



Junior Certificate Examination 2007

Materials Technology Wood
Ordinary Level
Section A (40 Marks)

Monday 18 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

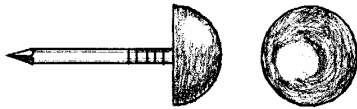
Answer any 16 questions from this section. All questions carry equal marks.

1. From the list given, identify the nails shown.

A



B



Corrugated fastener

Staple

Panel pin

Clout head nail

Upholstery nail

Round wire nail

NAME A

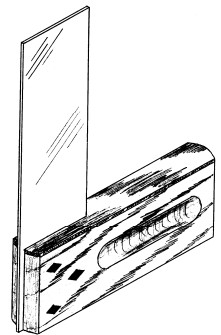
NAME B

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

NAME

USE

A



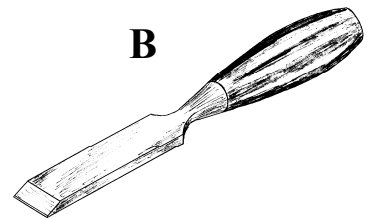
OR

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

NAME

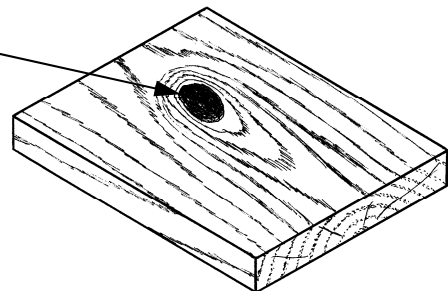
USE

B



3. Name the grain feature shown at A?

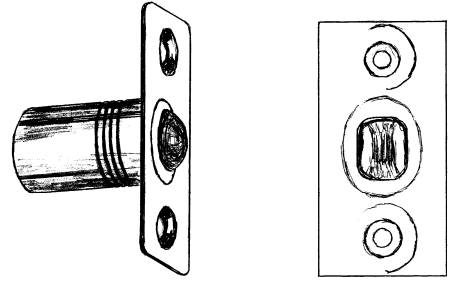
A



NAME

4. Name the fitting shown and give its correct use.

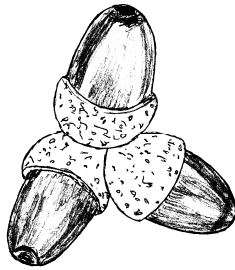
NAME



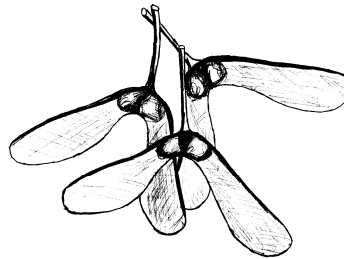
USE

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

A



B

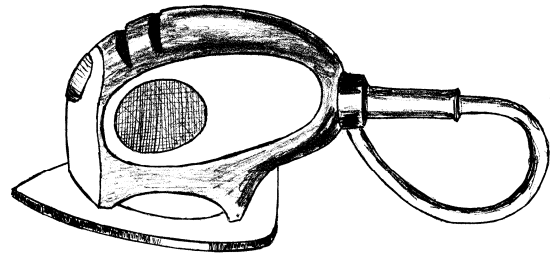


- BIRCH
- PINE
- OAK
- HOLLY
- SYCAMORE
- ASH

NAME A

NAME B

6. Name the power tool shown in the diagram.



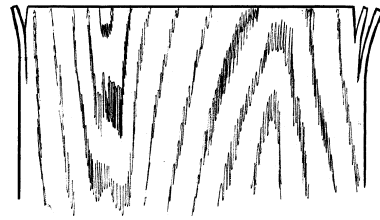
NAME

7. List **two** safety precautions that should be observed when using portable electric power tools.

1.

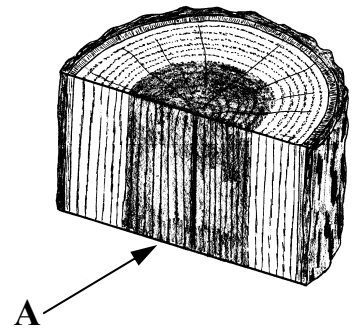
2.

8. How can the end grain of a wide board be planed, without the edges being chipped off, as shown in the sketch?



ANSWER

9. The diagram shows a section of the trunk of a tree.
What is the name of the darker coloured wood shown at A?



NAME

10. Show by (means of a ✓ tick) which type of seasoning is most suitable for timber used in the following locations:

	Air seasoning	Kiln seasoning
Fencing posts		
Floorboards		
Shelving		
Dog Kennel		
Kitchen table		

11. The blade of a coping saw is held in place with which of the following forces?

- (a) Compression
- (b) Tension
- (c) Torque



ANSWER

12. Why are the ends of planks painted before seasoning?

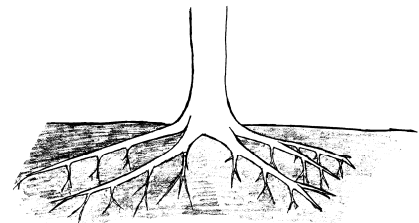


ANSWER

13. When turning a large bowl of wood on the lathe, should the lathe speed be set at **fast** or **slow**?

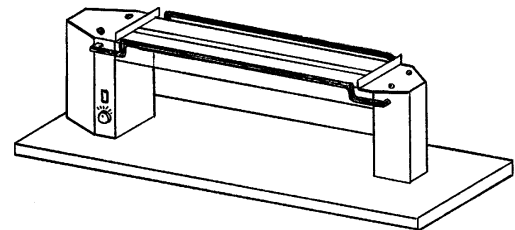
ANSWER

14. Name one function of the roots of a tree.



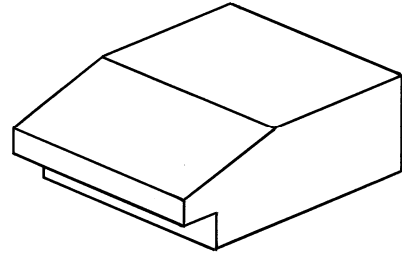
ANSWER

15. The diagram shows an electric strip heater.
What is this heater used for?



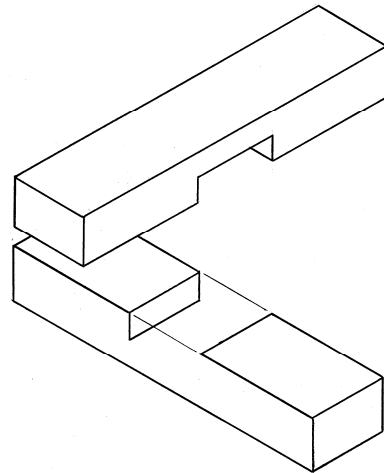
ANSWER

16. The diagram shows a thumb gauge.
What is a thumb gauge used for?

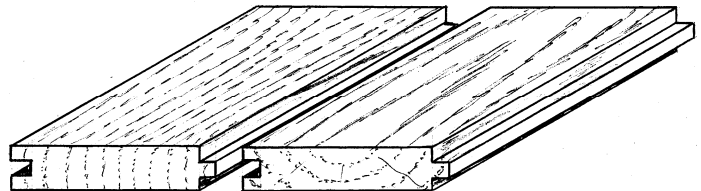


ANSWER

17. Complete the diagram of the cross-halving joint shown.

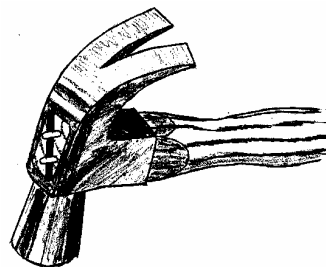


18. Floorboards are often joined using the joint shown.
Name the joint.



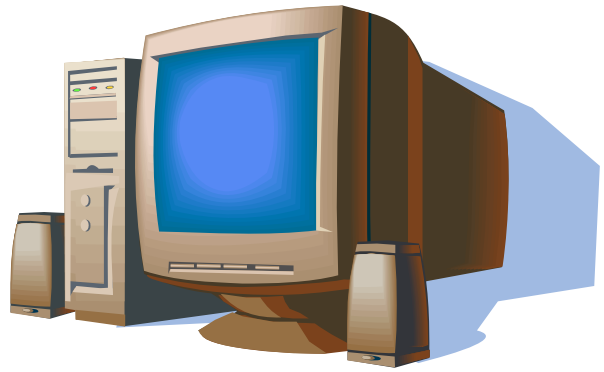
NAME

19 What is the claw of the hammer shown used for?



ANSWER

20. Give one use for a computer in a Materials Technology Wood workshop?



ANSWER

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

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Junior Certificate Examination 2007

Materials Technology Wood

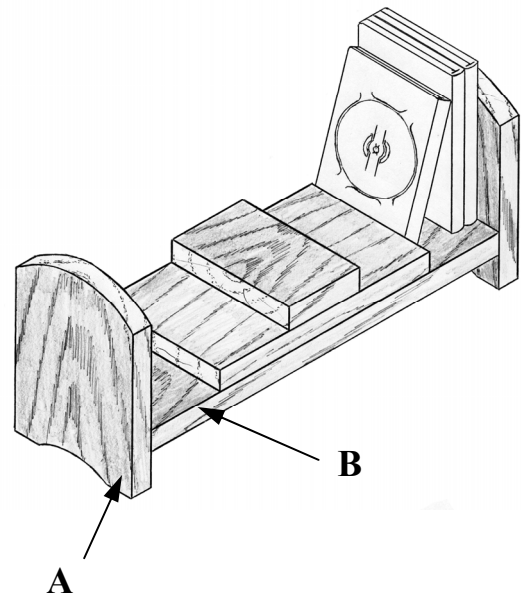
Ordinary Level

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 stand for DVDs. The stand is made from solid pine.
- (i) Describe, using notes and sketches, a suitable method of jointing the end **A** to the base **B**.
 - (ii) The top of piece **A** is curved, as shown. Using notes and sketches describe how this curve could be cut out and shaped to a smooth finish.
 - (iii) List **two** tools used to shape piece **A**. Make a neat diagram of **one** of these tools.

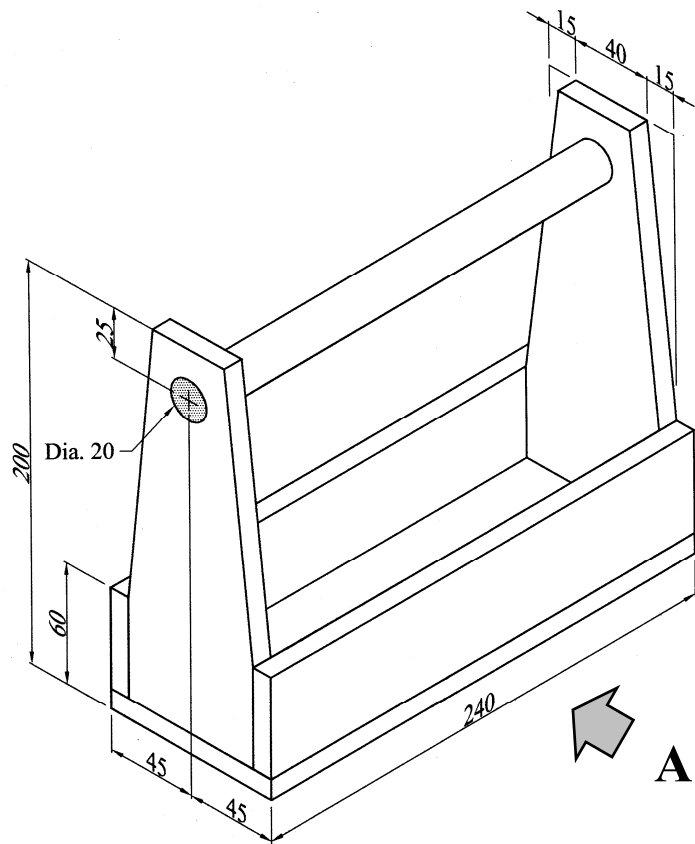


2. The diagram shows a pictorial drawing of a toolbox, for storing small household tools. All material is **10mm** thick.

(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. The diagram shows an image of the common furniture beetle (woodworm).

(i) Describe using notes and sketches the life cycle of the common furniture beetle under the following headings:

- (a) Eggs
- (b) Larva
- (c) Pupa
- (d) Adult beetle.

(ii) Explain how to treat a piece of furniture that has been attacked by woodworm.



(3mm)

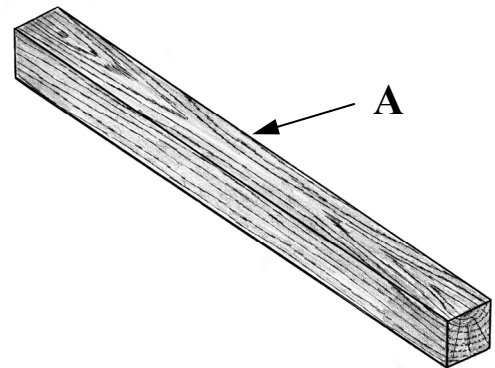
4. Answer either A or B

4A. The diagram shows a baseball bat which has been turned on a lathe. The bat is to be made from the piece of wood shown at A.



(i) Describe using notes and sketches **three** steps that should be taken to prepare the wood for mounting on the lathe.

(ii) Name one turning tool that would be used to turn this piece. Make a neat diagram of this tool.



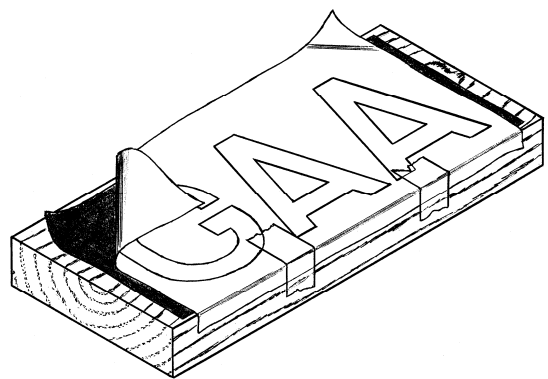
(iii) List **two** safety rules that should be observed when using the lathe.

OR

4B. The diagram shows one method of transferring lettering from paper on to a piece of wood.

(i) Explain this method, as shown in the diagram.

(ii) Draw a neat freehand sketch of a suitable carving tool to carve these letters. Name this tool.



(iii) The finished plaque is to be fixed to a door using two countersunk head screws.

Using notes and sketches explain how you would prepare the wood to receive the screws.

5. The diagram shows an exercise stand for a kitten.

- (i) Suggest a suitable material for:
- (a) The platforms
 - (b) The central post.
- In each case give **one** reason for your choice of material.

- (ii) Using notes and neat sketches suggest **two** design changes that would improve the appearance of this exercise stand.

- (iii) Suggest a suitable applied finish for the stand and give **two** reasons for your choice of finish.

