



Junior Certificate Examination 2005

Materials Technology Wood
Ordinary Level
Section A (40 Marks)

Monday 20 June
Afternoon, 2.00 to 4.00

Instructions

- (a) Answer any **sixteen** questions.
- (b) All questions carry equal marks.
- (c) Answer the questions in the spaces provided.
- (d) This booklet **must** be handed up at the end of the examination.
- (e) Write your examination number in the box provided and on all other pages used.

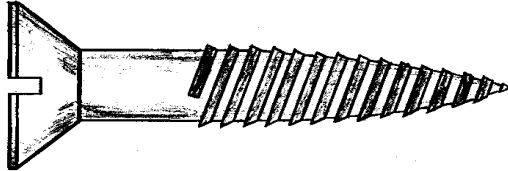
Examination Number:

Centre Number	
Section A	
1	
2	
3	
4(a) or (b)	
5	
Total	

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.



Round Head
Countersunk Head
Raised Head

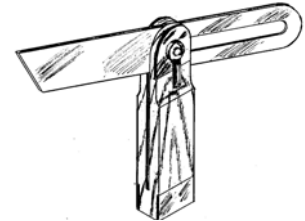
NAME

2. Name the tool labelled **A** in the diagram and give its use.

NAME

A

USE



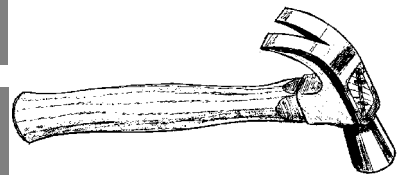
OR

Name the tool labelled **B** in the diagram and give its use.

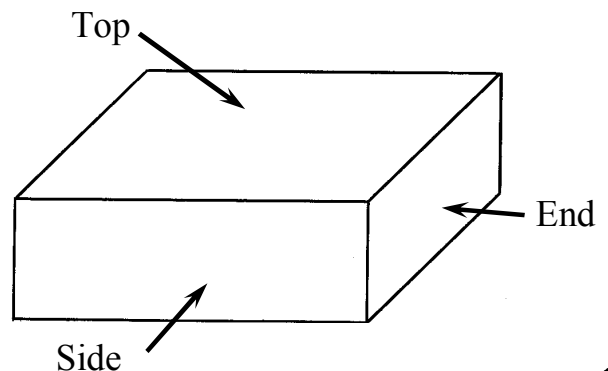
NAME

B

USE

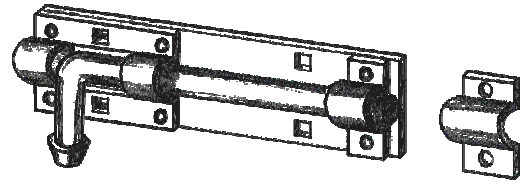


3. The diagram shows a block that is to be shaded to look like a piece of wood.
Draw in the grain on each surface.



4. Name the fitting shown in the diagram.
Where would this fitting be used?

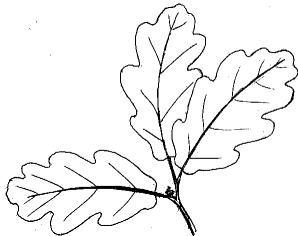
NAME



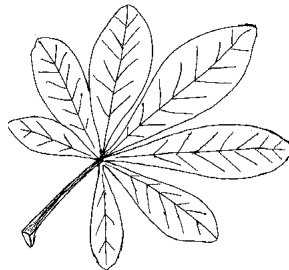
USE

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

A



B



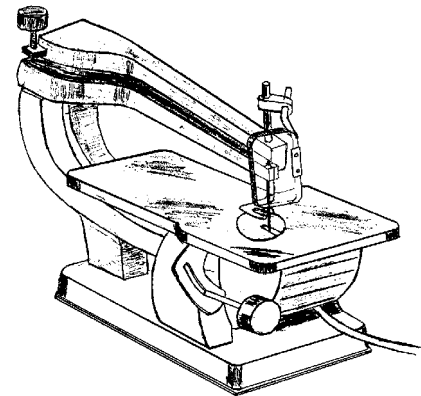
- LIME
- ASH
- BEECH
- HORSE CHESTNUT
- OAK
- BIRCH

NAME A

NAME B

6. Name the power tool shown
in the diagram.

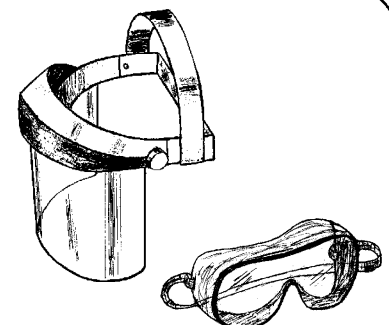
NAME



7. List **two** woodworking activities where protective
eye-wear should be worn.

1.

2.

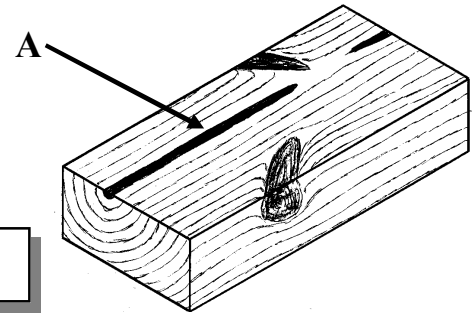


8. Give **one** reason why it is better to use a long plane rather than a short plane to straighten a long plank of wood?



ANSWER

9. The wood shown in the diagram is cut from the centre of a tree.
What is the name of the soft spongy material shown at A?

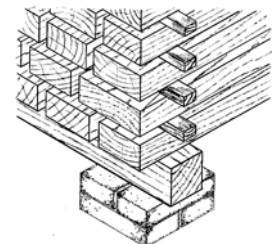


ANSWER

10. Timber can be divided into two categories, hardwoods and softwoods. Show by means of an 'X' into which group each of the following timbers fit.

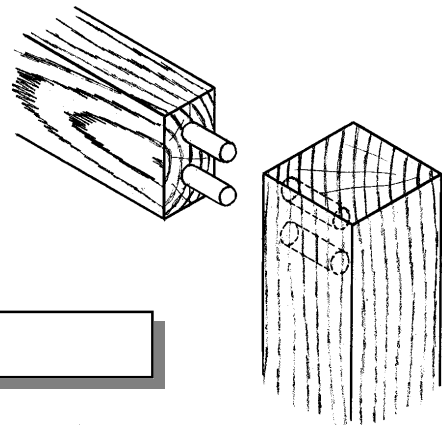
	Hardwood	Softwood
Norway Spruce		
Ash		
Douglas Fir		
Horse Chestnut		
Scots Pine		

11. When air seasoning, the planks being seasoned are raised up on bricks or blocks.
Why is this important?



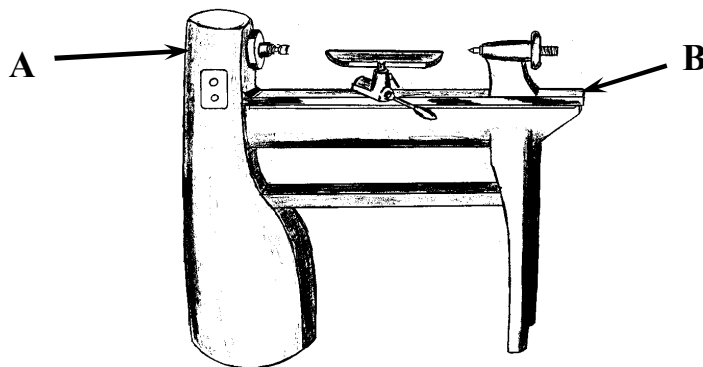
ANSWER

12. Name the joint shown in the diagram.



NAME

13. From the list given, name the lathe parts shown at A and B.

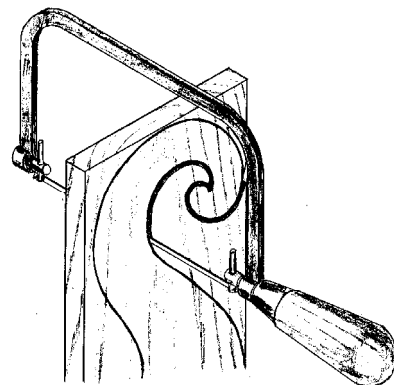


- TAILSTOCK
- TOOLREST
- BED
- HEADSTOCK
- FACEPLATE

A

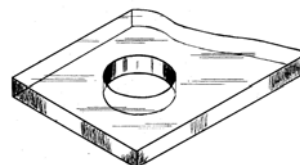
B

14. Name the saw shown in the diagram.



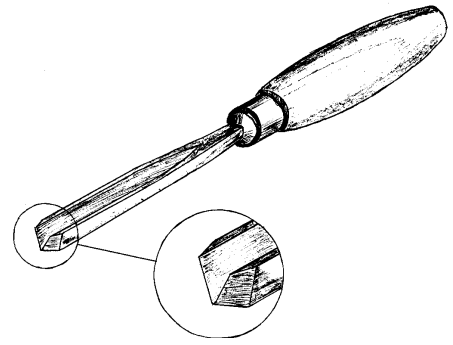
NAME

15. Give **one** method of preventing a sheet of perspex (acrylic) from cracking when drilling a hole through it.



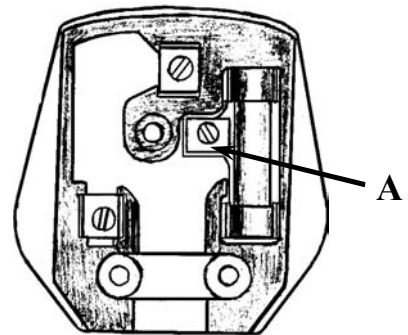
ANSWER

16. Name the carving tool shown in the diagram.



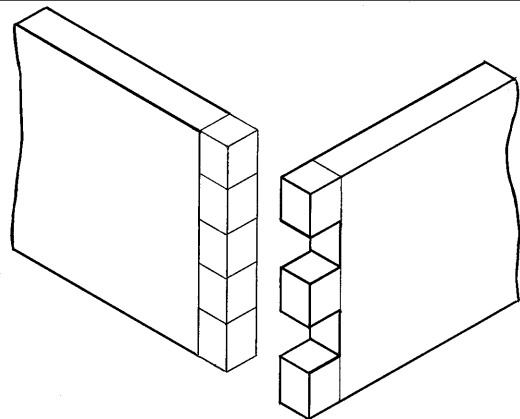
NAME

17. What colour is the wire that goes to the fused terminal of a plug, indicated at A, in the diagram.



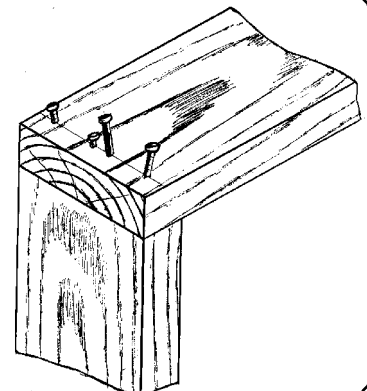
ANSWER

18. Complete the sketch of the finger joint shown.



19. To make a stronger joint, nails are often hammered in at a slight angle, as shown in the sketch.

What is the correct name for this type of nailing?



ANSWER

20. When using a computer, pictures are called graphics. What are letters, words and numbers called?



ANSWER

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

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Junior Certificate Examination 2005

Materials Technology Wood

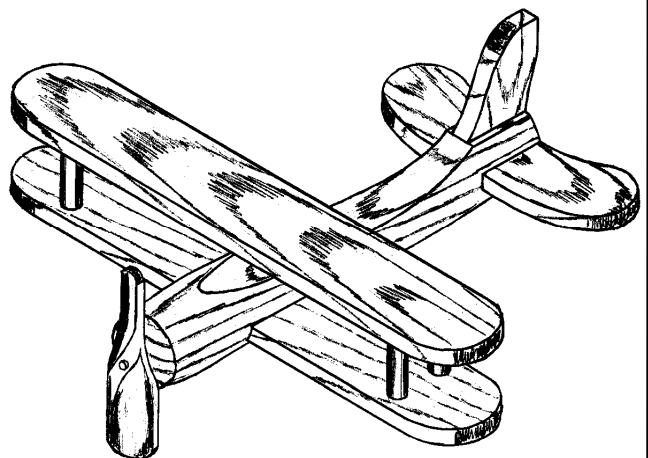
Ordinary Level

Section B (60 Marks)

Instructions

- (a) Answer any **three** questions. All questions carry equal marks.
- (b) Where sketches are required they may be done freehand or on the graph paper provided.
- (c) Write your examination number on the answer book and on all other pages used.

1. The diagram shows a toy plane. The lower wing at the front and the smaller wing at the back pass through the plane body.
 - (i) Describe, using notes and sketches, how the hole should be made in the plane body to allow the large wing to pass through it.
 - (ii) Describe, using notes and neat freehand sketches, how the large wings could be cut out and shaped.
Name **three** tools used in this process.
 - (iii) Suggest a suitable applied finish for the project after it has been sanded properly.
Give **two** reasons for your choice.

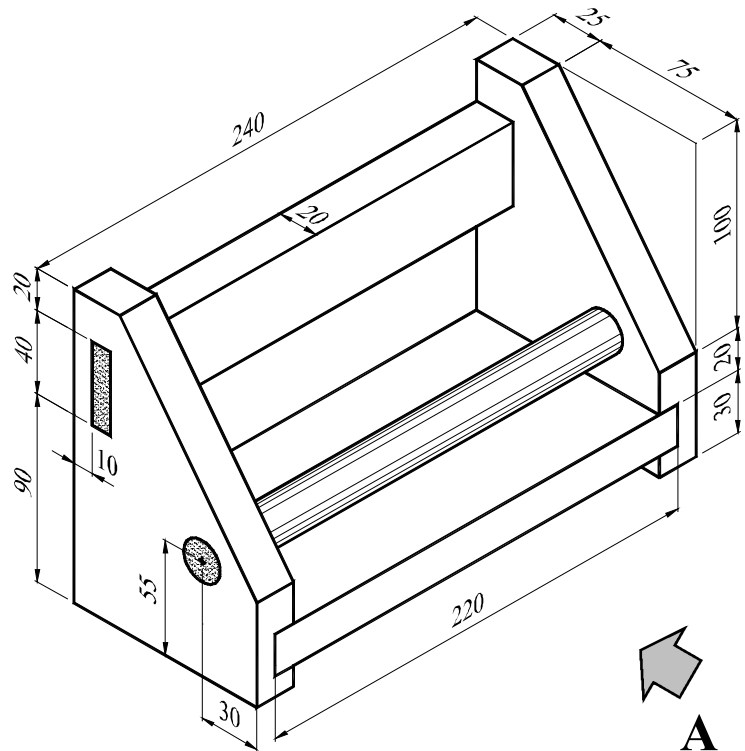


2. The diagram shows a pictorial drawing of a spice rack. All material is **20mm** thick. Dowel **20mm** diameter.

(i) Draw, full size, a **Front Elevation** looking in the direction of arrow **A**.

(ii) Project an **End Elevation** from this view. Show the centre for the hole.

(iii) Include **four** main dimensions on the drawing, showing clearly dimension lines and arrowheads.

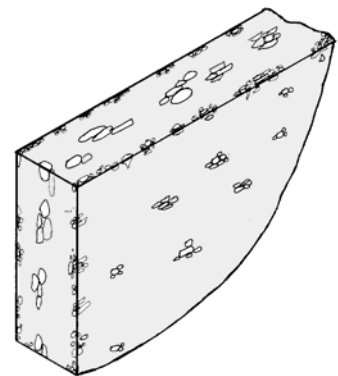


3. The diagram shows a piece of chipboard.

(i) Name **two** other types of manufactured boards. In the case of any **one** of these, describe using notes and sketches how the board is made.

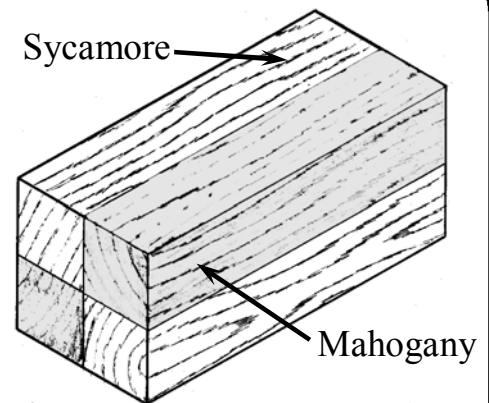
(ii) Cut edges of chipboard look unattractive. Describe, using notes and sketches, a method commonly used to cover these edges.

(iii) List **three** advantages that manufactured boards have over solid wood.



4. Answer either A or B

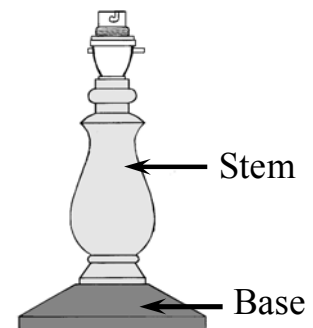
4A. The diagram shows four pieces of wood glued together. The wood will be used to make the stem of a lamp.



(i) Describe, using notes and diagrams, **three** steps that should be taken to further prepare this block of wood for mounting on the lathe.

(ii) Name any **two** turning tools. Make a neat diagram of each and describe what each tool is used for.

(iii) The base and stem of the lamp shown are to be made separately. Using a sketch, suggest a method of jointing these together.



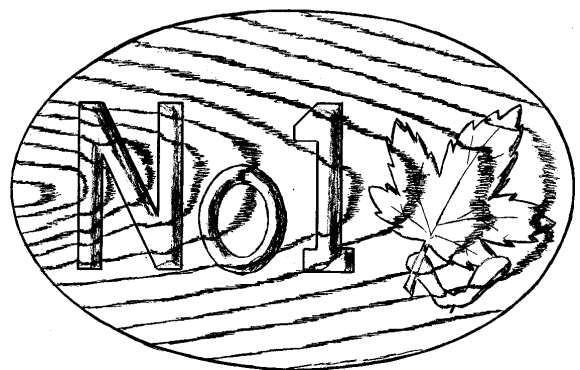
OR

4B. The diagram shows a house number plaque for No. 1 Sycamore Drive.

(i) Describe, using notes and sketches, how the house number and leaf design could be transferred from paper onto the wood.

(ii) Suggest a suitable tool to carve this design. Make a neat diagram of this tool.

(iii) The completed project is to be coated with three coats of varnish. Describe the steps involved in applying this finish.



5. The diagram shows a storage box for books and toys to be used in a child's bedroom.

(i) Describe, using notes and sketches, how the design of the box and lid could be changed to make it look like a treasure chest.

(ii) Using notes and sketches show how hand grips could be cut / shaped into the sides of the box.

(iii) Using notes and sketches describe **two** ways in which the box could be decorated to improve its appearance.

