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SET 2

GRADE 10 END OF YEAR EXAMS

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

GRADE 10 – WOOD TECHNOLOGY

Time: 2 Hours

LEARNER'S DETAILS

Name: _____. **School:** _____.

Assessment Number: _____. **Date:** _____.

School Code: _____. **Signature:** _____.

INSTRUCTIONS TO CANDIDATES

1. Write your name in the spaces provided above.
2. Write the name of your school and your stream in the spaces provided.
3. Write your admission number and the date of the assessment in the spaces provided.
4. This paper consists of two sections: A and B.
5. Answer all questions in section A and section B.
6. Answer the questions in English.
7. All answers MUST be written in the spaces provided in the paper.
8. Do NOT remove any page from this question paper.

FOR OFFICIAL USE ONLY

SECTION	SECTION A	SECTION B	% SCORE	EE1	EE2	ME1	ME2	AE1	AE2	BE1	BE2
SCORE RANGE	30 MARKS	50 MARKS		90-100	75-89	58-74	41-57	31-40	21-30	11-20	1-10
POINTS				8 POINTS	7 POINTS	6 POINTS	5 POINTS	4 POINTS	3 POINTS	2 POINTS	1 POINT
LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. Three learners at **Sosio Senior School** are discussing their future careers in the wood industry:

   Abdi: "I want to design high-end furniture and office layouts."

   Bakari: "I am interested in managing large forests and timber harvesting."

   Chantal: "I want to work in a factory making plywood and particle boards."

(a) **Identify** the careers Abdi and Bakari are describing. (2 marks)

Abdi: _____ Bakari: _____

(b) **State** two ways Wood Technology contributes to the economy of Kenya. (2 marks)

i. _____

ii. _____

2. Study the diagram of the workshop layout below.



X



Y

(a) **Name** the features labeled **X** and **Y**. (2 marks)

X: _____.

Y: _____.

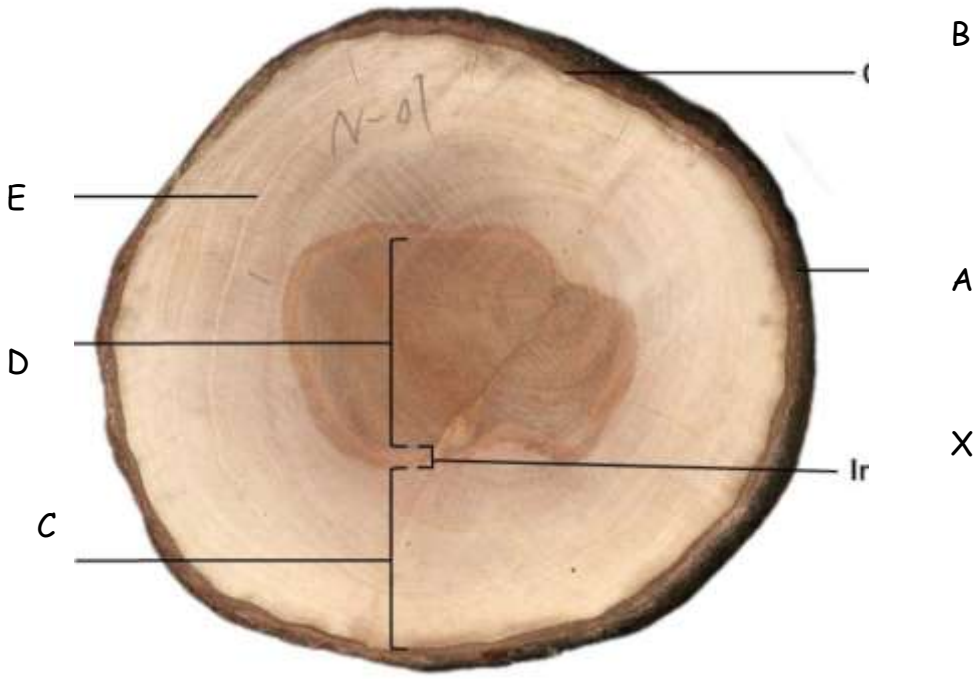
(b) **List** three safety rules that must be observed to prevent accidents in the area labeled **X**. (3 marks)

i. _____

ii. _____

iii. _____

3. Study the cross-section of the tree trunk provided below.



(a) **Identify** and **Name** the parts labeled **A, B, C, and D**. (4 marks)

A: _____.

B: _____.

C: _____.

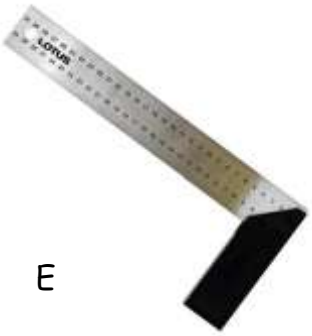
D: _____.

(b) **Distinguish** between *Softwoods* and *Hardwoods* based on their leaves and seeds. (2 marks)

Softwoods	***Hardwoods***

4. A learner in **Eldoret** is preparing to mark out a joint.

(a) **Identify** the tools shown in the image. (2 marks)



E



G

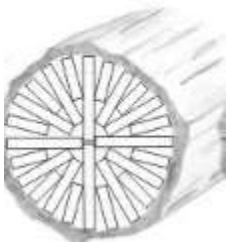
E: _____

G: _____

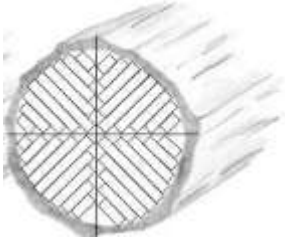
(b) **Match** the tool to its correct classification: (3 marks)

Tool	**Classification**
Jack Plane	(i) Impelling Tool
Claw Hammer	(ii) Boring Tool
Ratchet Brace	(iii) Planing Tool

5. Study the methods of sawing timber shown below.



P



Q

(a) **Identify** method **P** and method **Q**. (2 marks)

P: _____

Q: _____

(b) **Explain** one advantage of Method **Q** over Method **P**. (2 marks)

_____

_____

_____

(c) **State** whether the following is **True or False**:

"Seasoning reduces the moisture content of timber." [_____] (1 mark)

6. (a) **Define** the term *Adhesive*. (1 mark)

_____

_____

(b) **Outline** two characteristics of an *External Use* adhesive compared to an *Internal Use* adhesive. (2 marks)

i. _____
ii. _____

(c) **Mention** two safety precautions to take when disposing of chemical wood glues in **Kenya**. (2 marks)

i. _____
ii. _____

SECTION B: [50 MARKS]

Answer ALL questions in the spaces provided.

7. A learner at **Nyeri Senior School** is given a rough piece of Cypress timber to prepare for a project.

(a) **Describe** the steps involved in "Truing Up" a piece of stock to a specific size. (4 marks)

i. _____
ii. _____
iii. _____
iv. _____

(b) **Identify** the tool used to check the flatness of the face side. (1 mark)

_____

(c) **Explain** why it is important to mark the "Face Side" and "Face Edge" with witness marks. (3 marks)

i. _____
ii. _____
iii. _____

(d) **State** the use of a *Bench Hook* during wood preparation. (2 marks)

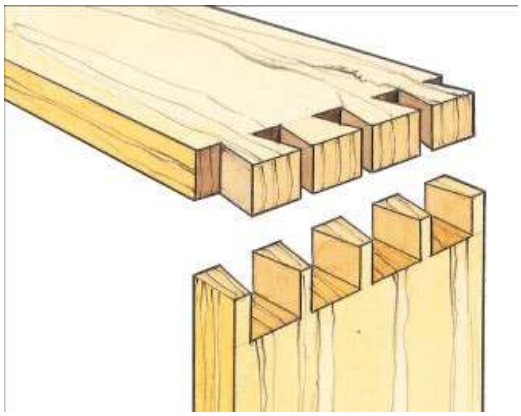
i. _____
ii. _____

8. During a practical exam at **Kamandura Senior School**, learners are asked to construct the following joints for a stool project.

(a) **Name** joints **X** and **Y**. (2 marks)



X



Y

X: _____

Y: _____

(b) **Classify** these joints as either *Framing*, *Widening*, or *Lengthening* joints. (2 marks)

Joint	**Joint category**
X	
Y	

(c) **Outline** the procedure for cutting the "Mortise" part of joint **X**. (4 marks)

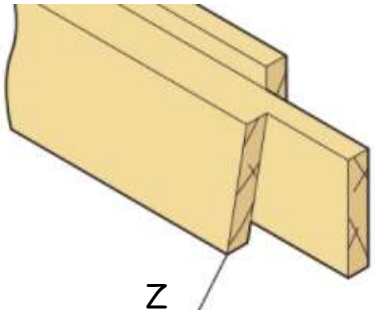
i. _____
ii. _____
iii. _____
iv. _____

(d) **List** two fasteners that can be used to strengthen a widening joint. (2 marks)

i. _____

ii. _____

(e) **Identify** the part of the Tenon labeled **Z** in the diagram. (2 marks)



_____

9. Four learners are describing the materials they need for finishing a coffee table in **Nakuru**:

Kiplagat: "I need a tool to remove fine plane marks and burrs."

Achieng: "I need different grades of abrasive paper."

Musa: "I need a liquid to give the wood a clear, hard, protective coat."

Wanjiku: "I need a damp cloth and hot iron to remove small dents."

(a) **Identify** the materials/tools described by Kiplagat, Achieng, and Musa. (3 marks)

Learner	**KIPLANGAT**	**ACHIENG**	**MUSA**
Material /tool described			

(b) **Explain** the process Wanjiku is describing and why it works. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(c) **State** three reasons for applying a finish (like varnish) to a wooden product. (3 marks)

i. _____

ii. _____

iii. _____

(d) **Describe** the correct direction of sanding in relation to the wood grain. (4 marks)

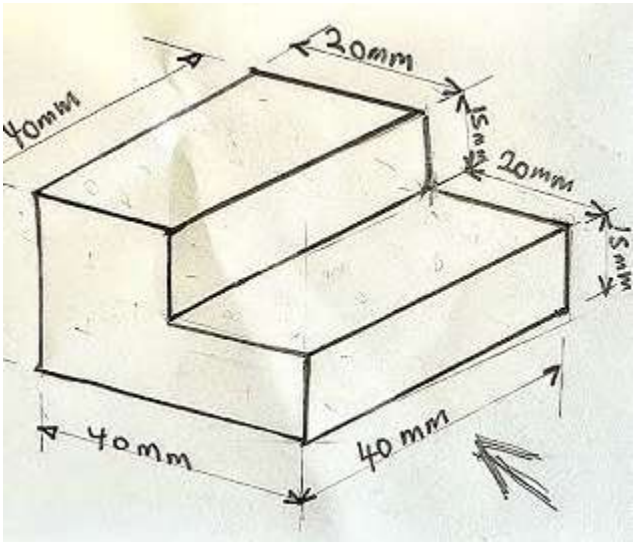
i. _____

ii. _____

iii. _____

iv. _____

10. A student at **Tala Boys** is designing a simple bedside cabinet.



(a) **Identify** the type of pictorial drawing shown above. (1 mark)

_____

(b) **Distinguish** between *Isometric* and *Oblique* projections. (4 marks)

Isometric	*Oblique*

(c) **Sketch** the **Orthographic Views** of the cabinet shown in the image. (6 marks)

(d) **Explain** the importance of freehand sketching in the design process before actual construction. (3 marks)

i. _____

ii. _____

iii. _____