.8



(a)

(b) **Fig.8**

(c)

(a)

(b)

(c)

16. Complete the table below to indicate on which woodworking machine the items listed may be found and state the function of each item.

Item	Machine	Function
Bridge Guard		
Crown Guard		
Riving Knife		
Thrust Wheel		
Feed Roller		

17. (a) State TWO methods of seasoning timber.

i. _____ ii. _____

- (b) State the method most suitable to achieve a moisture content below 16%.

- (c) List THREE advantages of using seasoned timber.

i. _____

ii. _____

iii. _____

18. Indicate by completing the table below the type of nails/fixings to be used on the operations listed.

Operation	Type of Nail/Fixing
Chipboard Flooring to Timber Joists	
Common Rafters to Ridge-Board	
Mortice and Tenon Joints in a Casement Sash	
Architraves to a Door Lining	
Beads to a Glazed Softwood Door	

19. (a) State one type of adhesive recommended for fixing plastic laminates to blockboard worktops on site.

- (b) List FOUR safety precautions to be observed when using this type of adhesive.

i.

ii.

iii.

iv.

20. State a TYPE of joint which may be used for each of the situations listed in the following table :-

Situation	Joint to be used
Top Rail and Stile on a stuck Ovolo Moulded FOUR Panelled Door	
Bottom Ledge and Stile on a Framed Ledge Braced and Battened Door	
Head and Jamb on a Rebated Door Lining	
Stile and Top rail on a Stormproof Casement	

AFFILIATE MEMBERSHIP

Affiliate membership of the Institute of Carpenters is available to candidates achieving success in the Institutes Intermediate examination, also to Teachers/Lecturers/Instructors of Woodcrafts possessing a trade background.

Further information and application forms may be obtained from

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