



Junior Certificate Examination, 2003.

Materials Technology (Wood)

8440

Monday 16 June - Morning 9.30 - 11.30

**Section A - Ordinary Level.
40 marks.**

Examination number

INSTRUCTIONS

1. Answer any 16 questions from this section. All questions carry equal marks.
2. Answer questions in the spaces provided.
3. Write your examination number in the box provided and on all other pages used.
4. This booklet must be handed up at the end of the examination.

FOR EXAMINERS USE	
SECTION A - TOTAL	
1.	
2.	
3.	
4(a) or 4(b).	
5.	
Overall Total	

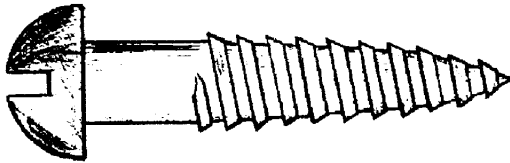
Centre number.

**THIS BOOKLET MUST BE
HANDED UP**

SECTION A - 40 MARKS

Answer any 16 questions from this section. All questions carry equal marks.

1. From the list given, select the correct name for the screw shown.



Raised head screw
Round head screw
Countersunk head screw

NAME

2. Name **one** of the tools labelled **A** and **B** in the diagram and give its use.

A NAME

USE

A

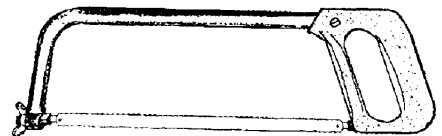


OR

B NAME

USE

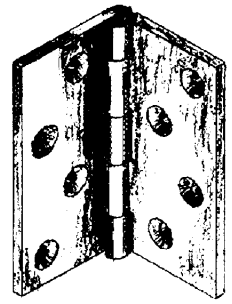
B



3. The diagram shows a piece of wood. Draw the **Face Side** and **Face Edge** marks in their proper place on this sketch.



4. What is the full name of the fitting shown in the diagram.
Give its correct use.



NAME

USE

5. State which trees in the list these leaves come from.

A



B

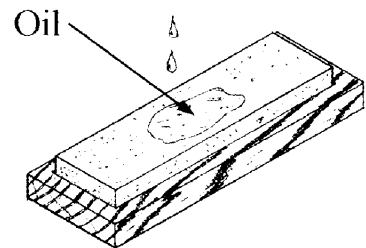


- SYCAMORE
- ASH
- LIME
- HORSECHESTNUT
- OAK
- HOLLY

NAME A

NAME B

6. Why is oil put on an oilstone when sharpening the blade of a plane or chisel?



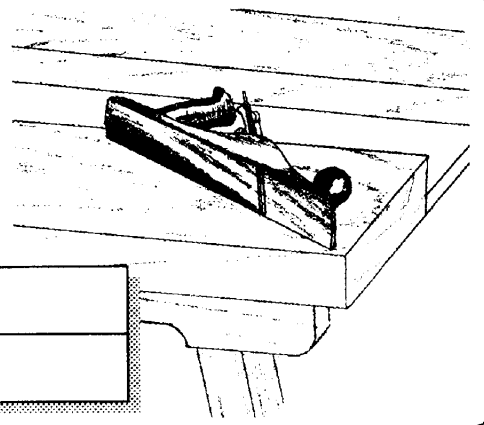
ANSWER

7. List two precautions that should be followed when using a chisel.

1.

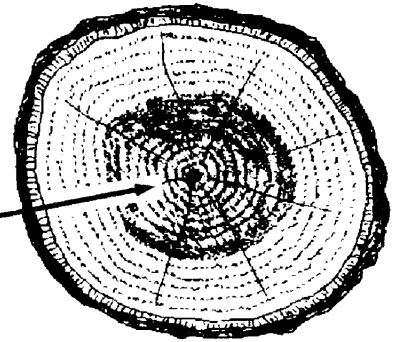
2.

8. Why should a plane be rested on its side on a bench when not in use?



ANSWER

9. Name the darker wood, shown at A, in the centre of the tree.

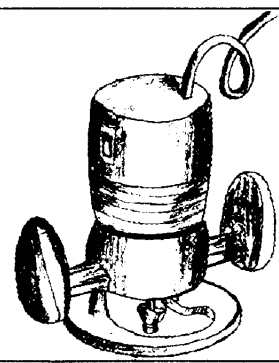


ANSWER

10. Trees can be divided into two main categories, deciduous and coniferous. Show by means of an 'X' into which group each of the following trees fit.

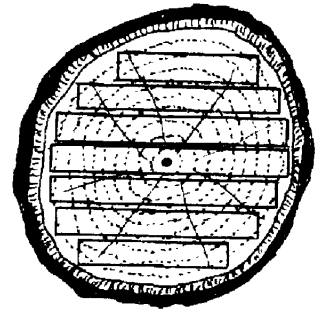
	Deciduous	Coniferous
Beech		
Pine		
Ash		
Douglas Fir		
Sycamore		

11. Name the power tool shown in the diagram.



ANSWER

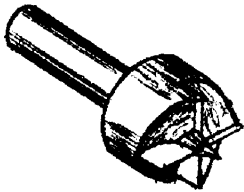
12. This log has been converted into boards.
What is this method of sawing called?



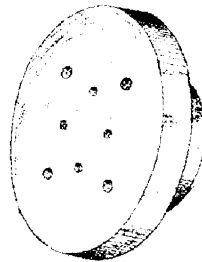
ANSWER

13. From the list given, name the lathe parts shown.

A



B

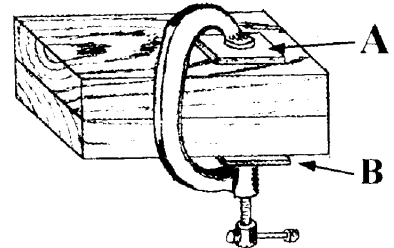


Toolrest
Faceplate
Tailstock
Spindle
Forked Centre

A

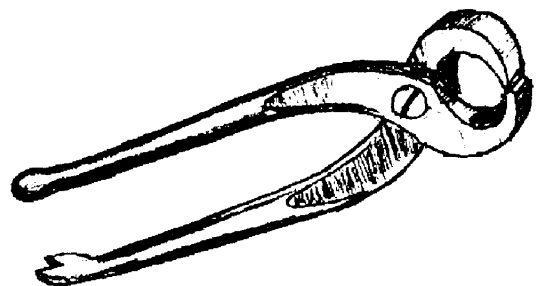
B

14. When using a G-cramp, pieces of waste wood are placed at A and B.
Why is this necessary?



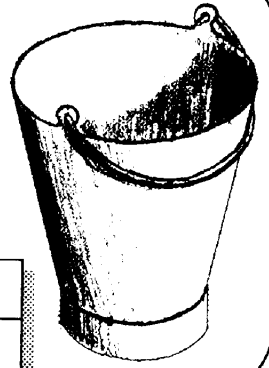
ANSWER

15. Name the tool shown in the diagram.



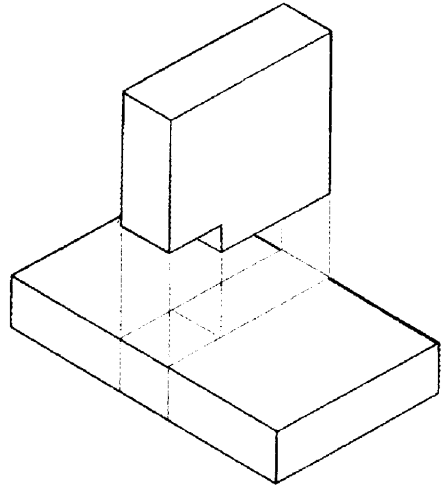
ANSWER

16. The diagram shows an iron bucket that has been galvanised. Explain what galvanising is.

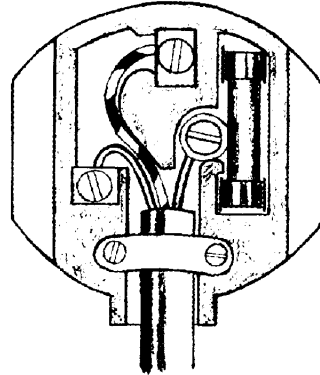


ANSWER

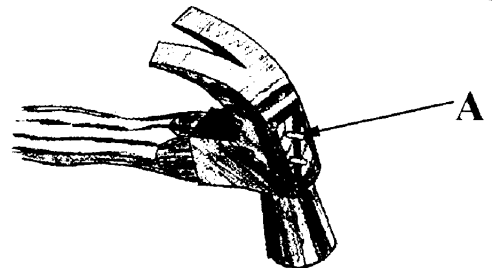
17. Complete the diagram of the **Stopped Housing Joint** shown.



18. Using an arrow, indicate the **neutral** terminal on the diagram.

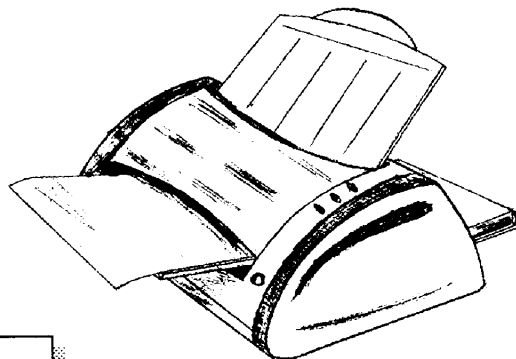


19. What is the function of the wedges, shown at **A**, in the handle of the claw hammer?



ANSWER

20. Is a printer an **input** or an **output** device?



ANSWER

This booklet must be handed up at the end of the examination.

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Junior Certificate Examination, 2003.

Materials Technology (Wood)

9660

Monday 16 June - Morning 9.30 - 11.30

Section B - Ordinary Level.

60 marks.

INSTRUCTIONS

1. Answer any **THREE** questions from this section. All questions carry equal marks.
2. Where sketches are required, they may be done freehand or on the graph paper provided.
3. Write your examination number on the answer book and on any other sheets used.

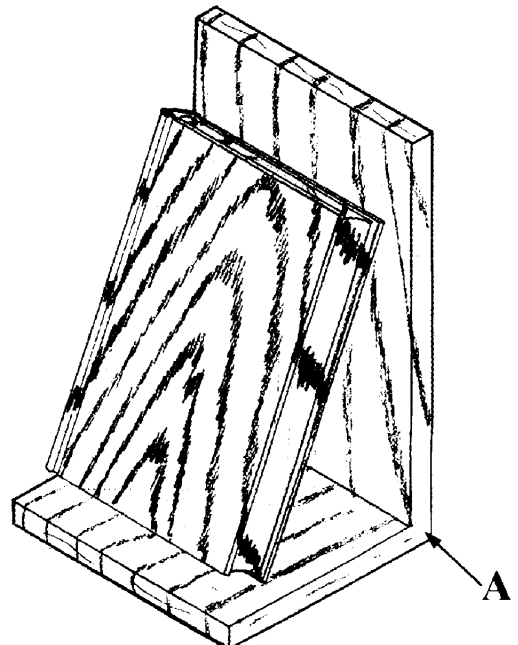
1. The diagram shows a book-end which is used to hold books upright on a shelf.

(i) The block of wood for the book is to be shaped to look like a hard backed book. Describe using notes and neat freehand sketches how you would shape the block of wood to form the back of the book, the pages and the cover.

(ii) Describe, using notes and neat freehand sketches, how the two pieces of wood could be joined at the corner **A**.

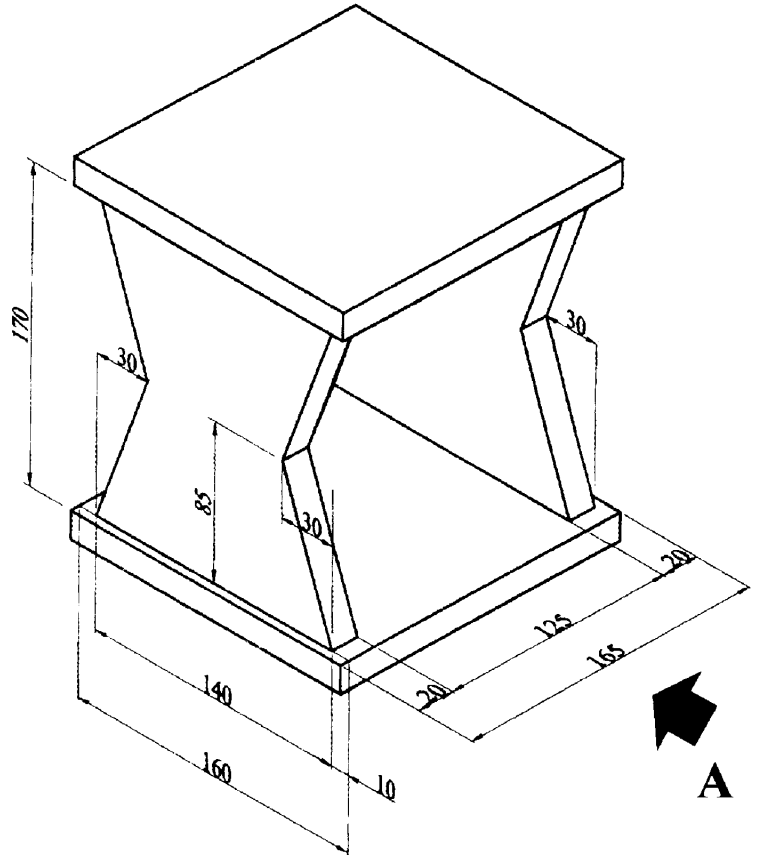
Name **three** tools used in this jointing process.

(iii) The project is to be varnished. Describe in detail the steps involved in sanding and varnishing this project.

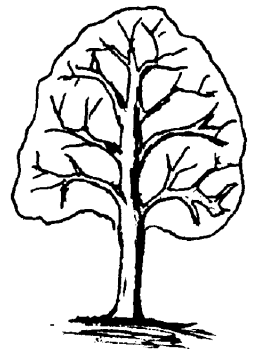


2. The diagram shows a pictorial drawing of a letter rack.
All material is **15mm** thick.

- (i) Draw, full size, a **Front Elevation** looking in the direction of arrow **A**.
- (ii) Project an **End Elevation** from this view.
- (iii) Include **four** main dimensions on the drawing, showing clearly dimension lines and arrowheads.



- 3. (i) Ash is a deciduous tree that grows in Ireland. Name **two** other types of deciduous tree which grow in this country.
- (ii) Describe, using notes and neat freehand sketches, **four** characteristics of deciduous trees.
- (iii) Norway Spruce is a coniferous tree that grows in Ireland. Name **two** other types of coniferous tree which grow in this country.
- (iv) Describe, using notes and neat freehand sketches, **four** characteristics of coniferous trees.

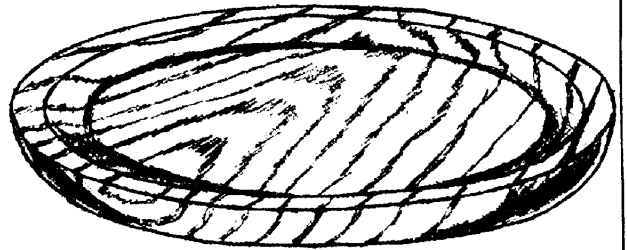


4. Answer either A or B

A.

The diagram shows a wooden tray which has been turned on a lathe.

- (i) The tray is to be made from a large square of wood of 40mm thickness. Describe using notes and sketches the steps involved in shaping the wood and mounting it on the faceplate before turning begins.
- (ii) Suggest a suitable finish for this project, giving reasons for your choice.
Explain, in detail, how this finish would be applied.
- (iii) List **two** safety rules that should be followed when sanding a piece of work on the lathe.

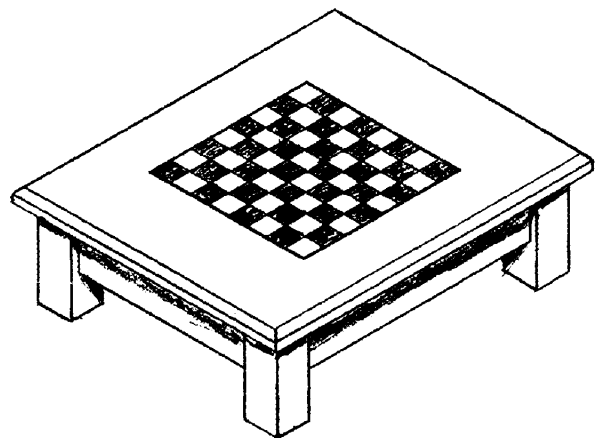


OR

B.

The diagram shows a low table with a veneered top which includes a chess/draughts board.

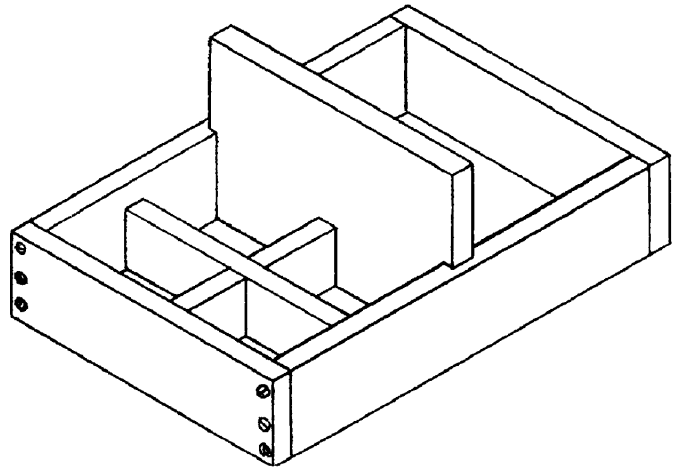
- (i) Using notes and neat freehand sketches describe how veneers are cut from logs.
- (ii) Recommend a suitable adhesive for veneering.
Give **two** reasons for your choice.
- (iii) Name a suitable material for
 - (a) the table top
 - (b) the dark squares on the chessboard
 - (c) the light squares on the chessboard.



5. The diagram shows a tray designed to hold tools, with a section for nails and screws.

(i) Show by means of notes and sketches how the central divider could be re-designed to form a handle.

(ii) Using notes and neat freehand sketches describe how you would cut out and shape this handle.



(iii) The project is to be made from M.D.F. Give **three** reasons why this is a good choice of material.