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10th June 1997

[illegible]

SECTION A

Answer ALL questions in the spaces provided

Candidates are advised to spend **NOT more than ONE hour** on this Section

1. (a) Show by means of sketches the following methods used in the conversion of timber from the log :-

(i) Quarter sawn, (ii) Slab or through and through cutting.

(i)

(ii)

- (b) Indicate on your sketches by dotted lines what effect shrinkage would have on the sections.

2. (a) Complete the table below by naming **Four** portable powered hand tools used by a carpenter or joiner and state one example of use for each.

Tool	Use

- (b) List **Four** safety precautions to be observed in the use of electrically powered portable hand tools.

1.

2.

3.

4.

Marks

Marks

3. List in their correct order the sequence of operations for the assembly of a traditional six panelled door.

4. Calculate the purchase price of the following tool list :-

Item	Gross Price	Discount	Purchase Price
Cross cut saw	£30.00	20%	£ :
Smoothing plane	£35.00	20%	£ :
Set of chisels	£36.00	15%	£ :
Carpenters brace	£18.00	15%	£ :
Set of screwdrivers	£ 9.50	33.3%	£ :
		Total Price	£ :

5. Sketch TWO methods of stiffening/strutting an upper timber floor to reduce deflection.

6. To comply with the current Health and Safety at Work Act (Woodworking Machines), answer the following :-

Marks

The guard that is fitted over the blade of a circular saw is known as a :-	
Name the circumstances when push sticks must be used whilst operating circular saws.	
The temperature of the workshop where woodworking machines are used should not be less than :-	
The Maximum distance of the riving knife to the back of the saw blade is :-	
The distance from the end of the outfeed table to the back of the saw blade must not be less than :-	

7. Sketch horizontal sections through :-
 (a) the jamb and casement stile of a traditional window.
 (b) the jamb and casement stile of a stormproof window.

8. List in the table below the name of the members and bevels required to cut and fix a traditional hipped roof of equal pitch over a rectangular shaped building.

Name Of Member	Bevels		
	A	B	C

9. List the sequence of operations for fitting and fixing a standard letter plate on site to a middle rail of an external door.

10. Define, with the aid of sketches, **Three** of the following terms used in stair construction :-

i) Headroom, ii) Height of Handrail, iii) Pitch Board, iv) Pitch Line, v) Step Rise and Going, vi) Tread and Riser, vii) Apron Lining.

11. List **FIVE** priorities for a healthy working environment in either a joinery workshop or on a construction site.

1.

2.

3.

4.

5.

12. Name **THREE** of the items shown in Fig.1 stating where each may be used :-

Marks

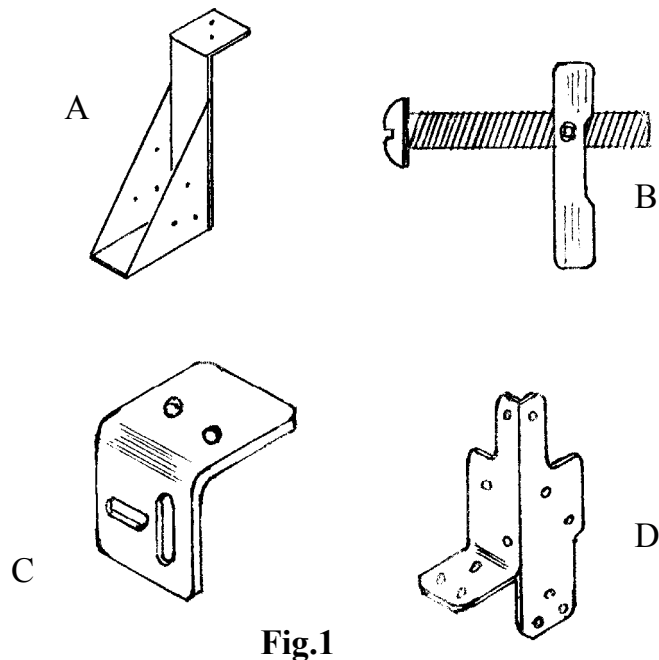


Fig.1

	NAME	USE
A.		
B.		
C.		
D.		

13. Describe with aid of sketches recommendations for the safe handling and storage on site of trussed rafters.

14. State a type of work for which **THREE** of the following adhesives are suitable and the precautions necessary during and after its application : -

Marks

Adhesive	Where Used	Precautions
PVA		
Casein		
Contact		
Synthetic		

15. The timber jambs of external door frames, particularly in older properties, often show signs of decay at the bottom.

(a) State the situation which causes this defect.

(b) Sketch how a repair can be effected.

16. Describe the purpose and function of **TWO** of the following Contract Documents :-

a) Bill of Quantities; b) Specifications; c) Schedules.

17. State **TWO** different methods of applying a timber preservative and compare by stating **TWO** advantages and **TWO** disadvantages of each method.

Application	Advantages	Disadvantages

18. (a) Describe a method of obtaining the moisture content of a piece of timber other than by using a moisture meter.

(b) Why are structural timbers often specified as not to exceed a moisture content of 20% during installation?
