



Junior Certificate Examination, 2011

Materials Technology (Wood)
Ordinary Level
Section B (60 marks)

Monday, 20 June
Afternoon, 2.00 - 4.00

Instructions

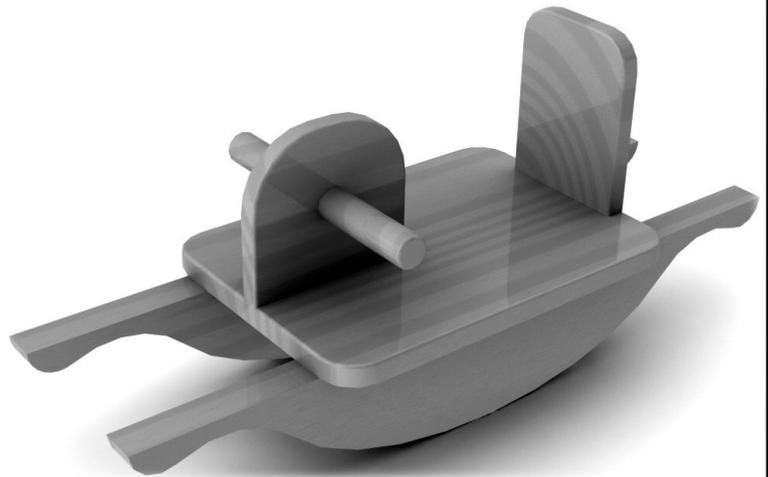
- (a) Answer any **three** questions. All questions carry equal marks.*
- (b) You may answer either question 5A **or** question 5B but **not both** of them.*
- (c) Write your examination number on the answer book and on all other pages used.*
- (d) Where sketches are required they may be done freehand or on the graph paper provided.*
- (e) **Question 2** from this section must be answered on drawing paper. All other written answers should be given on the answer book supplied.*

1. The diagram shows a type of rocking horse which is made from pine.

(i) Describe, using notes and *neat freehand sketches*, how the curved base pieces are marked out so that they will be the same as each other.

(ii) Describe, using notes and *neat freehand sketches*, how one of the curved base pieces is cut out and shaped as shown.

(iii) Name and sketch **one** tool used in cutting out the curves in this project.

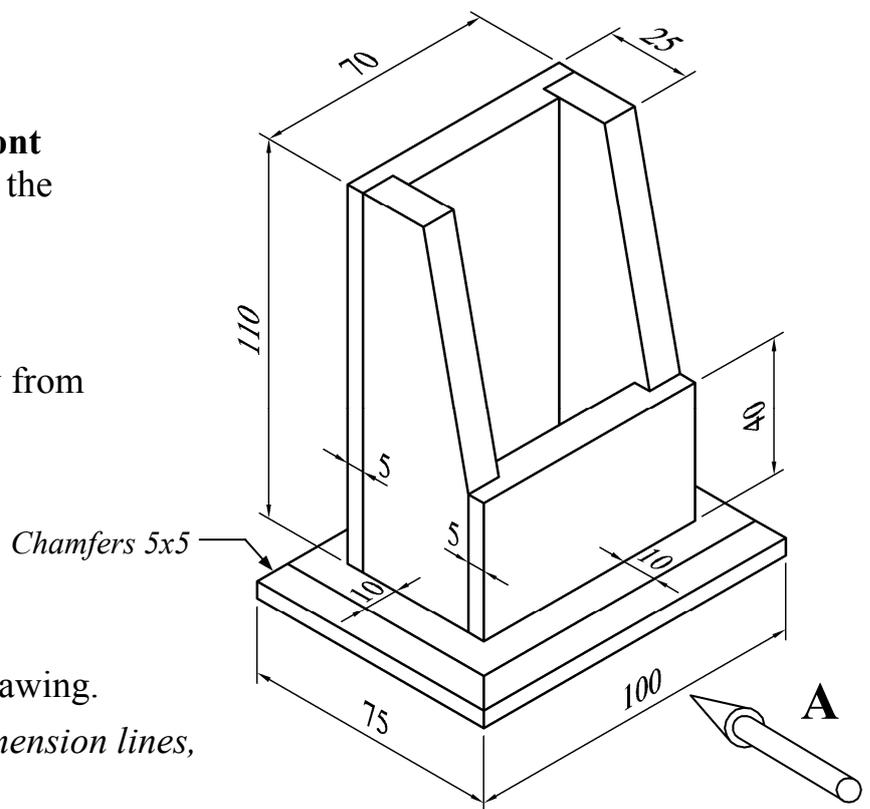


2. The diagram shows a pictorial drawing of a mobile phone holder. All material is **10mm** thick.

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

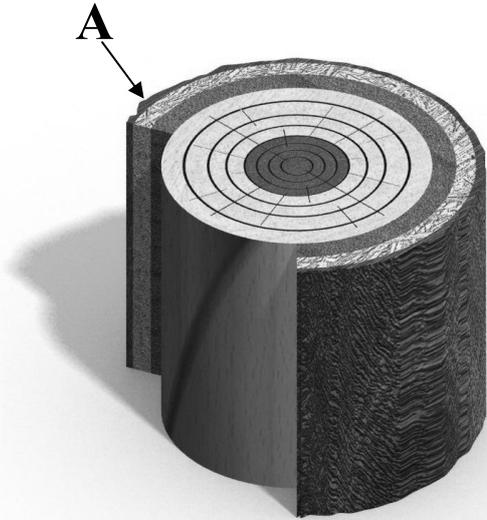
(ii) Project an **End View** from the elevation.

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



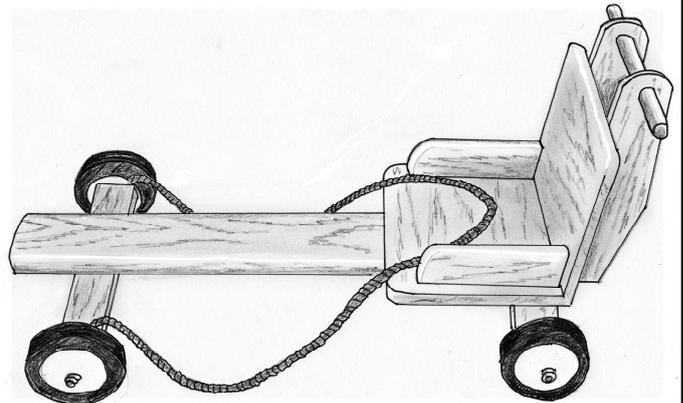
3. The diagram shows a cross section of a tree.

- (i) Name the part of the tree, labelled **A** in the diagram, and describe **two** of its functions.
- (ii) Draw a diagram showing a cross section of a tree and label any **three** other parts.
- (iii) Describe, with the aid of notes and *neat freehand sketches*, how trees produce food.



4. The diagram shows a go-cart made from pine.

- (i) Give **two** reasons why pine is a good choice of material for this project.
- (ii) The overall appearance of the go-cart is plain.
Using notes and *neat freehand sketches*, describe **two** design changes you would make to improve the appearance of the go-cart.
- (iii) Suggest a suitable applied finish for the go-cart and give **two** reasons for your choice.



5. Answer 5A or 5B

5A. The diagram shows a set of salt and pepper containers that have been turned on a lathe.

(i) Describe, using notes and *neat freehand sketches*, the steps involved in preparing and shaping one of the blocks of wood for mounting on a lathe before turning begins.

(ii) The bodies of the containers have cylindrical holes in them in order to hold the salt and pepper.

Describe, using notes and *neat freehand sketches*, how to make this hole through the center of one of the containers.



(iii) List **three** specific safety precautions that should be followed when using a lathe.

OR

5B. The diagram shows a sign made by applying two different colour wooden veneers to an MDF baseboard.

(i) Using notes and *neat freehand sketches*, explain how these veneers would be marked out and applied to make this sign.

(ii) Describe, using notes and *neat freehand sketches*, how veneers are cut from logs.

(iii) Veneers are commonly used in the manufacture of furniture. Give **two** reasons why veneers are often used instead of solid wood.

