KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

TERM 2: ENDTERM ASSESSMENT 2026

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. Four learners at **Kapkabut Senior School** in **Iten** are discussing their future careers after the Wood Technology course.

- **Maina:** "I want to design and build high-end office furniture."
- **Cherono:** "I want to work in the forest department ensuring timber trees grow to maturity."
- **Mutua:** "I want to be an Architect, creating drawings for timber-framed houses."
- **Wambui:** "I want to start a business selling specialized wood adhesives and finishes."

(a) **Identify** the specific career path for each learner: (4 marks)

- Maina: _____
- Cherono: _____
- Mutua: _____
- Wambui: _____

(b) **Mention** one way Wood Technology contributes to Kenya's economy. (1 mark)

_____

_____

2. A Grade 10 class at **Muranga Boys** is designing their new workshop layout.

(a) **Identify** the feature labeled **X** in the workshop diagram above. (1 mark)



_____

(b) **State** two reasons why it is important to observe safety rules in a wood workshop. (2 marks)

(i) _____

(ii) _____

(c) **True/False:**

The "First Aid Kit" should be kept in a locked cupboard where students cannot reach it. [_____] (1 mark)

(d) **Name** the safety equipment shown below: (1 mark)



_____

3. A technician at **Nyeri High School** has laid out tools for a marking-out exerci

(a) **Name** the tools: (3 marks)



A B C

A: _____ B: _____ C: _____

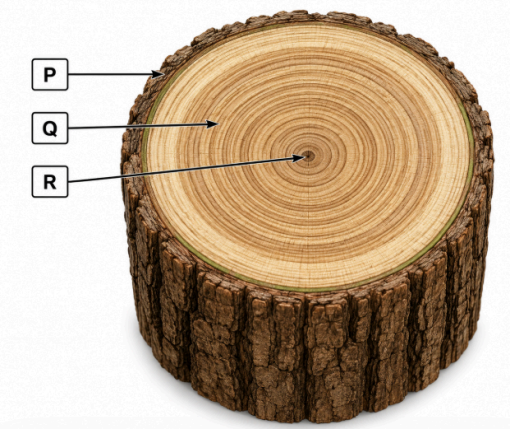
(b) **Classify** tool **C** based on its function. (1 mark)

_____

(c) **Identify** the tool used to hold a piece of wood firmly to the workbench while sawing. (1 mark)

_____

4. During a nature walk in **Mau Forest**, learners observed a cross-section of a fallen tree.



(a) **Identify** the parts: (3 marks)

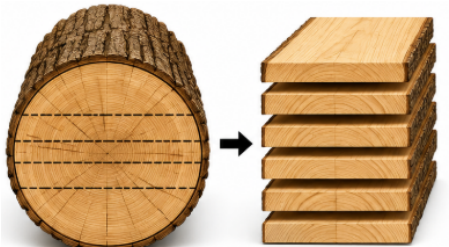
P: _____ Q: _____ R: _____

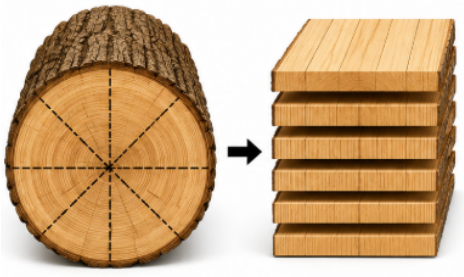
(b) **Distinguish** between Softwoods and Hardwoods based on their physical leaves. (2 marks)

Softwood	Hardwood

5. A sawmill in **Eldoret** uses different methods to cut logs into timber.

(a) **Identify** the conversion methods: (2 marks)





Method X: _____ Method Y: _____

(b) **Explain** why timber must be "seasoned" before use. (2 marks)

_____

_____

(c) **Mention** one method of timber seasoning. (1 mark)

_____

6. A learner at **Machakos Girls** is choosing a glue for an outdoor garden bench.

(a) **Select** the best type of adhesive for a project that will be exposed to rain. (1 mark)

_____

(b) **Describe** one safety precaution when handling chemical wood glues. (2 marks)

_____

_____

(c) **Identify** the tool shown below used to apply pressure while the glue sets: (2 marks)



_____

SECTION B (50 MARKS)

7. A student at Precious Blood Senior School is truing up a piece of Cypress timber for a project.

(a) **Outline** the correct procedure for "Truing up" a piece of wood. (4 marks)

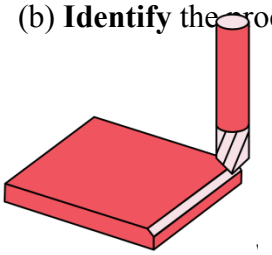
i. _____

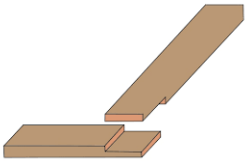
ii. _____

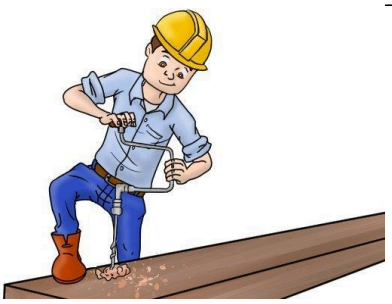
iii. _____

iv. _____

(b) **Identify** the processes shown in the diagrams below: (3 marks)







_____ _____ _____

(c) **Describe** the function of a **Bench Hook**. (3 marks)

i. _____

ii. _____

iii. _____

(d) **List** two tools used for sharpening wood chisels. (2 marks)

i. _____

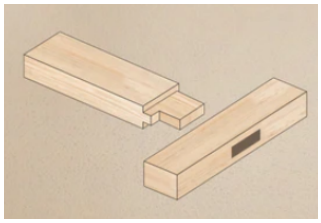
ii. _____

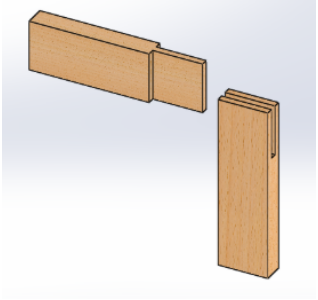
(e) **Explain** the difference between a **Bevel** and a **Chamfer**. (3 marks)

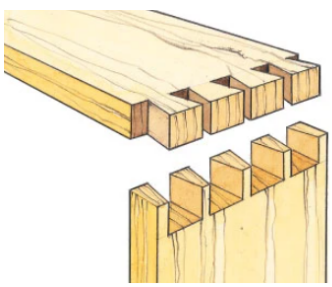
Bevel	Chamfer

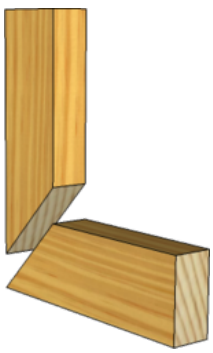
8. During a practical at **Lukenya Senior School**, learners are making a shoe rack.

(a) **Identify and Name** the following joints from the pictures: (4 marks)









P **Q** **R** **S**

P: _____

Q: _____

R: _____

S: _____

(b) **Classify** the joints above into either **Framing joints** or **Widening joints**. (2 marks)

	Framing joints	**Widening joints**
Q		
R		
S		
T		

(c) **Identify** the fasteners shown below: (3 marks)



M



N



O

M: _____

N: _____

O: _____

(d) **Explain** the role of a "Pilot Hole" when using screws in hardwood. (3 marks)

i. _____

ii. _____

iii. _____

(e) **State** three advantages of using joints instead of only using nails to join wood. (3 marks)

i. _____

ii. _____

iii. _____

9. A learner in **Nakuru** has finished assembling a coffee table and wants to apply varnish.

(a) **List** three materials or tools required for surface preparation before varnishing. (3 marks)

i. _____

ii. _____

iii. _____

(b) **Describe** the process of "Raising the Grain" and why it is done. (3 marks)

i. _____

ii. _____

iii. _____

(c) **Identify** the grade of sandpaper that should be used for the *final* sanding. (1 mark)

_____

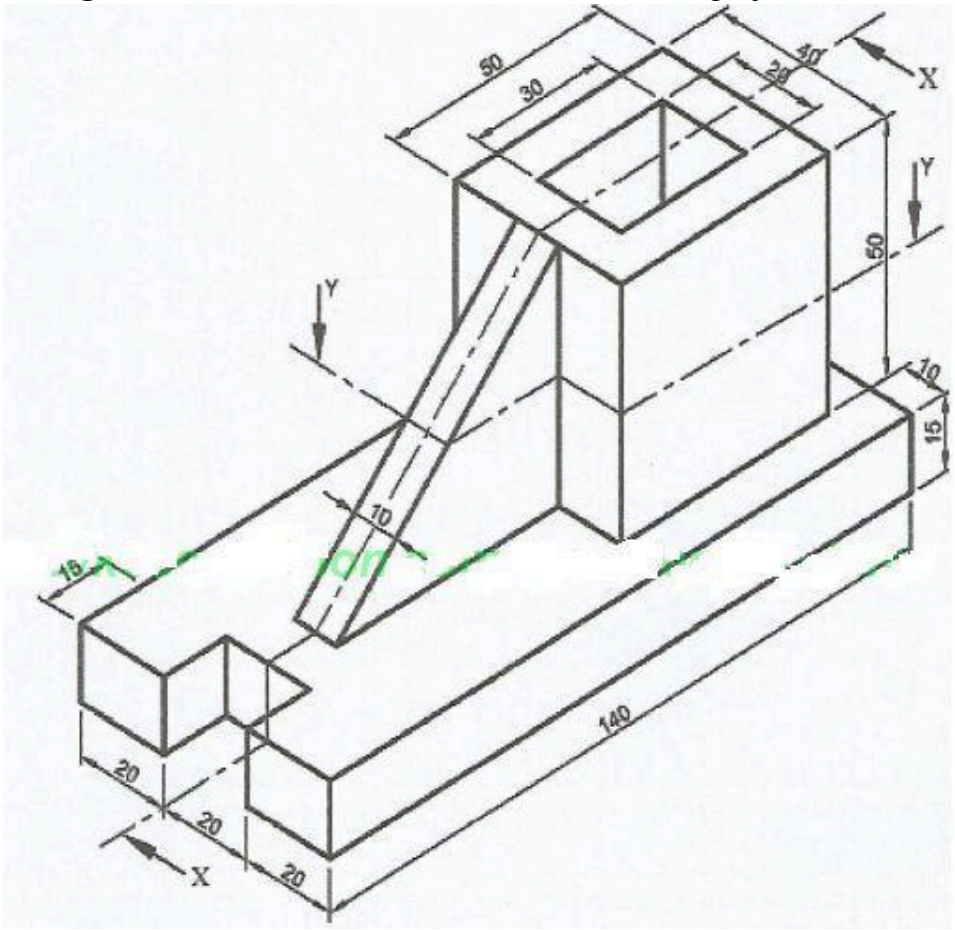
(d) **Explain** two reasons for applying a "Clear Varnish" to a wood product. (3 marks)

i. _____

ii. _____

Answer question **10** on **A3 paper** and any other **three** questions from this section in the spaces provided.
Candidates are advised **not to spend more than 20 minutes on question 10**.

10. **The figure below** shows a machine drawn in isometric projection.



Draw the following views of the component **Full Size** in first angle projection: (15 marks)

a) Sectional front elevation along the cutting plane X-X.
b) Sectional plan along the cutting plane Y-Y

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MARKING SCHEME

WOOD TECHNOLOGY (GRADE 10) -

SECTION A (30 MARKS)

1. Overview and Careers (5 Marks)

(a) **Careers:**

- ✔ Maina: **Furniture Designer / Cabinet Maker**
- ✔ Cherono: **Forester / Silviculturist**
- ✔ Mutua: **Architect / Structural Drafter**
- ✔ Wambui: **Hardware Entrepreneur / Wood Finishes Specialist**

(b) **Economy:** Provides employment, contributes to the construction industry, or generates revenue through timber exports.

2. Workshop Layout and Safety (5 Marks)

(a) **Feature X: Workbench**.

(b) **Safety:**

(i) To prevent accidents and injuries.

(ii) To protect tools and equipment from damage.

(c) **True/False: False** (It must be easily accessible).

(d) **Safety Equipment: Safety Goggles / Eye Protection**.

3. Hand Tools Identification (5 Marks)

(a) **Tools:** A: **Try Square**, B: **Marking Gauge**, C: **Jack Plane**.

(b) **Classification: Planing tool**.

(c) **Holding tool: Bench Vice / G-Clamp**.

4. Growth and Parts of a Tree (5 Marks)

(a) **Parts:** P: **Bark**, Q: **Annual Rings**, R: **Pith / Heartwood**.

(b) **Distinguish: Softwoods** usually have needle-like leaves (conifers); **Hardwoods** have broad leaves (deciduous).

5. Timber Conversion and Seasoning (5 Marks)

(a) **Methods:** Method X: **Through and Through (Plain Sawing)** | Method Y: **Quarter Sawing**.

(b) **Reason:** To reduce moisture content, preventing warping, shrinking, or rot in the finished product.

(c) **Method:** Air seasoning or Kiln seasoning.

6. Adhesives and Bonding (5 Marks)

(a) **Adhesive: Waterproof glue (e.g., Resorcinol or Polyurethane glue)**.

(b) **Precaution:** Work in a well-ventilated area or wear gloves to avoid skin irritation.

(c) **Tool: G-Clamp**.

SECTION B (50 MARKS)

7. Wood Preparation and Processes (15 Marks)

(a) **Procedure:** 1. Prepare Face Side. 2. Prepare Face Edge. 3. Gauge to Width. 4. Gauge to Thickness. 5. Cut to Length.

(b) **Identify:** [Based on diagrams: e.g., Chamfering, Rebating, Boring].

(c) **Bench Hook:** It holds small pieces of wood steady and protects the workbench surface during sawing or chiseling.

(d) **Sharpening:** Oilstone (Whetstone) and a Honing guide.

(e) **Difference:** A **Chamfer** removes an edge at a 45° angle but does not meet the other side; a **Bevel** slopes the entire edge from one face to the other.

8. Woodworking Joints and Fasteners (15 Marks)

(a) **Joints:**

P- Mortise and Tenon,

Q -Bridle Joint,

R -Dovetail,

S-Mitre Joint.

(b) **Classification:** [e.g., Framing (Mortise/Tenon) vs Widening (Tongue and Groove)].

(c) **Fasteners:**

M-Wood Screw,

N-Wire Nail,

O-Dowel

(d) **Pilot Hole:** It prevents the wood from splitting and guides the screw for easier insertion.

(e) **Advantages:** Greater strength, more aesthetic (hidden fasteners), and allows for wood expansion/contraction.

9. Surface Preparation and Finishing (10 Marks)

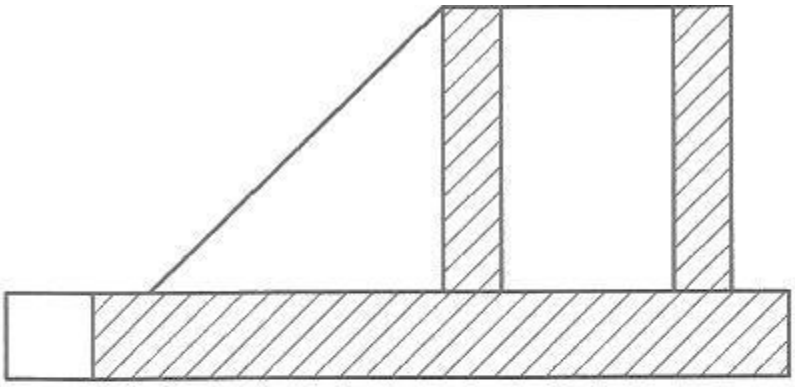
(a) **Materials:** Scraper, Sandpaper (various grits), Steel wool, or Dusting brush.

(b) **Raising the Grain:** Wetting the wood slightly to make loose fibers stand up, then sanding them off once dry to ensure a perfectly smooth finish.

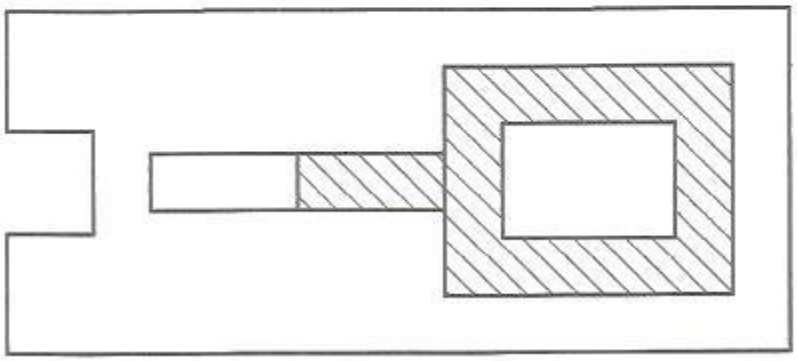
(c) **Sandpaper: Fine grade**.

(d) **Varnish:** To protect the wood from moisture/stains and to enhance the natural beauty (grain) of the wood.

10. Related Drawing (10 Marks)



SECTION X-X



SECTION Y-Y

SECTION Y-Y

Correct scale used = 1

Section x-x

- Correct section = 1
- Hatching = 1

Section y-y

- Correct section (2 parts x1)=2

Hatching (2 parts x1) = 2

Accuracy = 1

Line work = 1

Neatness = 1