

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD



Technical and Vocational Education Examination

JOINERY 2
5500

JUNE XXXX

INTERMEDIATE LEVEL

Subject Title	JOINERY
Subject Code No.	5500
Paper No.	TWO

THREE HOURS

INSTRUCTION TO CANDIDATES

- This paper has seven questions in three SECTIONS. You are expected to answer five questions selected as follows:
- TWO questions from SECTION A.
- TWO questions from SECTION B.
- SECTION C has one compulsory question.
- All questions carry equal marks.
- Read the questions carefully before answering.
- Use sketches and diagrams where necessary.
- Written answers should be brief and straight to the point.
- You are allowed to use drawing instruments and a calculator.
- This paper shall be evaluated on **70 marks** and weighted as **35%** of the total subject marks

You are reminded of the necessity for good English and orderly presentation in your answers.

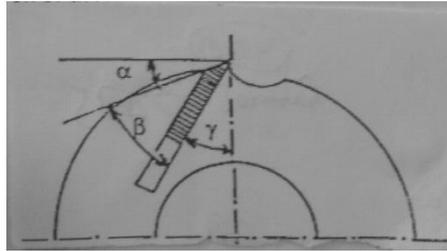
Turn Over

SECTION A

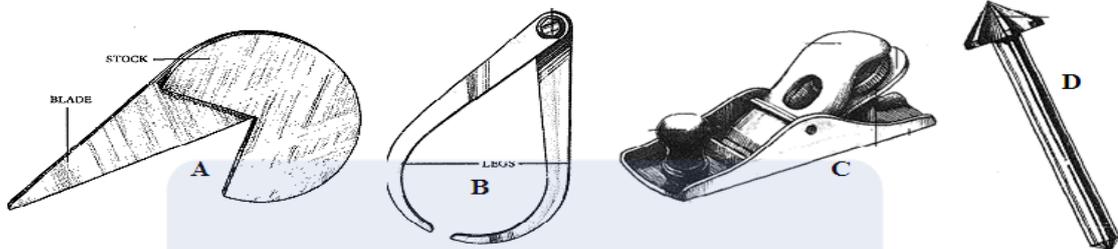
1. In order to ensure the resistance of joints in wood joinery work, assembling aids (nails and screws) are required.
- a) Differentiate between screws and nails. **(3marks)**
 - b) Draw a butt hinge and name the following parts: Pin Knuckle, Leave, Screw and hole **(5marks)**
 - c) Give two factors that influence the choice of each of the following ironmongery. **(6marks)**
 - i. Screws
 - ii. Nails
 - iii. Hinges
 - iv. Locks
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2. A commercial dimension of timber is an important factor that determines a conversion method of most logs.
- a) Outline four other factors that influence the choice of a conversion method of a log apart from commercial dimensions of timber. **(4marks)**
 - b) Draw a converted piece of timber and label the three main axis of the growth. **(4marks)**
 - c) Some defects in timber can be avoided during conversion.
 - i) Name any three of the defects.
 - ii) Explain how each of these defects can be avoided during conversion. **(6marks)**
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3. Wood characteristics are important because they enable the Joiner to decide on the suitability of wood for a particular joinery work.
- a) Make a sketch through the cross-section of the tree trunk and identify seven parts. **(4marks)**
 - b) Cite two wood properties that will determine the choice of timber for decorative purposes. **(2marks)**
 - c) List four elements that reduce the strength or stability of timber. **(2marks)**
 - d) Briefly explain the functions of the three main parts of a tree. **(6marks)**
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SECTION B

4. a) Identify the cutting tool below and state the function of each of the angles indicated. (4marks)

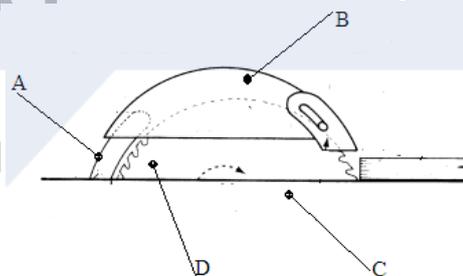


- b) Make a free hand sketch to show the grinding and honing angles of plane cutter. (4marks)
 c) Identify the following hand tools and give their functions. (4marks)



- d) Name two factors that guide in the selection of hand tools. (2marks)

5. Effective work is done only when tools are well maintained. (2marks)
- a) Define maintenance. (2marks)
- b) Differentiate with sketches the hook angle of a circular ripsaw tooth and a circular cross-cut saw tooth. (4marks)
- c) List seven operations that can be carried out on a radial arm saw. (4marks)
- d) Identify the parts of a circular table saw below and give the function of each. (4marks)



- 6) Door shutters, door frames and linings are an integral part of a domestic building and must provide a method of easy access for any part of the dwelling without restrictions. (4marks)
- a) Name four categories of doors, stating an example of each. (4marks)
- b) Make sketches to show the following stile/panel sections. (6marks)
- Flush panels
 - Raised and fielded panel
 - Raised sunk and fielded panel
 - Flat panel
- c) Use sketches to show the difference between a door frame and a door lining. (4marks)

SECTION C

7. The drawing below shows a **side stool**, designed for a sitting room of a rest house.
This stool is a sample of 100 that will be produced in your workshop.

Technical information:

- Cross-section of rails (aprons) 25 x 800mm
- Cross-section of legs 60 x 60mm
- Cross-section of ledgers 20x30
- Plywood top 15mm thick

- a) Produce a complete cutting list for the table. **(4marks)**
- b) From the cutting list, calculate the volume of wood to be used. **(4marks)**
- d) Make a chronological sequence of operation to be followed for the realization of the stool. **(6marks)**

