COMPETENCE BASED EDUCATION

KENYA CERTIFICATE OF BASIC EDUCATION

KCBE

SENIOR SCHOOL CURRICULUM

HOMEWORK BOOK

• GRADE 10 •

S.T.E.M PATHWAY

(SCIENCE TECHNOLOGY ENGINEERING AND MATHEMATICS)

DEVELOPING 21ST CENTURY LEARNERS THROUGH:

- CRITICAL THINKING
- PROBLEM SOLVING
- COLLABORATION
- CREATIVITY & INNOVATION
- COMMUNICATION
- PRACTICAL SKILLS

Think. Explore. Innovate. Solve. Create the Future!

AUTHORS

COMPETENCE EDUCATION GROUP

Building Competence, Inspiring Excellence

LEARNER'S DETAILS

NAME: _____

SCHOOL: _____

CLASS: _____ ADM NO.: _____

DATE: _____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST HOLIDAY ACTIVITIES 2026

GRADE 10 – APPLIED AGRICULTURE
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

INSTRUCTIONS TO CANDIDATES

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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. A learner from **Eldoret** is planning to start maize farming but does not own land.

a) Define the term **agricultural land**. (1 mark)

_____

_____

b) State **two ways** the learner can access land. (2 marks)

i. _____

ii. _____

c) Outline **two natural factors** affecting land productivity. (2 marks)

i. _____

ii. _____

2. During a practical lesson, learners tested soil and observed poor drainage and low fertility.

a) Identify the **soil property** being tested. (1 mark)

3

_____

b) State **two methods** of improving this soil condition. (2 marks)

i. _____

ii. _____

c) Explain why soil properties are important in crop production. (2 marks)

i. _____

ii. _____

3. Match the tools in Column A with their uses in Column B: (3 marks)

Column A	**Column B**
(i) Secateurs	(a) Digging holes
(ii) Jembe	(b) Pruning
(iii) Panga	(c) Cutting bushes

4. Study the tools shown below carefully

a) Identify **any two tools** shown. (2 marks)

i. _____ ii _____

b) State **one maintenance practice** for each identified tool. (2 marks)

i. _____

ii. _____

5. A farmer prepares land through ploughing, harrowing, and leveling.

a) Name the **stage of land preparation** described. (1 mark)

_____

4

b) Arrange the operations in the correct order. (2 marks)

_____

_____

c) State one importance of proper land preparation. (1 mark)

_____

_____

6. State whether the statements are TRUE or FALSE. If false, correct them.

a) Weeds are always harmful to farmers._____ (1 mark)

b) Zero tillage reduces soil erosion._____ (1 mark)

c) Branding is not part of marketing agricultural produce. _____(1 mark)

7. Four learners from **Nairobi School** made the following statements:

Amina: "Sorting improves quality."

Brian: "Packaging protects produce."

Carol: "Branding helps identification."

David: "Weighing determines price."

a) Identify the agricultural activity they are describing. (1 mark)

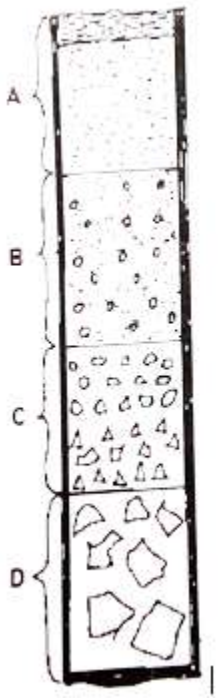
_____

b) List **two benefits** of this activity. (2 marks)

i. _____

ii. _____

8. Study the diagram below and use it to answer the questions that follow



5

a) Identify the diagram (1 mark)

_____

b) Name the parts A, B, C and D in the diagram. (2 marks)

i. _____

ii. _____

c) State the usual colour of each of the parts labelled A and B

A: _____.

B: _____.

d) A soil sample weighs 25 g before being oven dried. The soil weighs 15 after being oven dried at 105^0c. Calculate the

i. Moisture content of the soil

ii. Percentage moisture content

e) Mention four ways of conserving soil water

i. _____

ii. _____ 6

iii. _____

iv. _____

9. A farmer keeps animals for milk and meat production.

a) Distinguish between **dairy and beef breeds**. (2 marks)

Dairy breed	**Beef breed**

b) Give one example of each. (2 marks)

Dairy breed	**Beef breed**

10. A trader transporting tomatoes from **Makueni to Nairobi** incurred several costs.

a) Define **marketing expenses**. (1 mark)

_____

_____

b) Mention **three examples** of such expenses. (3 marks)

i. _____

ii. _____

iii. _____

SECTION B (50 MARKS)

(Answer ALL questions)

11. A Grade 10 learner plans to start a poultry farming enterprise.

a) Define **factors of production**. (2 marks)

_____

_____

_____

b) Explain the role of the following:

i) Land (2 marks)

_____ **7**

_____

ii) Labour (2 marks)

_____

_____

c) Describe **three ways** the learner can acquire capital. (6 marks)

i. _____

ii. _____

iii. _____

d) Explain **three factors** to consider when selecting this enterprise. (6 marks)

i. _____

ii. _____

iii. _____

12. A group of learners processed mangoes into juice for sale.

a) Define **value addition**. (2 marks)

_____

_____

b) Describe the **process of making mango juice**. (6 marks)

i. _____

ii. _____

iii. _____

c) Explain **three benefits** of value addition. (6 marks)

i. _____

ii. _____

iii. _____

d) Identify **two ethical issues** in food processing. (2 marks)

8

i. _____

ii. _____

13. Learners at **Mang'u High School** observed their goats showing signs of illness.

a) List **four signs** of ill health in livestock. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

b) Explain **four control measures** of livestock diseases. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

c) State **two benefits** of keeping animals healthy. (2 marks)

i. _____

ii. _____

14. Solomon visited a bee rearing farm and observed the following equipment in use

X Y Z

a) Identify **the items** in the diagram above. (2 marks)

X: _____ Y: _____ Z: _____ **9**

b) Explain **three factors** to consider when siting an apiary. (6 marks)

i. _____

ii. _____

iii. _____

c) Describe the **process of harvesting honey**. (6 marks)

i. _____

ii. _____

iii. _____

iv. _____

v. _____

vi. _____

15. Learners visited a market and observed produce being graded, packaged, and labeled.

a) Describe **four ways** of preparing produce for marketing. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

b) Explain **four market outlets** for agricultural produce. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

c) Evaluate **four expenses** incurred in marketing agricultural produce. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

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KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST HOLIDAY ACTIVITIES 2026

GRADE 10 – AVIATION
Time: 2 Hours

LEARNER' S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. During a lesson at **Wilson Airport, Nairobi**, learners observed a chart showing early aircraft development.

S

T

a) Identify **any two aircraft types** shown. (2 marks)

S: _____

T: _____

b) Classify each identified aircraft as **lighter-than-air or heavier-than-air**. (2 marks)

i. Hot air balloon
ii. Glider
iii. Wright plane
iv. Helicopter

lighter-than-air	**heavier-than-air**

c) Name one **aviation pioneer** associated with early flight. (1 mark) _____

2. Match aircraft in Column A with their functions in Column B: (3 marks)

Column A	**Column B**
(i) Helicopter	(a) Cargo transport
(ii) Cargo aircraft	(b) Vertical take-off
(iii) Fighter jet	(c) Defence

3. At **Moi Air Base, Eastleigh**, a learner got injured while using tools.

a) Define **aviation workplace safety**. (1 mark)

_____

_____

b) State **two hazards** in an aviation workshop. (2 marks)

i. _____
ii. _____

c) Classify injuries into **two categories**. (2 marks)

i. _____
ii. _____

4. Grade 10 Aviation Technology learners discussed about the components of a First-Aid Kit

a) Identify **two items** in the kit. (2 marks)

i. _____
ii. _____

b) State one use of each item identified. (2 marks)

Tool	**Use**

5. Write True/False in the following statements

a) Airside is accessible to the general public. _____(1 mark)
b) Mandatory signs must be obeyed._____ (1 mark)
c) Landside includes parking areas. _____(1 mark)

6. Learners observed different airport areas.

a) Name **two main areas** of an airport. (2 marks)

i. _____
ii. _____

b) State one function of each. (2 marks)

Airport area	Function

13

7. Four learners gave the following statements:

i. **Amina:** "This part carries passengers."
ii. **Brian:** "This part provides lift."
iii. **Carol:** "This part stabilizes the aircraft."
iv. **David:** "This part supports landing."

a) Identify the parts described by **any two learners**. (2 marks)

i. _____
ii. _____

b) State one function of each identified part. (2 marks)

Part	Function

8. Study the aviation tools shown below

Q

R

a) Name **two tools** shown. (2 marks)

Q _____

R _____

b) Name two **cutting tools used in aviation**. (2 marks)

i. _____
ii. _____

9. A pilot delayed take-off due to bad weather.

a) List **two elements of weather**. (2 marks)

i. _____
ii. _____

b) State one effect of each on flight. (2 marks)

Element	Effect

10. During communication practice:

a) Define **ICAO phonetics**. (1 mark)

_____
_____

b) State **three examples** (e.g., Alpha, Bravo…). (3 marks)

i. _____
ii. _____
iii. _____

SECTION B (50 MARKS)

11. A resource person explained aircraft development.

a) Explain **three historical milestones** in aviation. (6 marks)

i. _____
ii. _____
iii. _____

b) Describe contributions of:

i) Wright Brothers (2 marks)

_____

_____

ii) Igor Sikorsky (2 marks)

_____

_____

15

c) Categorise aircraft into **two main groups** and explain. (4 marks)

_____

_____

_____

_____

d) Evaluate **two functions** of aircraft in aviation. (4 marks)

i. _____

ii. _____

12.

a) Explain **four safety measures** in an airport. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

b) Describe **three types of safety signs**. (6 marks)

i. _____

ii. _____

iii. _____

c) Outline **three safety rules** when moving in an airport. (6 marks)

i. _____

ii. _____

iii. _____

13. Learners at **Alliance High School** built a model aircraft.

a) Describe functions of the following parts:

i) Wing (2 marks)

_____

_____

ii) Fuselage (2 marks)

_____

_____

iii) Landing gear (2 marks)

_____

_____

b) Explain **three properties of aircraft materials**. (6 marks)

i. _____

ii. _____

iii. _____

c) Describe **four safety precautions** when using tools. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

14.

a) Identify the **four forces acting on an aircraft**. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

b) Explain each force. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

c) Describe **three axes of an aircraft**. (6 marks)

i. _____

ii. _____

iii. _____

15. Learners visited businesses at JKIA.

a) Identify **four airport business services**. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

b) Explain **four financial concepts** in aviation business. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

c) Analyse **four consumer rights** in airport operations. (8 marks)

i. _____

ii. _____

iii. _____

iv. _____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST HOLIDAY ACTIVITIES 2026

GRADE 10 – BIOLOGY

Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. During a nature walk at Nairobi National Park, learners used various apparatus to collect specimens.

a) Identify the apparatus used to collect small crawling insects such as beetles from a pit in the ground. _____ (1 Mark)

b) Mention one preservative commonly used for the wet preservation of animal specimens in a school laboratory. _____ (1 Mark)

c) Outline two factors that should influence a learner's choice of a Biology-related career. (2 Marks)

i. _____

ii. _____

2. A Grade 10 learner at Mang'u High School is researching various fields of study within Biology to help decide on a future career.

Match the field of study in Column A with the correct description in Column B. (4 Marks)

COLUMN A: FIELD	**COLUMN B: DESCRIPTION**
i) Entomology	A. Study of the internal structure of organisms.
ii) Anatomy	B. Study of insects and their relationship to the environment.
iii) Taxonomy	C. Study of the inheritance and variation of traits.
iv) Genetics	D. Study of classification and naming of organisms.

3. State whether the following statements are TRUE or FALSE. (4 Marks)

a) An electron microscope has a higher resolution than a light microscope. _____.

b) Animal cells possess a large central vacuole and a cellulose cell wall. _____.

c) The cell is considered the basic functional unit of life. _____.

d) Magnification is the ability of a microscope to distinguish two close points as separate. _____.

4. Kamau, a student at Alliance High School, is observing a plant cell under a light microscope.

a) Define the term "staining" as used in the preparation of temporary slides. (2 Marks)

_____

_____

b) Distinguish between resolution and magnification of a microscope. (2 Marks)

_____

_____

_____

5. Three learners at are discussing the Chemicals of Life.

Zawadi: "Proteins are tested using Benedict's solution which turns orange-red."

Mutua: "Actually, Zawadi, Benedict's test is for reducing sugars; proteins are tested using the Biuret reagent."

Achieng: "And don't forget that Vitamin C is tested using DCPIP, which becomes decolorized."

a) Identify the learner who made a false statement. (1 Mark)

_____

b) List two factors that affect the rate of enzymatic reactions in a cell. (2 Marks)

i. _____

ii. _____

6. A pilot flying over Kisumu is experiencing high energy demands.

a) Define the Respiratory Quotient (RQ). (2 Marks)

_____

_____

b) List four general characteristics of an efficient respiratory surface in animals. (4 Marks)

i. _____

ii. _____

iii. _____

iv. _____

7. Mention three levels of organization in a multicellular organism, starting from the smallest unit. (3 Marks)

i. _____

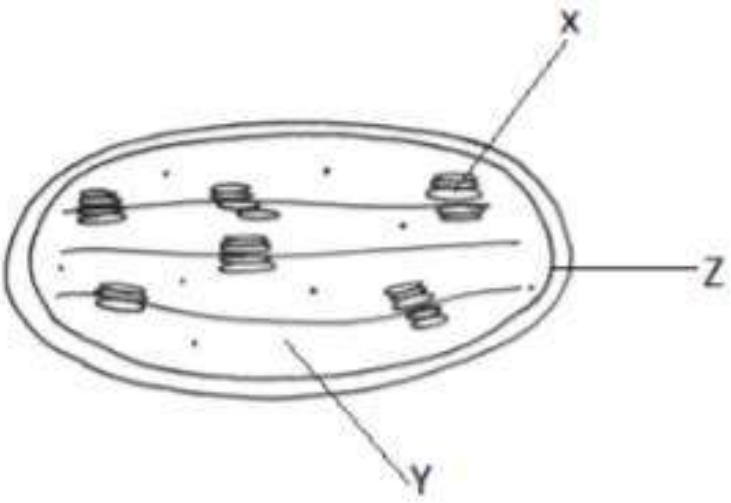
ii. _____

iii. _____

SECTION B: (50 MARKS)

Answer ALL questions in this section.

8. (a) Below is a diagram of an organelle found in green plants.



i) Name the organelle illustrated above. (1 Mark)

_____

ii) State the function of the organelle above. (1 Mark)

_____

iii) Identify the parts labelled. (3 Marks)

X: _____

Y: _____

Z: _____

iv) State two adaptations of the organelle to its function. (2mks)

_____

_____

v) Write the word equation for photosynthesis. (1 Mark)

_____

_____

9. A Grade 10 class is studying a cross-section of a dicotyledonous stem.

a) Name the two main vascular tissues involved in transport. (2 Marks)

i. _____

ii. _____

b) Relate the structure of xylem to its function in transporting water. (3 Marks)

_____
_____
_____
_____

c) Describe the Girdling experiment and state its purpose. (3 Marks)

_____
_____
_____
_____

10. Plants in the Nakuru region adapt to different environments.

a) Name the sites of gaseous exchange in:

i) A woody stem _____ (1 Mark)

ii) A leaf _____ (1 Mark)

b) Explain the Photosynthetic Theory of the opening and closing of stomata. (4 Marks)

_____
_____
_____
_____

11. Learners at Starehe Boys' Centre are comparing the mouthparts of various insects.

a) Match each insect with its feeding mode. (3 Marks)

Mosquito: _____

Butterfly: _____

Housefly: _____

b) Relate the structure of a hawk's beak to its feeding habit. (2 Marks)

_____
_____
_____

_____

12. A mammalian heart is being studied at a health facility in Mombasa.

a) Name the four chambers of the mammalian heart. (4 Marks)

i. _____

ii. _____

iii. _____

iv. _____

b) Describe the pumping mechanism of the heart during ventricular systole. (3 Marks)

_____
_____
_____
_____

c) State the significance of the Rhesus factor in blood transfusion. (3 Marks)

_____
_____
_____
_____

13. A learner is checking their breathing rate after physical exercise.

a) Identify the respiratory surface in the human lung. (1 Mark)

_____

b) Compare inhaled air and exhaled air in terms of Oxygen and Carbon (IV) Oxide. (4 Marks)

_____
_____
_____
_____

c) Explain the concept of oxygen debt. (3 Marks)

_____
_____
_____

_____

14.A group of learners is starting a project on preserving biological specimens for sale to schools.

a) Define the following terms:

i) Revenue (1 Mark)

_____

_____

ii) Profit (1 Mark)

25

_____

_____

b) List two ways of ensuring the safety and quality of food products using information found on packaging labels. (2 Marks)

i. _____

ii. _____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – BUILDING CONTRUCTION

Time: 2 Hours

LEARNER'S DETAILS

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

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LEARNER'S TOTAL SCORE											

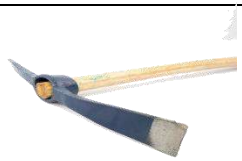
SECTION A (30 MARKS)

Answer ALL questions in this section.

1. A learner named **Amani** from **Alliance High School** is preparing a site in **Kiambu** for a new classroom block. **Amani** needs to select the correct hand tools for site clearing and stripping.

   (a) **Identify** the tools below and **state** their specific use in site preparation. (4 Marks)

Tool	Name	Use

(b) **Mention** one factor Amani should consider when selecting this building site according to the building code. (1 Mark)

_____

2. **State** whether the following statements regarding the historical development of buildings are **TRUE** or **FALSE**. (3 Marks)

   i. Early humans primarily used caves as their first form of permanent shelter. [_____]
   ii. The industrial revolution had no impact on the materials used in modern building construction. [_____]
   iii. Historically, building development has moved from simple natural shelters to complex skyscraper designs. [_____]

3. **Moraa**, a student in **Eldoret**, is moving from manual isometric drawing to CAD.

   (a) **Distinguish** between an isometric drawing and a plane shape drawing. (2 Marks)

_____

_____

(b) **List** two types of CAD software Moraa might use to set up her drawing environment. (2 Marks)

   i. _____
   ii. _____

4. **Select** the correct constituent material for concrete described by the learners below: (4 Marks)

   i. **Kiplagat:** "I am the binding agent that holds everything together when water is added." (_____)
   ii. **Atieno:** "I provide bulk and strength; I am often called ballast." (_____)
   iii. **Wanjiku:** "I am the fine aggregate used to fill the voids between larger stones." (_____)
   iv. **Mutua:** "I trigger the chemical reaction called hydration." (_____)

5. **Match** the tool shown in the images to its primary function in foundation walling. (5 Marks)

i.	**Spirit Level**	A. Ensuring the wall is perfectly vertical (plumbness).
ii.	**Plumb Bob**	B. Checking the horizontal level of the stone courses.
iii.	**Builder's Square**	C. Ensuring the corners are set at exactly 90 degrees.

6. **Match** the plumbing material to its typical property or use. (4 Marks)

i.	**Plastic (PVC)**	A. High thermal conductivity; used for hot water.
ii.	**Copper/Metal**	B. Non-corrosive and lightweight.
iii.	**Ceramic**	C. Used for heavy-duty external drainage.
iv.	**Concrete**	D. Used for sanitary fixtures like toilet bowls.

7. Five safety precautions a learner should observe when using a **Pipe Cutter** or **Die Stock** in the workshop. (5 Marks)

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

SECTION B: 50 MARKS

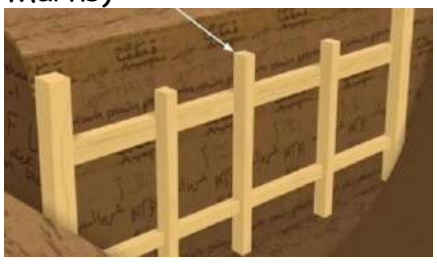
(Answer ALL questions in this section)

8. A contractor in **Mombasa** is excavating a trench in **loose, wet soil**.

(a) **Define** the term "Timbering" and **explain** its importance in this scenario. (3 Marks)

_____
_____
_____

(b) **Identify** and **Name** the components labeled **X, Y, and Z** in the timbering illustration below. (6 Marks)



X: _____ Y: _____ Z: _____

(c) **Describe** the procedure for setting out a **Strip Foundation** using the 3-4-5 method. (6 Marks)

i. _____

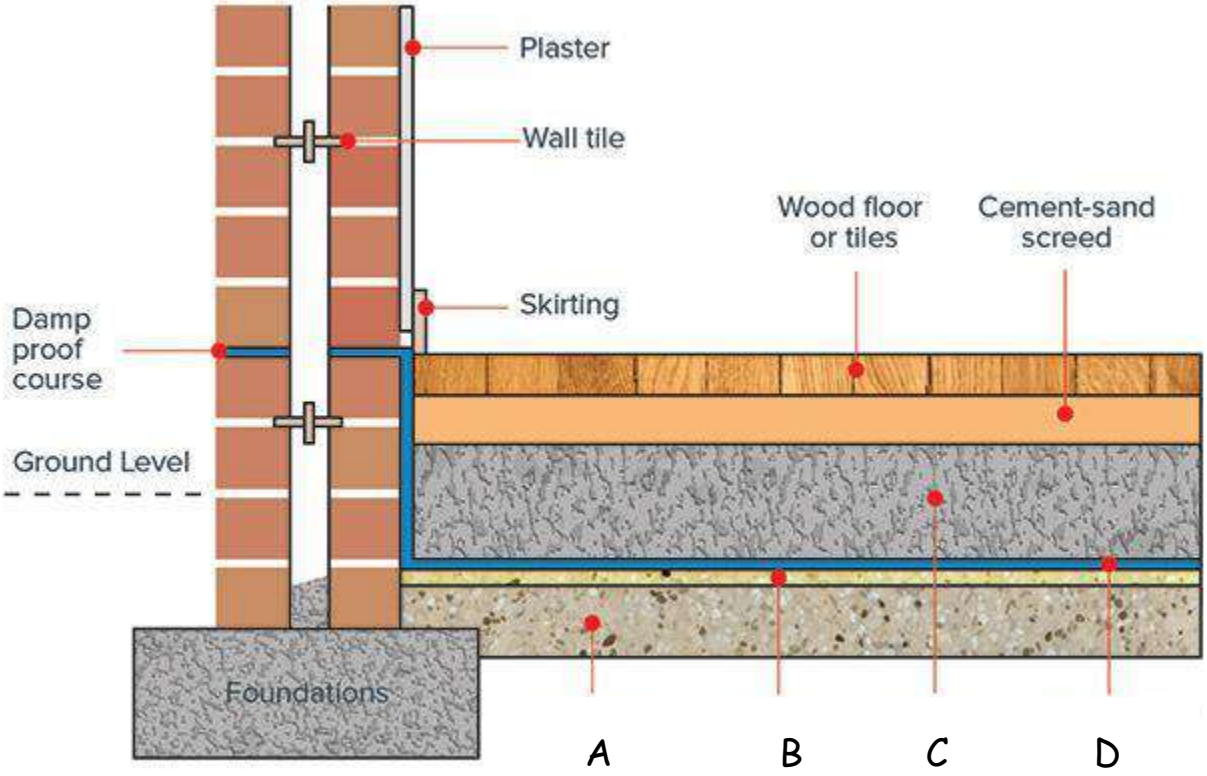
ii. _____

iii. _____

iv. _____

v. _____

9. Learners at **Kisumu Senior School** are constructing a solid ground floor.



(a) **Identify** the components **A, B, C, and D** in the cross-section diagram below. (4 Marks)

A: _____

B: _____

C: _____

D: _____

(b) **Explain** the function of the **Damp Proof Membrane (DPM)** in a solid ground floor. (3 Marks)

i. _____

ii. _____

iii. _____

iv. _____

v. _____

(c) **List** three steps in the process of **curing** a concrete floor. (3 Marks)

i. _____

ii. _____

iii. _____

10. A plumber is required to install a sink in a new building in **Nakuru**.

(a) **Name** the three pipe fittings shown below. (3 Marks)

30

1. _____ 2. _____ 3. _____

(b) **Describe** the step-by-step procedure for **threading** a GI pipe using a die stock. (6 Marks)

i. _____

ii. _____

iii. _____

(c) **Explain** how to calculate the **radius of a bend** before performing pipe bending. (6 Marks)

i. _____

ii. _____

iii. _____

11. (a) **Illustrate** by sketching a basic building section and **label** the following components: Floor, Wall, Roof, and Foundation. (6 Marks)

(b) **Compare** the use of manual drawing instruments versus CAD software in terms of speed and accuracy. (4 Marks)

Manual drawing instruments	Cad software

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – CHEMISTRY
Time: 2 Hours

LEARNER'S DETAILS

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

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

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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 are observing samples of Group II elements (Magnesium and Calcium) placed in beakers of water.

Kibet: "The Calcium is reacting much faster than the Magnesium."

Maina: "I can see bubbles of a colorless gas forming on the surface of both metals."

Ochieng: "When I add phenolphthalein indicator, the water turns pink."

(a) **Identify** the colorless gas mentioned by Maina._____ (1 Mark)

(b) **Name** the product formed that causes the water to turn pink in Ochieng's observation. (1 Mark)

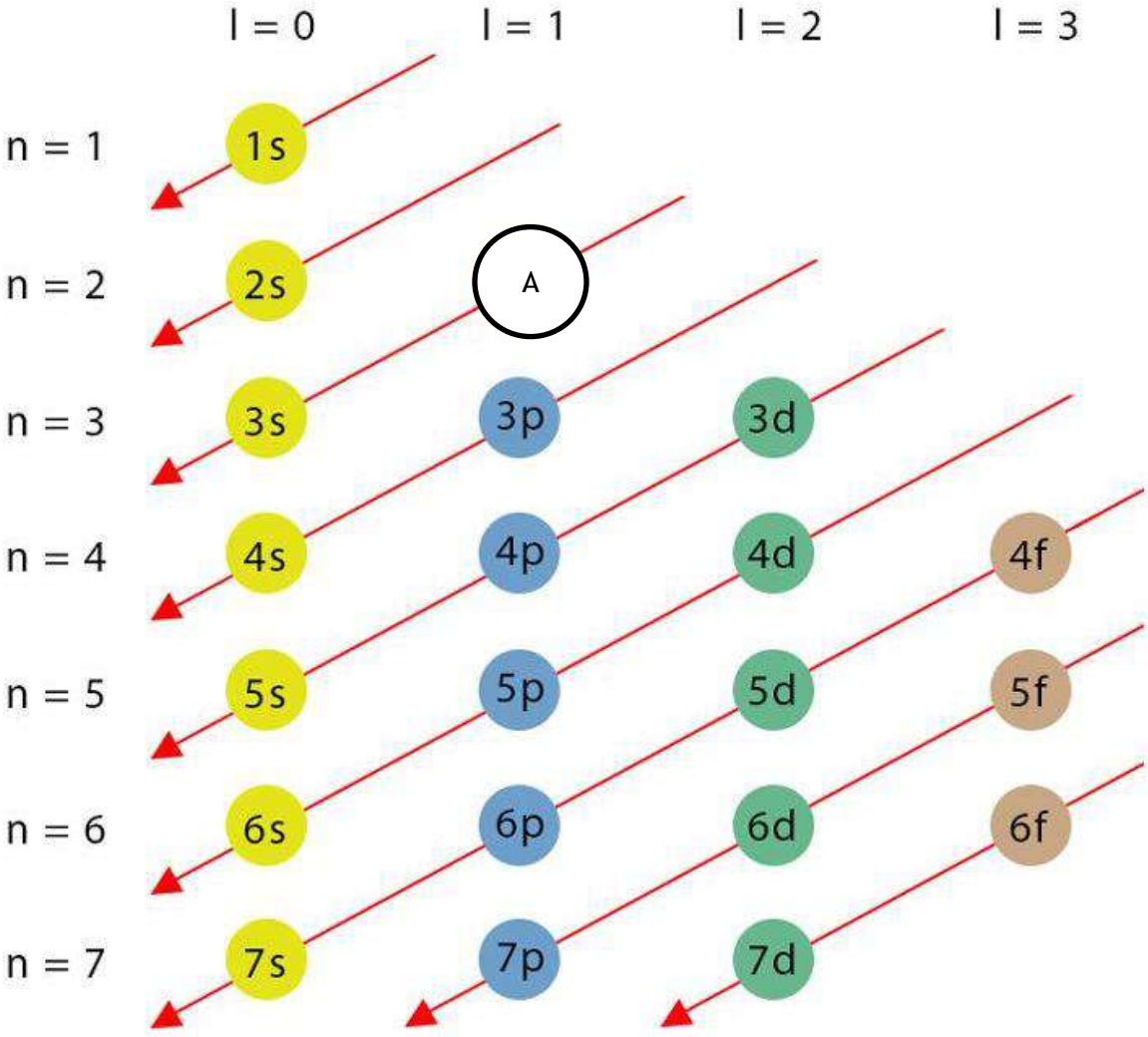
_____

(c) **Explain** why Kibet observed a faster reaction with Calcium than with Magnesium. (2 Marks)

_____

_____

2. Study the diagram below showing the filling order of electrons in sub-orbitals.



(a) **Identify** the sub-orbital labeled **A**. (1 Mark)

_____

(b) **Write** the full electronic configuration for an atom with atomic number 16 using **s and p notation**. (2 Marks)

_____

_____

3. Look at the illustration below representing the structure of Silver metal.

X

Y

(a) **Name** the parts labeled **X** (the positive centers) and **Y** (the moving particles). (2 Marks)

X: _____

Y: _____

(b) **Select** one property of Aluminium that makes it suitable for making overhead electric cables. (1 Mark)

_____

_____

4. **Amina** from **Mama Ngina Girls** is performing a "Mystery Salt" identification test. She is given four containers. (a) **Match** the salt to its solubility category in water: (4 Marks)

Salt Name	**Solubility Category**
i) Potassium Nitrate	A. Insoluble
ii) Barium Sulphate	B. Soluble
iii) Silver Chloride	C. Insoluble
iv) Sodium Carbonate	D. Soluble

5. (a) **Identify** the color of the Universal Indicator in a solution of pH 12. (1 Mark)

_____

(b) Write **True or False in the following statement:** Ethanoic acid is a strong acid because it fully dissociates in water. [_____] (1 Mark)

6. (a) **Define** "Relative Atomic Mass" (R.A.M). (2 Marks)

_____

_____

(b) **Calculate** the R.A.M of an element with two isotopes: Isotope A (mass 35, abundance 75%) and Isotope B (mass 37, abundance 25%). (2 Marks)

SECTION B (50 MARKS)

(Answer ALL questions in this section)

7. At **Kapsabet Boys High School**, a group of learners is preparing Copper (II) Sulphate crystals by reacting Copper (II) Oxide with dilute Sulphuric (VI) acid.

(a) **Identify** the type of reaction taking place. (1 Mark)

_____

(b) **Explain** why the Copper (II) Oxide is added in excess to the acid. (2 Marks)

_____

_____

(c) **Describe** the purpose of the "filtration" step in this process. (1 Mark)

_____

_____

(d) **Outline** the remaining steps needed to obtain pure crystals from the resulting solution. (2 Marks)

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

(e) **State** the color of the Copper (II) Sulphate crystals formed. (1 Mark)

_____

8. Study the trend in melting points for Period 3 elements (Na, Mg, Al, Si, P, S, Cl, Ar) shown in the graph below.

(a) **Name** the element with the highest melting point in Period 3. (1 Mark)

(b) **Explain** why Silicon has a much higher melting point than Phosphorus. (2 Marks)

(c) **Describe** the trend in atomic radius from Sodium to Argon and **give a reason** for this trend. (2 Marks)

(d) **Distinguish** between *Ionization Energy* and *Electron Affinity*. (2 Marks)

9. (a) **Draw** a dot and cross diagram to show the bonding in a Hydroxonium ion (H_3O^+). (2 Marks)

(b) **Identify** which bond in H_3O^+ is a *Dative Covalent bond* and **explain** how it is formed. (2 Marks)

(c) **Compare** the electrical conductivity of molten Sodium Chloride and liquid Carbon Tetrachloride. Give a reason. (2 Marks)

_____

_____

10. A student at **Lenana School** is cleaning rusted iron gates using a commercial "Rust Remover" which contains phosphoric acid.

(a) **Mention** two safety precautions the student should take when handling the rust remover. (2 Marks)

i. _____

ii. _____

(b) **Describe** how Chemistry has helped in the "Entertainment Industry" and "Sports Industry." (2 Marks)

i. _____

ii. _____

iii. _____

iv. _____

(c) **Examine** three effects of drug and substance abuse on a learner's health. (3 Marks)

i. _____

ii. _____

iii. _____

(d) **Outline** the role of Chemistry in the manufacturing of inorganic fertilizers to boost Kenyan agriculture. (4 Marks)

i. _____

ii. _____

iii. _____

11. Define the following terms. (2 Marks)

a) **Cation**

_____

_____

b) **Anion**

_____

_____

12. State one application of Chemistry in each of the following fields. (3 Marks)

a) **Agriculture**

_____

_____

b) **Clothing Industry**

_____

_____

c) **Medicine**

_____

_____

13. Describe the contributions of the following scientists to the development of Atomic Theory. (3 Marks)

a) **John Dalton**

_____

_____

b) **J. J. Thomson**

_____

_____

c) **Ernest Rutherford**

_____

_____

14. Lithium has two isotopes with mass numbers 6 and 7 respectively. If the Relative Atomic Mass (R.A.M.) of lithium is 6.94, calculate the percentage abundance of each isotope. (3 Marks)

15. An element P has two isotopes with relative abundances of 65% and 35%. If the mass numbers of the isotopes are X and 31 respectively, determine the value of X given that the Relative Atomic Mass (R.A.M.) of P is 30. (3 Marks)

16. Write the electron arrangement of the alkali metals using the s and p notation. (3 Marks)

a) Lithium

_____

_____

b) Sodium

_____

_____

c) Potassium

_____

_____

17. Explain how electron spin contributes to the stability of an atom. (2 Marks)

_____

_____

18. Briefly explain the contribution of the following scientists to the development of the Periodic Table. (2 Marks)

a) **Dmitri Mendeleev**

_____

_____

_____

b) **Henry Moseley**

_____

_____

_____

19. Using dots (·) and crosses (×) to represent electrons, illustrate how the following atoms form ions. (3 Marks)

a) **Aluminium**

b) **Oxygen**

c) **Fluorine**

20. Derive the chemical formulae for the following compounds. (3 Marks)

a) Aluminium chloride

_____

_____

b) Ammonium sulphate

_____

_____

c) Magnesium nitride

_____

_____

d) Silicon (IV) oxide

_____

_____

e) Sulphur (IV) oxide

f) Nitrogen (II) oxide

21. Write and balance the chemical equations for the following reactions. (4 Marks)

a) Iron + Sulphur → Iron(II) sulphide

b) Sodium hydroxide + Nitric(V) acid → Sodium nitrate + Water

22. Balance the following chemical equations. (12 Marks)

a) $Mg_{(s)} + HCl_{(aq)} \rightarrow MgCl_{2(aq)} + H_{2(g)}$

b) $Na_{(s)} + H_2O_{(l)} \rightarrow NaOH_{(aq)} + H_{2(g)}$

c) $NaOH_{(aq)} + H_2SO_{4(aq)} \rightarrow Na_2SO_{4(aq)} + H_2O_{(l)}$

d) $CuCO_{3(s)} + HNO_{3(aq)} \rightarrow Cu(NO_3)_{2(aq)} + CO_{2(g)} + H_2O_{(l)}$

e) $H_2S_{(g)} + O_{2(g)} \rightarrow SO_{2(g)} + H_2O_{(l)}$

f) $C_2H_{6(g)} + O_{2(g)} \rightarrow CO_{2(g)} + H_2O_{(l)}$

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – COMPUTER STUDIES
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. A learner is studying computer architecture.

(a) Identify the functional unit labelled CPU (1 mk)

_____

(b) Name TWO components inside the CPU (2 mks)

i) _____

ii) _____

(c) State ONE function of the ALU (1 mk)

_____

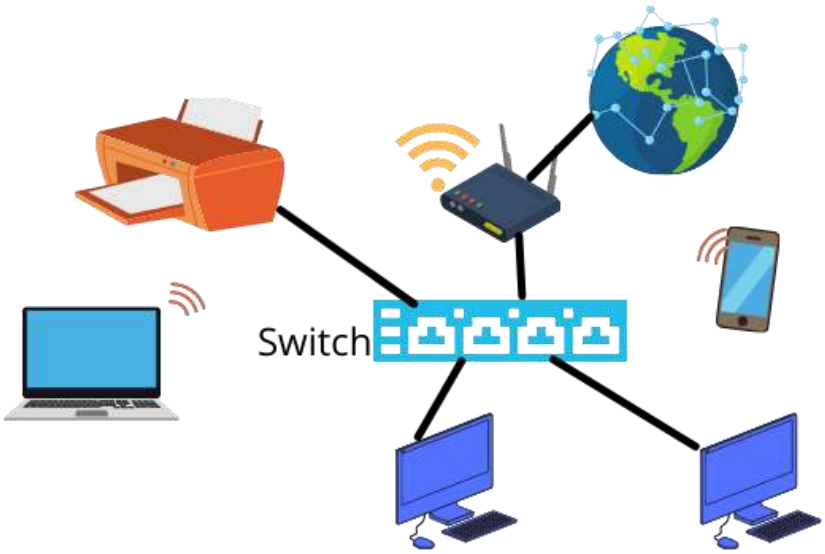
_____

(d) Define the term "computer architecture" (2 mks)

_____

_____

2. Study the diagram:



A school in **Turkana** is setting up a LAN.

(a) Name the type of network shown (1 mk)

_____

(b) Identify TWO devices used in the diagram (2 mks)

i) _____

ii) _____

(c) State ONE advantage of LAN (1 mk)

_____

(d) Explain ONE function of a router (2 mks)

_____

_____

3. Three learners describe programming:

   Aisha: "It is writing instructions for a computer"

   Brian: "It is only typing code"

   Kevin: "It is solving problems using algorithms"

(a) Identify the correct definition (1 mk)

_____

(b) State TWO stages of program development (2 mks)

i) _____

ii) _____

(c) Define an algorithm (2 mks)

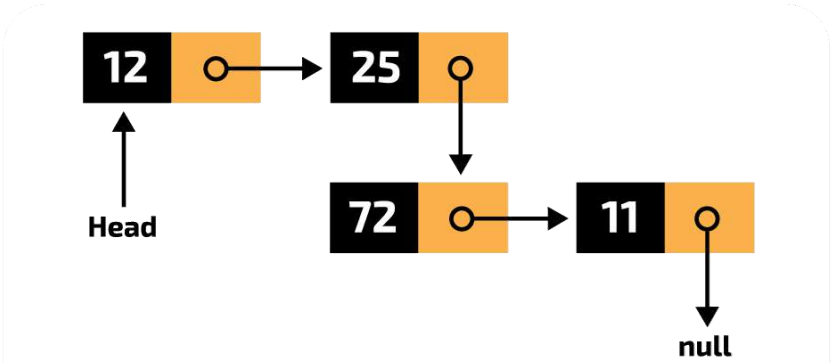
_____

_____

(d) State whether the following statement is True or False:

Programming does NOT involve problem solving: _____ (1 mk)

4. **Observe the illustration shown below**



A learner from **Utumishi Academyl** is sorting data.

(a) Name the structure above (1 mk)

_____

(b) State TWO sorting methods (2 mks)

i) _____

ii) _____

(c) Define searching in programming (2 mks)

_____

_____

(d) Distinguish between list and tuple (1 mk)

_____

_____

5. Mwangi is connecting the keyboard to the CPU Box as shown

(a) Identify the cable used (1 mk) _____

(b) Name TWO input devices (2 mks)

i) _____

ii) _____

(c) State ONE safety precaution when setting up a computer (2 mks)

_____

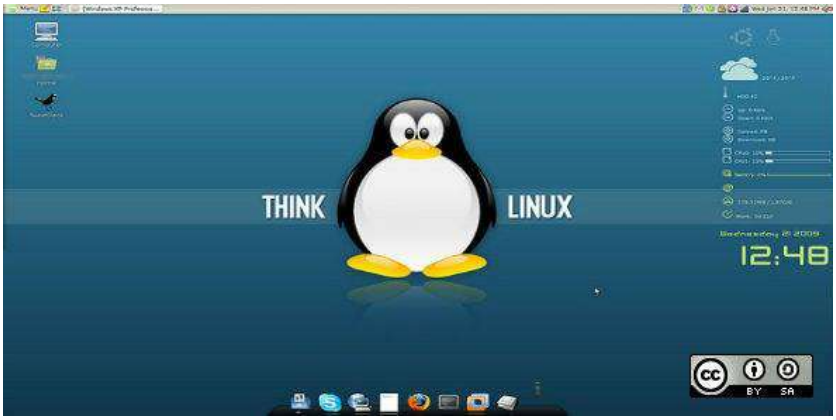
_____

(d) Define a peripheral device (1 mk)

_____

_____

6. A learner in **Garissa School** uses her laptop for daily school assignments.



(a) Name the type of operating system used in her computer (1 mk)

_____

_____

(b) State TWO functions of OS (2 mks)

i) _____

ii) _____

(c) Explain file management (2 mks)

_____

_____

(d) State TRUE or FALSE: OS manages hardware resources _____ **(1 mk)**

SECTION B: (50 MARKS)

7. A school in **Mombasa County** is setting up internet access.

(a) Explain THREE types of networks (3 mks)

i) _____

ii) _____

iii) _____

(b) Describe TWO transmission media used in networking (4 mks)

i) _____

ii) _____

(c) State the functions of the following devices in networking: (3 mks)

Device	**Function**
Router	
Switch	
Modem	

8. Study the flowchart:

Start → Input A,B → Process A+B → Output Sum → End

(a) Convert into pseudocode (4 mks)

(b) State TWO characteristics of an algorithm (2 mks)

i) _____

ii) _____

(c) Distinguish between flowchart and pseudo code (4 mks)

Flow chart	Pseudo code

9. A technician at **Nairobi School ICT lab** is assembling a PC.

(a) Identify FOUR CPU components (4 mks)

i) _____

ii) _____

iii) _____

iv) _____

(b) Explain the fetch-decode-execute cycle (3 mks)

i) _____

ii) _____

iii) _____

(c) Compare RISC and CISC (3 mks)

RISC	CISC

10.

(a) Identify the components of communication (4 mks)

i) _____

ii) _____ 50

iii) _____

iv) _____

(b) State THREE modes of data communication (3 mks)

i) _____

ii) _____

iii) _____

(c) Explain two factors affecting communication (3 mks)

i) _____

ii) _____

11. **Three learners discussed as follows:**

Learner A: "Programs use variables and operators"

Learner B: "Control structures guide program flow"

Learner C: "Data structures store information"

(a) Define variables (2 mks)

_____

_____

(b) Explain control structures (3 mks)

_____

_____

_____

(c) Write a simple Python statement to add two numbers (3 mks)

(d) List TWO types of operators (2 mks)

i) _____

ii) _____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – CORE MATHEMATICS 006 JUNE
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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SECTION A (30 MARKS)

Answer ALL questions in this section.

1. Agoro Sare School canteen sold **120 snacks** consisting of samosas and sausages. The total amount collected from the sales was **KSh 9,000**. A samosa costs **KSh 60** while a sausage costs **KSh 90**.

Using simultaneous equations, determine:

a) The number of samosas sold. (2 Marks)

b) The number of sausages sold. (2 Marks)

2. The population of bacteria in a laboratory culture is given by the equation:

$N=5\times10^{x}$ where N is the number of bacteria.

If the population grows to **50,000 bacteria**:

a) Form an equation involving logarithms to represent the situation. (1 Mark)

b) Determine the value of x. (3 Marks)

3. Evaluate without a calculator: (2 marks)

(a) $\log_3 81$

(b) $\log_5 125$

9. Solve the equations by Factorisation (6 marks)

(a) $2x^2 + 7x + 3 = 0$

(b) $4x^2 + 4x + 1 = 0$

10. Solve for x: (4 marks)

(a) $\log_3 x = 4$

(b) $\log_2(x + 1) = 5$

11. Factorize $x^4 - 81$ completely. State every factor and explain your steps. (3 marks)

12. A mason is making a triangular window. The base is 2 cm more than twice the height, and the area is 90 cm^2. Find the base and the height of the window. (5 marks)

13. Triangle ABC has sides AB = 6 cm, BC = 8 cm and CA = 10 cm. Triangle A'B'C' is similar to ABC with A'B' = 15 cm.

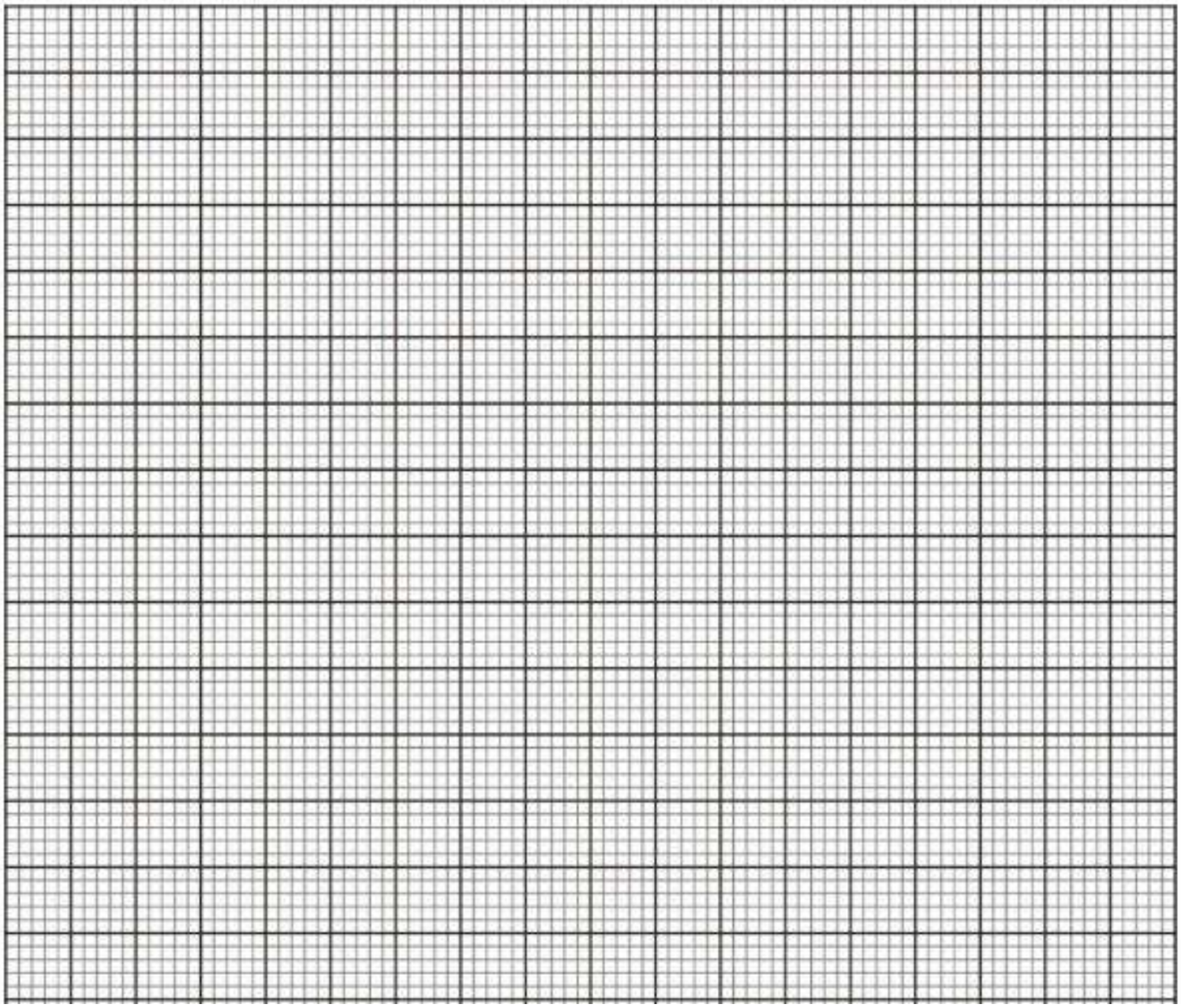
(a) Find the L.S.F. (2 mark)

(b) Find the lengths of B'C' and C'A'. (4 marks)

(c) Calculate the ratio of the areas of the two triangles. (4 marks)

14. The vertices of a quadrilateral are A (2,2), B(4,2), C(5,4), and D(3,4).

(a) Plot ABCD on the provided graph paper. **[3 mks]**



(b) Reflect ABCD in the line y=−x to obtain A'B'C'D'. **[4 mks]**

(c) State the coordinates of A',B',C', and D'. **[3 mks]**

15. Evaluate without using a calculator. (4 Marks)

$$\frac{\left(1\frac{3}{7}-\frac{5}{8}\right)\times\frac{2}{3}}{\frac{3}{4}+1\frac{5}{7}\div\frac{4}{7}of\,2\frac{1}{3}}$$

16. Find the value of **x** **(**3 Marks)

$2^{(x-3)} \times 8^{(x+2)} = 128$

17. Use logarithms and antilogarithms to evaluate (3 Marks)

$$\sqrt{\frac{391 \times 687}{372}}$$

18. The x and y –intercepts of a line are given as -2 and -2 respectively determine the equation of the line (3 Marks)

19. The surface area of two similar bottles are $12cm^2$ and $108cm^2$ respectively. If the larger one has a volume of $810cm^3$. Find the volume of the smaller one. (3 Marks)

20. Given sin (90 - a) = $\frac{1}{2}$, find without using trigonometric tables the value of cos a (2 Marks)

21. The sides of a triangle are in the ratio 3:5:6. If its perimeter is 56 cm, use the Heroes formula to find its area. (4 Marks)

22. A piece of metal has a volume of 20 cm^3 and a mass of 300g. Calculate the density of the metal in kg/m^3. (3 Marks)

23. The angle of elevation of the top of a tree from a point P on the horizontal ground is 24.5°. From another point Q, five metres nearer to the base of the tree, the angle of elevation of the top of the tree is 33.2°. Calculate to one decimal place, the height of the tree. (3 Marks)

24. Solve the equation $\frac{1}{4x} = \frac{5}{6x} - 7$ (2 Marks)

25. The base of a right pyramid is a square of sides 4 cm .the slant edges are all 6cm long. ABCDE

(a) Draw and label a sketch of the solid. (3 Marks)

Draw the net of the pyramid (3 Marks)

(b) Use your net to find

(i) The slant height of the pyramid (2 Marks)

(ii) The total surface area of the pyramid (2 Marks)

26. (a) copy and complete the table below: (2 Marks)

x	0	1	2	3	4	5	6
$y = 2x - 4$							
$y = 12 - 2x$							

(b) (i) On the grid provided and using the same axes, draw the lines $y = 2x + 4$ and $y = 12 - 2x$ (3 Marks)

(ii) Hence use your graphs to solve the simultaneous equations

$\frac{1}{2}x - \frac{1}{4}y = 1$

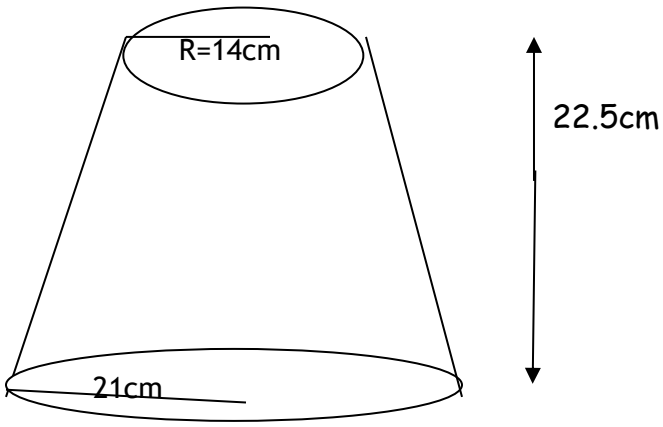
$x + \frac{1}{2}y = 6$ (2 Marks)

(c) By use of substitution method, solve the simultaneous equations;

$6x + 4y = 36$

$x + 3y = 13$ (3 Marks)

27.



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The diagram represents a solid frustum with base radius 21cm and top radius 14cm. The frustum is 22.5cm high and is made of a metal whose density is 3g/cm3 $\pi = 22/7$.

a) Calculate

(i) The volume of the metal in the frustrum. (5 marks)

(ii) The mass of the frustrum in kg. (2 marks)

b)The frustrum is melted down and recast into a solid cube. In the process 20% of the metal is lost. Calculate to 2 decimal places the length of each side of the cube.

(3 marks)

28. Jane is a sales executive earning a salary of Ksh. 20,000 and a commission of 8% for the sales in excess of Ksh 100,000. If in January 2010 she earned a total of Ksh.48, 000 in salaries and commissions. 12

a) Determine the amount of sales she made in that month
(4 Marks)

b) If the total sales in the month of February and March increased by 18% and then dropped by 25% respectively. Calculate

(i) Jane's commission in the month of February (3 Marks)

(ii) Her total earning in the month of March (3 Marks)

29. A surveyor at point S observes the top of a telecommunication mast at an angle of elevation of 22°. He moves 50 m closer to the mast to point T and finds the new angle of elevation is 35°.

(a) Represent this information in a detailed diagram. **[4 mks]**

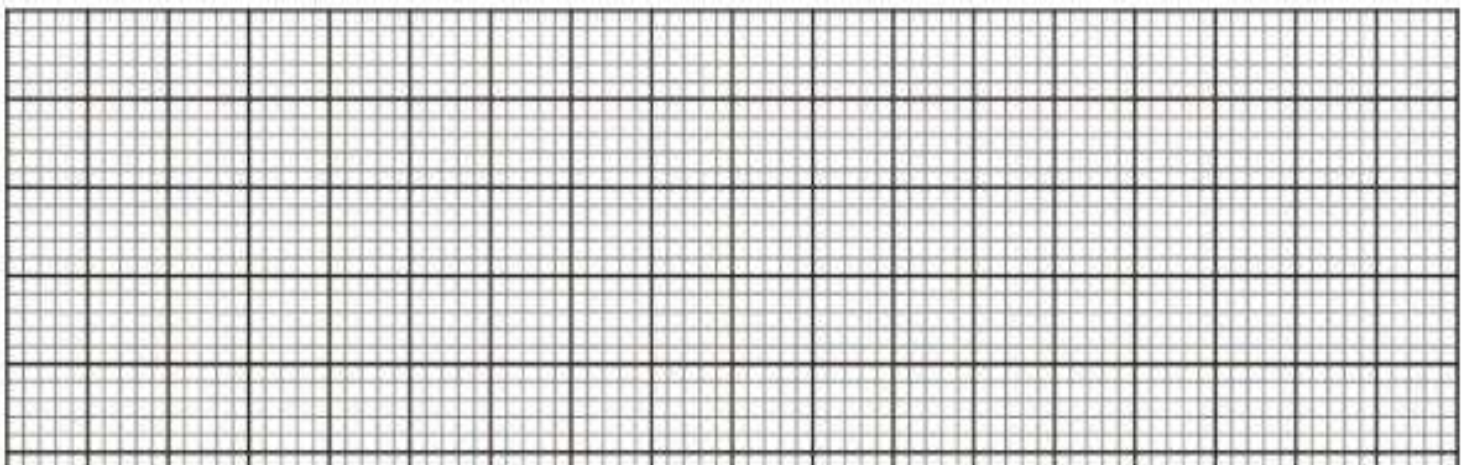
(c) Calculate the height of the mast. **[6 mks]**

30.A farmer has a triangular plot with sides a=150 m, b=170 m, and c=190 m.

(a) Use Heron's formula to calculate the area of the plot. **[6 mks]**

(b) The farmer decides to fence a smaller section that is a regular hexagon with a side length of 10 m. Calculate the area of this hexagon. **[4 mks]**

31. Triangle T has vertices (1,2),(3,2), and (1,5).



(a) Rotate T by 180◦ about the origin to get T1. **[3 mks]**

(b) Reflect T1 in the line x=0 to get T2. **[3 mks]**

(c) Is T2 directly or indirectly congruent to T? Explain your answer by comparing the orientation. **[4 mks]**

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KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – COMMUNITY SERVICE LEARNING

Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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INSTRUCTIONS TO CANDIDATES

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

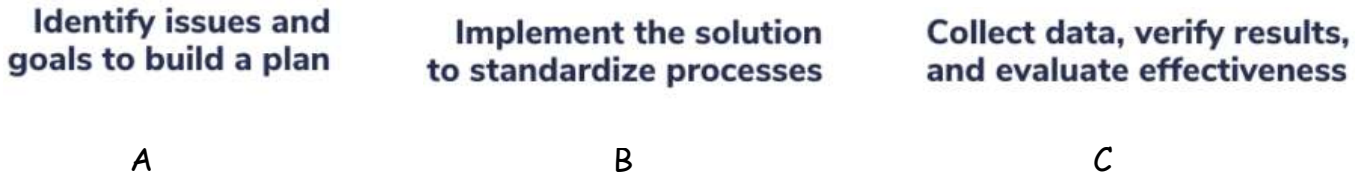
FOR OFFICIAL USE ONLY

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. Learners at **Alliance High School** decided to solve the problem of poor waste disposal in the local Kikuyu market. They used the cycle illustrated below.



(a) **Identify** and **Name** the stages labeled A, B, and C in the diagram above. (3 marks)

A: _____

B: _____

C: _____

(b) **Define** the term "Action Research" as used in this context. (2 marks)

_____

_____

(c) **Explain** the importance of the 'Reflect' stage in this cycle. (2 marks)

_____

_____

2. Grade 10 learners from **Kenya High School** visited a village in **Turkana** and observed the following situation:

(a) **Identify** the category of community need shown in the picture _____ (1 mark)

(b) **Mention** two stakeholders the learners should partner with to address this need. (2 marks)

i. _____
ii. _____

(c) **State** whether the following is **True** or **False**: "Community mapping involves identifying only the problems in a community without looking at the resources." (1 mark)

_____

3. During a tree-planting project in **Narok**, three learners described their leadership approach:

i. **Amani:** "I make decisions only after the whole group votes and agrees."
ii. **Baraka:** "I focus on serving the needs of the team members so they can perform their best."
iii. **Zawadi:** "I change my style depending on whether we are in a crisis or doing routine work."

(a) **Name** the leadership styles described by: (3 marks)

i. Amani: _____
ii. Baraka: _____
iii. Zawadi: _____

(b) **Outline** two qualities of an effective leader in a CSL project. (2 marks)

i. _____
ii. _____

4. Look at the two illustrations below showing a learner interacting with community members in **Machakos**.

A

B

(a) **Distinguish** between the "Public Image" presented in Illustration A and Illustration B. (2 marks)

_____
_____
_____

(b) **Explain** why a positive public image is important for a CSL participant. (2 marks)

i. _____
ii. _____

5. (a) **Match** the term in Column X with its correct description in Column Y. (4 marks)

Column X (Concept) **Column Y (Description)**

Column X (Concept)	Column Y (Description)
1. Intercultural Competence	A. A sense of belonging to a community.
2. Civic Identity	B. Ability to interact effectively with different cultures.
3. Social Cohesion	C. The process of gathering resources for a project.
4. Resource Mobilisation	D. Bonds that bring people in a society together.

(b) **List** three types of communities a learner belongs to. (3 marks)

i. _____
ii. _____
iii. _____

SECTION B: (50 MARKS)

Answer all questions in this section.

6. Learners at **Mama Ngina Girls' Secondary School** want to start a social enterprise to recycle old clothes into school bags for needy students.

(a) **Identify** and **Name** the first stage of the social entrepreneurship process shown above. (1 mark)

_____

(b) In the stage of **Resource Mobilisation**, **describe** three ways the learners can acquire resources that are not locally available. (6 marks)

i. _____
ii. _____
iii. _____

(c) **Develop** a simple low-cost budget for this project using the table below. (4 marks)

Item	Quantity	Estimated Cost (Ksh)	Total
Old Clothes	50 units	0 (Donated)	0
Sewing Thread	10 rolls		
Needles	1 packet		

(d) **Compare** a Social Enterprise and a traditional Commercial Business. (4 marks)

Social enterprise	**Traditional commercial business**

7: While working on a CSL project in **Eldoret**, a conflict arises because some members feel that the group leader is favoring their friends when assigning duties.

(a) **Describe** the situation in the community scenario above where conflict has arisen. (2 marks)

_____

_____ 70

_____

(b) **Explain** two approaches the group can use to solve this conflict peacefully. (4 marks)

i. _____

ii. _____

(c) **Outline** the steps of the **Responsible Decision-Making Process** the group should follow to resolve the issue. (5 marks)

i. _____

ii. _____

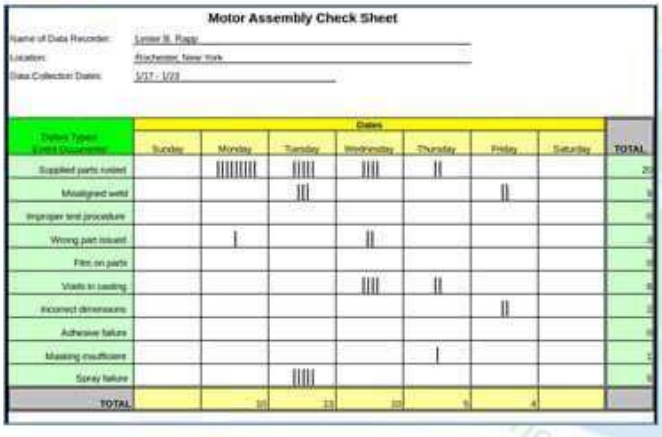
iii. _____

(d) **State** two effects of irresponsible decisions in a community project. (4 marks)

i. _____

ii. _____

8: Study the data collection tool below used by learners in **Mombasa** to track their project progress.



X **Y**

(a) **Name** the two data collection tools shown in the image. (2 marks)

X_____

y _____

(b) **Describe** how "Simple Data Analysis" helps in determining the extent of a community problem. (4 marks)

i. _____
ii. _____

(c) **Explain** why accurate documentation is essential for the "Implementation Process." (4 marks)

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

9: A school in **Garissa** is hosting an intercultural day. Learners are presenting different elements of their culture.

(a) **Identify** and **Name** two cultural elements shown in the image. (2 marks)

i. _____
ii. _____

(b) **Mention** two common stereotypes or misconceptions that can hinder social cohesion in Kenya. (2 marks)

i. _____
ii. _____

(c) **Describe** how a learner can exhibit a "Positive Attitude" when visiting a community with a different culture from their own. (4 marks)

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

(d) **Define** the term "Social Cohesion." (2 marks)

_____

_____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – ELECTRICITY TECHNOLOGY
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

INSTRUCTIONS TO CANDIDATES

1. Write your full name in the space provided above.
2. Indicate your school and stream clearly.
3. Fill in your admission number and the date.
4. The paper is divided into **Section A and Section B**.
5. Attempt **all questions** in both sections.
6. Respond to all questions in **English**.
7. Write all answers in the spaces provided in the question paper.
8. Do not tear or remove any page from this 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. A teacher at **Nairobi School** shows learners the image below:

i

ii

iii

a) Identify TWO uses of electricity shown. (2 marks)

i. _____

ii. _____

iii. _____

b) State ONE importance of electricity in hospitals. (1 mark)

_____

_____

2. Four learners discuss careers:

Amina: "I install wiring in buildings."

Brian: "I repair generators."

Chebet: "I design electronic circuits."

David: "I transmit electricity across regions."

a) Identify the career for EACH learner. (2 marks)

Learner	**Career**

b) Name ONE institution in Kenya where such careers are trained. (1 mark)

_____

3. At a workshop in **Kisumu Polytechnic**, a student is shown:

a) Name the equipment collectively. (1 mark)

_____

b) List TWO items shown. (1 mark)

i. _____
ii. _____
iii. _____

c) State ONE importance of using them. (1 mark)

_____

_____

4. a) Identify THREE components of an electric circuit. (2 marks)

i. _____
ii. _____
iii. _____

b) Define an electric circuit. (1 mark)

_____

_____

5. During a lesson, learners were provided with the following materials

i. Copper wire
ii. Plastic rod
iii. Silicon chip

a) Classify each as conductor, insulator, or semiconductor. (2 marks)

Material	Category

b) Explain ONE property of a conductor. (1 mark)

_____

_____

6. At **Eldoret National Polytechnic**, learners perform an experiment:

a) State Ohm's Law. (1 mark)

_____

_____

S

T

b) Name TWO instruments shown. (1 mark)

S: _____

T: _____

c) State what each measures. (1 mark)

S: _____

T: _____

7. a) Distinguish between primary and secondary cells. (2 marks)

_____

_____

_____

_____

b) State ONE maintenance practice for batteries. (1 mark)

_____

_____

8. a) Define a capacitor. (1 mark)

_____

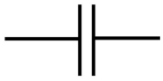
_____

b) State ONE use in appliances. (1 mark)

_____

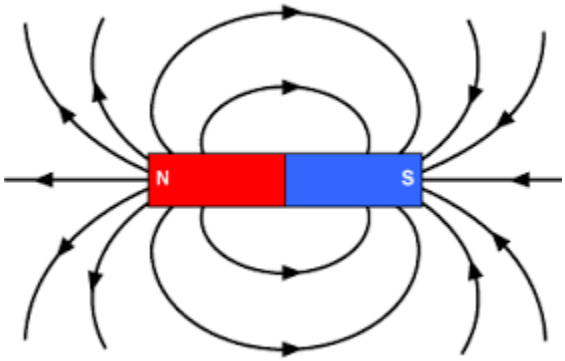
_____

c) Identify the symbol shown. (1 mark)



_____

9. Study the illustration below and use it to answer the questions that follow



a) Describe the pattern observed. (1 mark)

_____

_____

b) State TWO properties of magnets. (2 marks)

i. _____

ii. _____

10. Grade 10 learners observed the following components

Q

R

a) Identify TWO components shown. (2 marks)

Q: _____

: _____

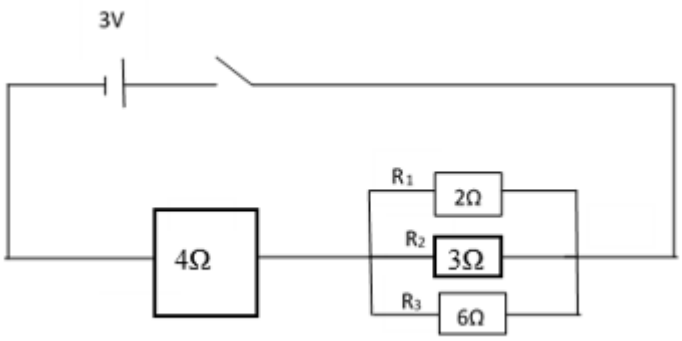
b) State ONE importance of power transmission. (1 mark)

_____

_____

SECTION B (50 MARKS)

11. (a) Study the circuit diagram in **figure below** and answer the following question



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i) Calculate the effective resistance of the circuit. **(3 marks)**

ii) Determine the current through the 3 ohm resistor **(4 marks)**

b) Eight dry cells can be arranged to produce a total e.m.f. of 12v just like a car battery.

i) Determine the e.m.f. of an individual cell **(1 mark)**

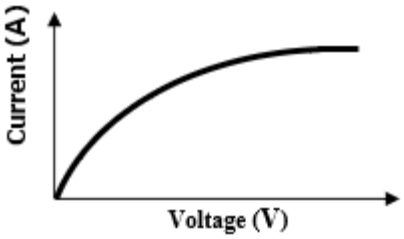
ii) Explain why it is possible to start a car with the lead acid accumulator, but not with the eight dry cells in series. **(2 marks)**

_____

_____

_____

c) For a particular bulb, a series of readings of the current through the bulb for different potential differences across it is taken and plotted as shown in **figure** below.



i) Draw the circuit diagram you would use for the experiment. **(1 mark)**

ii) Explain how the resistance of the bulb changes **(2 marks)**

_____

_____

d) Distinguish between series and parallel circuits. (2 marks)

_____

_____

e) State TWO advantages of parallel circuits. (2 marks)

i. _____
ii. _____
iii. _____

f) Explain how current behaves in series vs parallel. (2 marks)

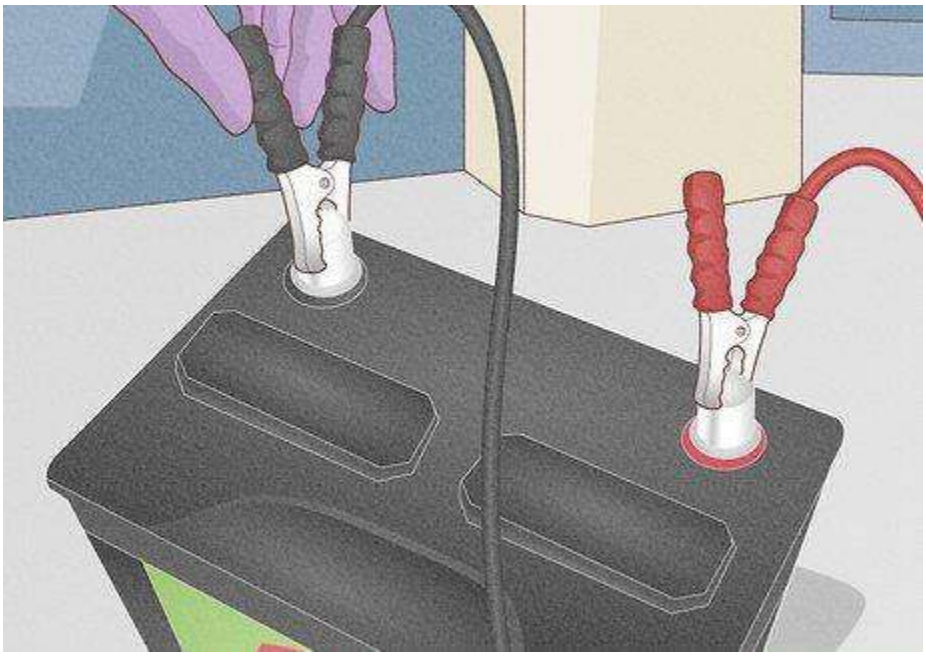
i. _____
ii. _____
iii. _____

g) State Kirchhoff's law (any one). (2 marks)

_____

_____

12. In a garage in **Nakuru**, a technician works on batteries:



a) Describe charging process. (3 marks)

i. _____
ii. _____
iii. _____

b) Explain dangers of overcharging. (2 marks)

i. _____
ii. _____

c) Compare series vs parallel battery connection. (3 marks)

Series battery connection	Parallel battery connection

d) State TWO safe disposal methods. (2 marks)

i. _____
ii. _____

13. Three learners explain:

Otieno: "Stores charge."

Wanjiku: "Stores energy in magnetic field."

Kiptoo: "Used in smoothing circuits."

a) Identify device for each learner. (3 marks)

Learner	Device

b) Compare capacitor and inductor. (3 marks)

Capacitor	Inductor

c) State TWO applications of each. (4 marks)

i. _____
ii. _____

14. At **Kenya Technical Trainers College**, students build a solenoid:

a) Explain principle of electromagnetism. (3 marks)

i. _____
ii. _____
iii. _____

b) Describe how strength is increased. (3 marks)

i. _____
ii. _____
iii. _____

c) State TWO applications. (2 marks)

i. _____
ii. _____

d) Draw/describe field pattern. (2 marks)

15. A house in **Kakamega** has the following:

a) Identify FOUR components of a consumer unit. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

b) State function of each. (4 marks)

Component	Function

c) Explain importance of earthing. (2 marks)

i. _____

ii. _____

16. At **Strathmore School**, learners study semiconductors:

a) Define semiconductor. (2 marks)

_____

_____

b) Explain doping process. (3 marks)

i. _____

ii. _____

iii. _____

c) Distinguish P-type and N-type. (3 marks)

P-type	N-type

d) State TWO applications of diodes. (2 marks)

i. _____

ii. _____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – ENGLISH
Time: 2 Hours

LEARNER'S DETAILS

Name: _____. **School:** _____

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

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

INSTRUCTIONS TO CANDIDATES

1. Fill in your name, school name, your assessment number, date, the school code and signature in the spaces provided above.
2. The paper consists of **five tasks sections: A, B, C, D and E**.
3. Attempt **all questions** in every section.
4. Use **English** to answer all questions.
5. Write your responses in the spaces provided in the paper.
6. Do not detach or remove any page from this paper.

FOR OFFICIAL USE ONLY (EXAMINER'S USE)

SECTION	A	B	C	D	E	% SCORE	EE1	EE2	ME1	ME2	AE1	AE2	BE1	BE2
SCORE RANGE	10 MARKS	20 MARKS	25 MARKS	5 MARKS	20 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														

Answer all questions in this section.

TASK 1: LISTENING AND SPEAKING (5 MARKS)

(Teacher reads the passage twice. Learners listen carefully.)

"In many parts of Kenya, especially in urban areas like Nairobi and Kisumu, young people are embracing technology to solve environmental challenges. Some students from schools such as Lenana School and Kenya High School have developed mobile applications that help communities report illegal dumping of waste. Others organize clean-up exercises and tree-planting activities to improve air quality. These initiatives not only protect the environment but also promote health and safety among residents. However, success depends on cooperation, discipline, and respect for community rules."

Questions:

a) Identify TWO ways students are using technology. (2 marks)

i. _____
ii. _____

b) Mention ONE environmental activity carried out by the youth. (1 mark)

_____

_____

c) State ONE benefit of these initiatives to the community. (1 mark)

_____

_____

d) Pronounce clearly the following words (Teacher assesses): (1 mark)

i. Technology
ii. Environment
iii. Cooperation

TASK 2: COMPREHENSION (5 MARKS)

Brian, a Grade 10 student at Mang'u High School, has always been fascinated by how machines work. From a young age, he enjoyed taking apart old radios, torches, and small household appliances to understand how their components functioned. His curiosity grew stronger when he visited his uncle, an electrical engineer working in Nairobi, who often explained the importance of electricity in modern life.

Inspired by his uncle's career, Brian developed a strong interest in electrical engineering. He dreams of becoming a professional engineer who designs, installs, and maintains electrical systems in homes, industries, and public institutions. During school holidays, Brian spends his time interning at a local electrical workshop where he gains practical experience. Under the guidance of skilled technicians, he learns how to repair faulty appliances, install electrical wiring, test circuits, and observe safety procedures while handling electrical equipment.

Brian has come to appreciate the important role technology plays in transforming careers and improving people's lives. He has learned that technological advancements have created many employment opportunities in sectors such as renewable energy, automation, telecommunications, robotics, and digital communication. He believes that young people who acquire relevant technical skills will be better prepared for the future job market.

Apart from technical knowledge, Brian understands that success in any profession requires discipline, creativity, hard work, honesty, and continuous learning. He regularly reads books, watches educational videos, and attends career talks to improve his understanding of engineering and technology. He also performs well in Mathematics, Physics, and Computer Studies because he knows these subjects are important for his future career.

Brian hopes that after completing his studies, he will secure stable employment, support his family,

and contribute to the development of Kenya. He dreams of participating in projects that provide affordable electricity to rural communities, promote clean energy solutions, and improve the quality of life for many people. He believes that through dedication, innovation, and responsible use of technology, young people can help build a prosperous nation.

Questions:

a) What career does Brian want to pursue? (1 mark)

_____

b) Who inspired Brian? (1 mark)

_____

c) State ONE skill Brian is learning during his internship. (1 mark)

_____

d) Mention TWO qualities needed for success according to the passage. (1 mark)

_____

_____

e) Give a suitable title for the passage. (1 mark)

_____

TASK 3: CLOZE TEST (5 MARKS)

Fill in the blanks with appropriate words:

Protecting the environment is a shared _____ (1) of all citizens. People should avoid cutting down trees without _____ (2) them. Clean surroundings help prevent the spread of _____ (3) and improve public health. Governments, schools, and communities must work _____ (4) to promote environmental conservation. Every individual has a _____ (5) to protect natural resources for future generations.

TASK 4: CONVERSATION (5 MARKS)

A student from **Alliance High School** is visiting **Mombasa** for the first time.

Complete the following Dialogue below:

Tourist: Good afternoon. Excuse me, could you direct me to Fort Jesus?
Resident: _____ (1)

Tourist: Thank you. Is it safe to walk there?
Resident: _____ (2)

Tourist: How long will it take me to get there?
Resident: _____ (3)

Tourist: I appreciate your help.
Resident: _____ (4)

a) Complete the dialogue appropriately using polite expressions. (4 marks)
b) Identify ONE etiquette rule demonstrated in the conversation. (1 mark)

_____

TASK 5: GRAMMAR (10 MARKS)

a) Identify the part of speech of the underlined words: (2 marks)

i. The athlete ran **swiftly** during the race. :_____
ii. They attended a **cultural** ceremony :_____

b) Rewrite the sentences using the correct tense: (2 marks)

i. She (play) netball yesterday.

_____

ii. They (install) solar panels next month.

_____

c) Fill in with appropriate prepositions: (2 marks)

i. He is passionate _____ technology.
ii. She is responsible _____ organizing the event.

d) Join the sentences using a suitable conjunction: (2 marks)

The team trained hard. They lost the match.

_____
_____

e) Change into passive voice: (2 marks)

The nurse administered the medicine.

_____
_____

SECTION B (50 MARKS)

TASK 5: GRAMMAR (30 MARKS)

a) Error Identification and Correction (6 marks)

Rewrite the sentences correctly:

i) She don't understand the instructions.

_____

ii) The informations were not accurate.

_____

iii) He has went to Nairobi.

_____

b) Word Formation (6 marks)

Complete using correct forms:

i) Technology has greatly _____ (transform) communication.
ii) She is the _____ (intelligent) student in the class.
iii) His _____ (decide) was influenced by his parents.

c) Degrees of Comparison (4 marks)

i) This road is _____ (wide) than the other.
ii) Mount Kenya is the _____ (high) mountain in Kenya.

d) Reported Speech (4 marks)

Change into indirect speech:

He said, "I will travel to Kisumu tomorrow."

_____

e) Articles and Determiners (4 marks)

Fill in the blanks:

i) She bought _____ umbrella.
ii) He is _____ honest man.

f) Sentence Transformation (6 marks)

i) Rewrite in question form:

You are attending the meeting.

_____

ii) Rewrite in negative form:

They have completed the project.

_____

iii) Combine into one sentence:

She studied hard. She passed the exam.

_____

TASK 6: WRITING – COMPOSITION (20 MARKS)

Write a **well-organized composition (300–350 words)** on ONE topic:

Choose from ONE theme:

1. **Environment:**
   Discuss the role of young people in protecting the environment in Kenya.
2. **Technology:**
   Explain how technology has changed communication and learning among students.
3. **Travel:**
   Narrate a journey you took and the lessons you learned.
4. **Careers:**
   Describe your dream career and the steps you will take to achieve it.
5. **Health and Safety:**
   Explain how schools can promote health and safety among learners.
6. **Income:**
   Discuss different sources of income for young people in Kenya.

_____

_____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – GENERAL SCIENCE
Time: 2 Hours

LEARNER'S DETAILS

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

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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 PAPER.
8. Do NOT remove any page from this question paper.

FOR OFFICIAL USE ONLY

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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 Nairobi Science Senior School are conducting an investigation in the laboratory.

   Aisha Listed: Cells, human body systems, ecology, genetics, microorganisms.

   Brian Listed: Matter, acids and bases, elements and compounds, laboratory analysis.

   Kevin Listed: Electricity, energy, waves, magnetism, light.

a) Identify ONE branch of General Science represented by each learner. (3 marks)

Name of learner	**Aisha**	**Brian**	**Kevin**

Branch of general science			

b) State ONE importance of General Science in daily life. (1 mark)

_____

_____

c) Name ONE career related to the activities in the laboratory. (1 mark)

_____

_____

d) Define the term "General Science". (1 mark)

_____

_____

2. A Grade 10 class at **Kisumu High School** observes the image above.

a) Identify TWO differences between plant and animal cells shown. (2 marks)

_____

_____

b) Name TWO organelles visible in both cells. (2 marks)

_____

_____

c) State ONE function of the nucleus. (1 mark)

_____

_____

d) What instrument is used to view such detailed images? (1 mark)

_____

_____

3. A ball is released from rest at the top of a hill and rolls down with increasing speed.

a) Define acceleration. (1 mark)

_____

_____

b) Identify the type of motion shown. (1 mark)

_____

_____

c) State ONE reason why the speed of the ball increases. (1 mark)

_____

_____

d) Mention TWO real-life examples of linear motion. (2 marks)

_____

_____

e) State ONE safety measure in experiments involving moving objects. (1 mark)

_____

_____

4. A teacher at **Mombasa High School** displays selected elements.

a) Classify sodium and magnesium into their chemical families. (2 marks)

_____

_____

b) Name the group of chlorine. (1 mark)

_____

_____

c) State ONE property of noble gases. (1 mark)

_____

_____

d) Explain why sodium is reactive. (2 marks)

_____

_____

5. A student is seen breathing heavily after a 100m race.

a) Name the type of respiration occurring in muscles during intense exercise. (1 mark)

_____

_____

b) Define respiration. (1 mark)

_____

_____

c) State ONE product of anaerobic respiration. (1 mark)

_____

_____

d) Explain oxygen debt. (2 marks)

_____

_____

e) State ONE importance of respiration in humans. (1 mark)

_____

_____

6. A student tests substances using universal indicator.

a) Identify TWO acidic substances in the picture. (2 marks)

_____

_____

b) State the colour of acid in universal indicator. (1 mark)

_____

_____

c) Name ONE salt formed in neutralisation. (1 mark)

_____

_____

d) State ONE use of salts in agriculture. (1 mark)

_____

_____

e) Define a base. (1 mark)

_____

_____

SECTION B: (50 MARKS)

7. A stone is dropped vertically from a bridge and falls freely to the ground.

a) Define free fall motion. (2 marks)

_____

_____

b) State TWO effects of gravity on falling objects. (2 marks)

_____

_____

c) Explain why objects fall at different speeds in air. (2 marks)

_____

_____

d) State TWO safety measures when carrying out free fall experiments. (2 marks)

_____

_____

e) Calculate the velocity of a body after 5 seconds if acceleration due to gravity is 10 m/s^2. (2 marks)

8. Two children are seated on opposite sides of a seesaw.

a) Define moment of a force. (2 marks)

_____

_____

b) Explain how balance is achieved on a seesaw. (2 marks)

_____

_____

c) State TWO applications of moments in daily life. (2 marks)

_____

_____

d) Distinguish between clockwise and anticlockwise moments. (2 marks)

_____

_____

_____

_____

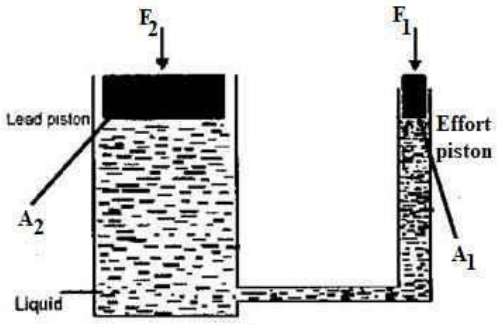
9.

a. Give a reason why water is not a suitable liquid for use in a barometer

_____

_____

b. The figure below is a simplified diagram of a hydraulic jack. The cross selection area A_2 of the load piston is 25 times the A_1 of the effort piston, A_2 = 25N. F_1 is the force applied (Effort) while F_2 represents A_1 the load.



i. Write an expression for the pressure exerted on the liquid by the effort piston.

A mechanic applies a force of 100N on the effort piston while raising the rear part of a car.

ii. Determine the maximum load that can be raised (2 marks)

iii. Give a reason why gas is not suitable for use in place of the liquid in the jack

_____

_____

10. A student observes magnesium reacting rapidly with oxygen.

a) Define rate of reaction. (2 marks)

_____

_____

b) State TWO factors affecting rate of reaction. (2 marks)

_____

_____

c) Explain the role of catalyst in reactions. (2 marks)

_____

_____

d) Describe ONE experiment to show effect of temperature on reaction rate. (2 marks)

_____

_____

e) State ONE industrial application of reaction rates (Haber process). (2 marks)

_____

_____

11. a) Define chemical bond. (2 marks)

_____

_____

b) Identify TWO types of bonds shown. (2 marks)

_____

_____

c) Explain ionic bonding using sodium chloride as an example. (2 marks)

_____

_____

d) State TWO properties of ionic compounds. (2 marks)

_____

_____

e) Explain ONE use of graphite or diamond based on structure. (2 marks)

_____

_____

12. A health officer in Nairobi reports an outbreak of flu and food spoilage cases.

a) Identify THREE types of microorganisms shown. (3 marks)

_____

_____

_____

b) State TWO modes of transmission of microorganisms. (2 marks)

_____

_____

c) Explain ONE method of preventing infections. (2 marks)

_____

_____

d) State TWO economic importance of microorganisms. (2 marks)

_____

_____

e) Name ONE disease caused by viruses. (1 mark)

_____

_____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – GEOGRAPHY
Time: 2 Hours 30 Minutes

LEARNER'S DETAILS

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

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

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

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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.
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SCORE RANGE	45 MARKS	35 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 (45 MARKS)

Answer ALL questions in this section.

1. Three learners visited an industrial site and made the following observation:

   Amina: "This is small-scale informal industry using local materials."

   Peter: "It creates employment for many youths."

   John: "It is part of Kenya's industrial sector."

Tasks:

a) Identify the type of industry shown. _____ (1 mark)

b) Name TWO activities seen in the picture. (2 marks)

X

Y

X: _____

Y: _____

c) State ONE importance of Jua Kali industries in Kenya. (1 mark)

_____

_____

d) List ONE challenge facing such industries. (1 mark)

_____

_____

e) Define the term industry. (1 mark)

_____

_____

2. A Geography class observes renewable energy systems in Kenya.

a) Identify TWO renewable energy sources shown. (2 marks)

S

T

S: _____

T: _____

b) State ONE advantage of solar energy. (1 mark)

_____

_____

c) Explain why Northern Kenya is suitable for wind energy. (2 marks)

_____

_____

d) Name ONE country where geothermal energy is developed. (1 mark)

_____

3. Workers are extracting a mineral for cement production.

a) Name the mineral being mined. _____ (1 mark)

b) State TWO uses of the mineral. (2 marks)

i. _____

ii. _____

c) Explain ONE environmental effect of mining. (2 marks)

_____

_____

d) State ONE method of mining shown below. (1 mark)

_____

4. Three learners describe a certain agricultural practice:

Mary: "Crops are grown without soil."

Kevin: "Water is recycled in pipes."

Faith: "It saves space in towns."

a) Name the type of agriculture described above. _____ (1 mark)

b) State TWO advantages of this farming method. (2 marks)

i. _____

ii. _____

c) Explain ONE challenge facing urban farming. (2 marks)

_____

_____

d) Define agriculture. (1 mark)

_____

_____

5. A disaster management officer explains earthquake damage.

a) Define an earthquake. (1 mark)

_____

_____

b) Identify TWO effects of earthquakes. (2 marks)

i. _____

ii. _____

c) State ONE scale used to measure earthquakes. (1 mark)

_____

d) Suggest TWO disaster preparedness measures. (2 marks)

i. _____

ii. _____

6. A student uses a mobile phone map application.

a) Name the technology shown. _____ (1 mark)

b) State TWO uses of GIS in Geography. (2 marks)

i. _____

ii. _____

c) Explain ONE importance of GPS in daily life. (2 marks)

_____

_____

d) Define GIS. (1 mark)

_____

_____

SECTION B: (50 MARKS)

7. A field study group from **Ulanda Senior School** visited the industrial area.

a) Name TWO types of industries shown. (2 marks)

M

N

M: _____ N: _____

b) Explain THREE factors influencing location of industries. (3 marks)

i. _____
ii. _____
iii. _____

c) Describe TWO problems facing industries in Kenya. (2 marks)

i. _____
ii. _____

d) Suggest TWO solutions to industrial challenges. (2 marks)

i. _____
ii. _____

e) Distinguish between cottage and large-scale industry. (1 mark)

_____
_____

8. Kenya Power engineers discuss energy production during a school tour.

a) Name the type of energy shown. _____ (1 mark)
b) Explain TWO advantages of renewable energy. (2 marks)

i. _____
ii. _____

c) Describe how geothermal energy is produced. (3 marks)

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

d) State TWO challenges of energy production in Kenya. (2 marks)

i. _____
ii. _____

e) Give ONE example of wind energy project in Kenya. (2 marks)

i. _____

ii. _____

9. A comparative geography lesson was conducted.

Q

R

a) Name TWO minerals shown. (2 marks)

Q: _____

R: _____

b) Compare mining in Botswana and Australia. Give 2 differences. (2 marks)

Botswana	**Australia**

c) Explain THREE effects of mining on environment. (3 marks)

i. _____

ii. _____

iii. _____

d) Suggest TWO ways of rehabilitating mined land. (2 marks)

i. _____

ii. _____

e) Define mining. (1 mark)

_____

_____

10. Grade 10 learners watched a video clip on earth processes during a geography lesson

a) Identify the two landforms. (2 marks)

R

S

R: _____

S: _____

b) Distinguish between volcanic and fold mountains. (2 marks)

Volcanic mountain	Fold mountain

c) Explain THREE causes of vulcanicity. (3 marks)

i. _____
ii. _____
iii. _____

d) State TWO benefits of volcanic activity. (2 marks)

i. _____
ii. _____

e) Name ONE fold mountain range in the world. (1 mark) _____

11. Farmers are discussing productivity.

a) Identify TWO types of agriculture shown. (2 marks)

E

F

E: _____ F: _____

b) Explain THREE challenges facing agriculture in Kenya. (3 marks)

i. _____

ii. _____

iii. _____

c) Suggest TWO strategies to improve agriculture. (2 marks)

i. _____

ii. _____

d) State ONE importance of agriculture. (1 mark)

_____

_____

e) Define food security. (2 marks)

_____

_____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – HOMESCIENCE

Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. Three learners at **Kenya High School** in **Nairobi** are discussing their future careers.

- **Moraa:** "I want to work in a hospital ensuring patients eat the right nutrients to recover."
- **Otieno:** "I want to manage large-scale food production in a five-star hotel in **Kisumu**."
- **Wanjiku:** "I want to study the chemical composition of food to improve shelf life."

(a) **Identify** the career Moraa is describing. _____ (1 mark)

(b) **List** two other careers related to Foods and Nutrition not mentioned by the learners. (2 marks)

i. _____.
ii. _____.

2. (a)

Identify the layouts shown above as **X** and **Y**. (2 marks)

X: _____ Y: _____

(b) **State** whether the following statement is **TRUE** or **FALSE**:

"An Island kitchen layout is ideal for very small, narrow rooms." [_____] (1 mark)

3. (a) **Distinguish** between **Food Spoilage** and **Food Poisoning** based on the illustrations. (2 marks)

Food spoilage	Food poisoning

(b) **Mention** three signs of food spoilage you can see or smell. (3 marks)

i. _____
ii. _____
iii. _____

4. (a)

Classify the laundry items shown below. (2 marks)

_____ _____

(b) **Outline** the correct procedure for rinsing a white cotton garment. (3 marks)

i. _____

ii. _____

iii. _____

5. (a)

Identify which stitch is **Temporary** and which is **Permanent by their names**. (2 marks)

Temporary: _____ Permanent: _____

(b) **Matching:** Match the tool to its function. (4 marks)

Tool	**Function**
i. Tracing wheel	A. Measuring body parts
ii. Thimble	B. Transferring markings
iii. Tape measure	C. Protecting the finger
iv. Seam ripper	D. Removing unwanted stitches

6. (a) **Explain** why personal hygiene is critical for a Grade 10 learner during puberty. (3 marks)

(b) **Define** the term "Dignity Kit." (2 marks)

_____

_____

SECTION B (50 MARKS)

Answer all questions.

7. Achieng from **St. Mary's Aboke** is preparing a meal for her family in **Nakuru**. She decides to cook beef by simmering it in a small amount of liquid for a long time and baking a cake in an oven.

(a)

Name the two methods of cooking Achieng is using. (2 marks)

i. _____

ii. _____

(b) **Compare** Moist Heat and Dry Heat methods of cooking. (4 marks)

Moist Heat	Dry Heat

(c) **Describe** the preparation process of "Dicing" vegetables. (2 marks)

i. _____

ii. _____

iii. _____

8. (a)

Identify and **state the use** of any three items found in the kit shown. (6 marks)

X

Y

Z

Item	**Use**

X	
Y	
Z	

(b) **Explain** the First Aid procedure for a **Scald** injury. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

9. (a)

Categorize the houses shown below. (2 marks)

	

(c) **Describe** the care of the cleaning equipment shown in the images. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(c) **Explain** the interrelationship between the Kitchen and the Dining Room. (3 marks)

i. _____

ii. _____

iii. _____

10. (a) **Classify** the following foods into their respective nutrient groups: (3 marks)

i. Cassava: _____
ii. Beans: _____
iii. Spinach: _____

(b) **Discuss** the causes and management of **Scurvy**. (4 marks)

Causes

i. _____

ii. _____

Management

i. _____

ii. _____

11. (a) **Identify** the seams labelled **A** and **B**. (2 marks)

A: _____ B: _____

(b) **Outline** four qualities of a well-made seam. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(c) **Describe** how to manage fullness using **Gathers**. (3 marks)

i. _____

ii. _____

iii. _____

12. (a)

Explain how a learner can identify a cotton fibre using the burning test. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(b) **Mention** three rights of a consumer when buying goods in a shop in **Eldoret**. (3 marks)

i. _____

ii. _____

iii. _____

(c) **Identify** the part of the sewing machine that holds the thread inside the machine. (1 mark)

_____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – INFORMATION COMMUNICATION TECHNOLOGY

Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. Three learners from **Alliance High School** are visiting a local supermarket in **Kikuyu town** to observe ICT in action.

   Kendi: "I see the cashier scanning barcodes to get prices instantly."

   Juma: "The manager is using a system to track how many packets of milk are left in the store."

   Sifa: "I noticed a security camera at the entrance connected to a monitor in the back office."

(a) Match the learners' observations to the correct ICT application area: (3 marks)

i. Kendi is observing: Point of Sale
ii. Juma is observing: Inventory Control
iii. Sifa is observing: Surveillance

(b) **Identify and Name** the components of the ICT infrastructure shown below: (4 marks)

i

ii

iii

iv

i. _____

ii. _____

iii. _____

iv. _____

(c) state whether the following statement is **True or False:** (3 marks)

i. ICT can be used to solve community water shortages through remote sensor monitoring. [_____]

ii. Technology refers only to computers and excludes mobile phones. [_____]

iii. Information is the result of processing raw data. [_____]

2. (a) **Define** the term "Operating System" as used in digital devices. (2 marks)

_____

_____

(b) **Identify** the following Operating System logos and **Name** the device type they primarily run on (Mobile or Desktop): (4 marks)

M 

N 

i. M: _____ Device Type: _____

ii. N: _____ Device Type: _____

(c) **Distinguish** between a **GUI (Graphical User Interface)** and a **Command Line Interface (CLI)** based on the visuals below. (4 marks)

GUI	**CLI)**

119

3. (a) **Identify** the following icons found in a Word Processing ribbon: (3 marks)

X

y

Z

i. **Icon X:** _____

ii. **Icon Y:** _____

iii. **Icon Z:** _____

(b) **Outline** the steps taken by a learner at **Maseno School** to insert a Table of Contents automatically in a document. (4 marks)

i. _____.

ii. _____.

iii. _____.

iv. _____.

(c) **Mention** three formatting features that can be applied to a paragraph to make it professional. (3 marks)

i. _____.

ii. _____.

iii. _____.

SECTION B (50 MARKS)

4. A student in **Lodwar** wants to set up an internet connection to attend an online class. He has the following equipment on his desk:

   (a) **Identify** the two methods of connection shown in the picture. (2 marks)

i

ii

i. _____.

ii. _____.

(b) **Explain** the function of an **ISP** in this scenario. (3 marks)

i. _____.

ii. _____.

iii. _____.

(c) **Compare** a **Web Browser** and a **Search Engine** as illustrated below: (4 marks)

Web browser	**Search engine**

(d) **Describe** two positive impacts of the internet on the society in Kenya. (4 marks)

i. _____.

ii. _____.

(e) **Name** the part of the email address highlighted: learner@school.ac.ke (2 marks)

i. _____.

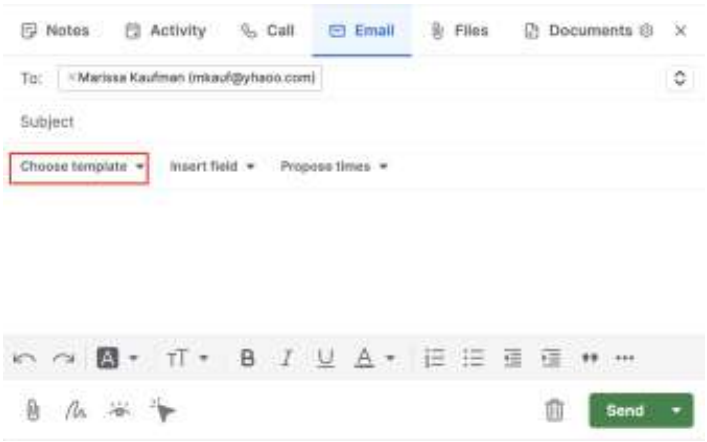
ii. _____.

5. (a) **Identify and Name** the online platforms represented by these icons: (4 marks)

A

B

C



D

A. : _____

B. : _____

C. : _____

D. : _____

(b) **Explain** how Artificial Intelligence (AI) is currently being used in digital communication platforms like Gmail or WhatsApp. (4 marks)

i. _____.

ii. _____.

iii. _____.

iv. _____.

(c) **Outline** the procedure for creating a collaborative document on **Google Docs** for a group project. (4 marks)

i. _____.

ii. _____.

iii. _____.

iv. _____.

(d) **State** three advantages of using video conferencing for school meetings in Kenya. (3 marks)

i. _____.

ii. _____.

iii. _____.

6. (a) **Identify** the healthy ergonomic practice shown in the diagram below: (4 marks)

i. Eye level should be: _____

ii. Back should be: _____

iii. Feet should be: _____

iv. Wrist position: _____

(b) **Identify and Name** the DTP features in the newsletter layout below: (4 marks)

i. Large letter at the start: _____

ii. The title of the newsletter: _____

iii. Text arrangement style: _____

iv. Text flowing around the photo: _____

(c) **Define** "Netiquette" and give one example of bad netiquette in an online forum. (4 marks)

_____

_____

(d) **Explain** two ways ICT users in Kenya can conserve the environment through "Green ICT." (4 marks) 123

i. _____.

ii. _____.

(e) **Distinguish** between **Open Source** and **Non-Open Source** DTP software. (4 marks)

Open source	**Non open source**

CHETI CHA ELIMU YA MSINGI KENYA (KCBE)
TATHMINI YA SHULE YA UPILI YA JUU
KAZI YA ZIADA YA AGOSTI, 2026
GREDI YA 10 - KISWAHILI
Muda: Saa 2

TAARIFA ZA MWANAFUNZI

Jina: _____ Shule: _____

Nambari ya Tathmini: _____ Tarehe: _____

Nambari ya Shule: _____ Sahihi: _____

MAELEKEZO KWA WANAFUNZI

1. Andika jina lako katika nafasi ulizopewa hapo juu.
2. Andika jina la shule yako na darasa lako katika nafasi ulizopewa.
3. Andika nambari yako ya usajili na tarehe ya tathmini katika nafasi ulizopewa.
4. Karatasi hii ina sehemu mbili: A na B.
5. Jibu maswali yote katika sehemu A na sehemu B.
6. Jibu maswali kwa lugha ya Kiswahili.
7. Majibu yote LAZIMA yaandikwe katika nafasi ulizopewa kwenye karatasi hii.
8. USIONDOE ukurasa wowote kutoka kwenye karatasi hii ya maswali.

ALAMA ZA MWANAFUNZI

SEHEMU	SEHEMU A	SEHEMU B	ASILIMIA (%)	KUZ 1	KUZ 2	KUF 1	KUF 2	KUK 1	KUK 2	CHI 1	CHI12
KIWANGO CHA ALAMA	ALAMA 30	ALAMA 50		90–100	75–89	58–74	41–57	31–40	21–30	11–20	1–10
POINTI			8 POINTI	7 POINTI	6 POINTI	5 POINTI	4 POINTI	3 POINTI	2 POINTI	1 POINTI	
JUMLA YA ALAMA ZA MWANAFUNZI											

SEHEMU YA KWANZA: (ALAMA 30)

Swali la 1: Kusikiliza na Kuzungumza (Alama 10)

(Mwalimu atamsomea mwanafunzi kifungu kifupi kisha mwanafunzi ajibu maswali yafuatayo kwa sauti/maandishi)

(a) Taja sauti mbili zinazopatikana katika maneno haya: **Bwawa**, **Mbwa**. (Alama 2)

i. _____

ii. _____

(b) Wewe ni kiongozi wa wanafunzi katika shule ya **Kiriaini**. Unatakiwa kuwashawishi wenzako kuhusu umuhimu wa kutunza mazingira. Toa hoja mbili utakazotumia. (Alama 4)

i. _____

ii. _____

(c) **Mjadala:** "Matumizi ya simu shuleni yana faida kuliko hasara." Toa msimamo wako na sababu moja. (Alama 2)

_____

_____

_____

(d) Tofautisha kati ya sauti **/b/** na **/mb/** kwa kutoa mifano miwili ya maneno. (Alama 2)

sauti **/b/**	sauti **/mb/**
Mifano	

Swali la 2: Ufahamu wa Kusoma (Alama 10)

Soma kifungu kifuatacho kisha ujibu maswali.

Katika mji wa Eldoret, kulikuwa na kijana mmoja kwa jina Zuma aliyekuwa akisoma katika Shule ya Upili ya Strathmore. Zuma alikuwa mwanafunzi mwenye bidii sana katika masomo yake na alipenda kutumia muda wake mwingi kusoma vitabu mbalimbali. Kati ya masomo yote aliyoyasoma, Kiswahili ndicho kilichomvutia zaidi. Alifurahia kusoma hadithi, riwaya, tamthilia, ushairi na aina nyingine za fasihi simulizi. Kila alipokuwa na muda wa ziada baada ya masomo, angeonekana katika maktaba ya shule akisoma au kutafuta vitabu vipya vya kuongeza maarifa yake.

Siku moja, alipokuwa akifanya utafiti kuhusu tamaduni mbalimbali za jamii za Kenya, aligundua kuwa maktaba ya shule ilikuwa na vitabu vichache sana vya lugha ya Kiswahili. Vitabu vingi vilivyokuwapo vilikuwa vya masomo mengine kama vile Sayansi, Hisabati na Jiografia. Hali hiyo ilimfanya ahuzunike kwa sababu wanafunzi wengi walikosa nafasi ya kusoma vitabu vya ziada vya Kiswahili ambavyo vingewasaidia kuboresha lugha yao, kuongeza msamiati na kukuza uwezo wao wa kufikiri kwa kina.

Baada ya kutafakari kwa muda, Zuma aliamua kutafuta suluhisho la tatizo hilo. Alizungumza na walimu wa Kiswahili pamoja na uongozi wa shule kuhusu umuhimu wa kuongeza idadi ya vitabu vya Kiswahili

katika maktaba. Walimu walimpongeza kwa wazo lake na wakamshauri kuanzisha kampeni ya kuchangisha vitabu kutoka kwa wazazi, wanafunzi wa zamani wa shule hiyo na wanajamii waliokuwa tayari kusaidia elimu.

Zuma alianzisha kamati ya wanafunzi iliyokuwa na jukumu la kuhamasisha uchangiaji wa vitabu. Wanafunzi walitengeneza mabango, waliandika matangazo na hata kutumia mitandao ya kijamii kuwafikia watu wengi zaidi. Kampeni hiyo ilipata mafanikio makubwa kuliko walivyotarajia. Baada ya miezi michache, mamia ya vitabu vya Kiswahili vilikuwa vimekusanywa na kuongezwa katika maktaba ya shule.

Kutokana na juhudi hizo, wanafunzi wengi walipata hamu ya kusoma vitabu vya Kiswahili. Matokeo ya somo hilo yakaanza kuimarika, na shule ikajulikana kwa kuwa na mojawapo ya maktaba bora zaidi katika eneo hilo. Zuma alitambua kuwa mtu mmoja mwenye maono na dhamira anaweza kuleta mabadiliko makubwa katika jamii yake. Kitendo chake kilikuwa mfano mzuri wa uongozi, uwajibikaji na kujitolea kwa maendeleo ya elimu.

(a) Eleza jinsi tabia ya Zuma ilivyochangia kuboresha elimu katika shule yake. (Alama 1)

_____

_____

(b) Unafikiri ni kwa nini wanafunzi wengi hawakuwa wakisoma vitabu vya Kiswahili kabla ya kampeni ya Zuma? Toa sababu mbili. (Alama 2)

_____

_____

(c) Kama ungekuwa mkuu wa shule hiyo, ungechukua hatua gani nyingine ili kukuza utamaduni wa usomaji wa vitabu miongoni mwa wanafunzi? (Alama 2)

_____

_____

(d) Je, kampeni ya Zuma ilikuwa na manufaa gani kwa wanafunzi na shule kwa ujumla? Toa hoja mbili. (Alama 2)

_____

_____

(e) Ni maadili gani mawili yanayojitokeza kutoka kwa Zuma? Fafanua. (Alama 2)

_____

_____

(f) Kwa maoni yako, ni changamoto zipi ambazo Zuma angeweza kukumbana nazo wakati wa kuendesha kampeni ya kuchangisha vitabu? (Alama 2)

_____

_____

(g) Ikiwa shule yako ingekuwa na tatizo kama hilo, ungewezaje kushirikiana na wenzako kulitatua? (Alama 2)

_____

_____

(h) Tathmini kauli hii: "Mtu mmoja anaweza kuleta mabadiliko makubwa katika jamii." Tumia mifano kutoka kwenye kifungu kuthibitisha jibu lako. (Alama 3)

_____

_____

_____

_____

(i) Eleza ujumbe mkuu wa kifungu hiki na umuhimu wake kwa vijana wa leo. (Alama 3)

_____

_____

(j) Andika muhtasari wa kifungu hiki kwa sentensi tatu ukionyesha tatizo, suluhisho na matokeo yake. (Alama 4)

_____

_____

(c) Toa kisawe cha neno: Kuanzisha. (Alama 1)

_____

_____

Swali la 3: Jaribio la Kujaza Mapengo **(Alama 10)**

Jaza pengo kwa neno lifaalo zaidi.

Hapo zamani za kale, palikuwa (1)_____ mzee mmoja aliyekuwa na hekima sana. Aliishi katika kijiji (2)_____ Kilgoris. Kila (3)_____ vijana walipokuwa na matatizo, walimtembelea (4)_____ ushauri. Mzee huyo (5)_____ aliwafunza vijana (6)_____ bidii na heshima. Alisema kuwa (7)_____ ni siri ya mafanikio. Siku hizi, (8)_____ wengi wamesahau maadili _____(9). Ni muhimu _____(10) lugha yetu na utamaduni wetu.

SEHEMU YA PILI: SARUFI NA INSHA (ALAMA 50)

Swali la 4: Sarufi na Matumizi ya Lugha (Alama 30)

(a) **Aina za Maneno:**

Tambua aina ya maneno yaliyopigiwa mstari. (Alama 4)

"**Yeye** (i) _____ alikimbia **haraka** (ii) _____ kuelekea **shuleni** (iii) _____ na **yule** (iv) _____ rafiki yake."

(b) **Ngeli za Nomino:** Weka nomino hizi katika ngeli zao. (Alama 4)

i. Mtoto: _____
ii. Kiti: _____
iii. Meza: _____
iv. Ufunguo: _____

(c) **Nyakati na Ukanushaji:**

Kanusha sentensi ifuatayo katika wakati uliopita. (Alama 4)

"Mwanafunzi alisoma kitabu jana."

_____

(d) **Mnyambuliko:**

Nyambua kitenzi **'Soma'** katika kauli hizi: (Alama 4)

i. Kutendea: _____

ii. Kutendwa: _____

(e) **Sentensi:** Ainisha sentensi hii (Sahili, Ambatano au Changamano). (Alama 2)

"Mama anapika chakula na baba anasoma gazeti."

_____

(f) **Viakifishi:**

Sahihisha sentensi hii kwa kutumia herufi kubwa na alama za nukuu. (Alama 4)

"mwalimu alisema, mwanafunzi soma kwa bidii."

_____

(g) **Isimujamii:**

Taja sifa mbili za **Sajili ya Sokoni**. (Alama 4)

i. _____

ii. _____

(h) **Kinyume:**

Toa kinyume cha maneno haya. (Alama 4)

i. Keti: _____

ii. Mrefu: _____

Swali la 5: Insha (Alama 20)

Chagua mada MOJA na uiandikie insha isiyopungua maneno 200.

1. **Barua ya Kirafiki:** Andika barua kwa rafiki yako anayeishi **Mombasa** ukimweleza kuhusu maisha yako katika shule mpya ya Gredi ya 10.
2. **Insha ya Picha:**

Angalia picha ifuatayo ya soko la **Maasai Market** kisha uandike insha ya masimulizi kuhusu tukio lililotokea hapo.

3. **Insha ya Wasifu:** Mwandikie wasifu mwalimu wako unayempenda zaidi shuleni.

_____

_____

_____

_____

_____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – MARINE TECHNOLOGY
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

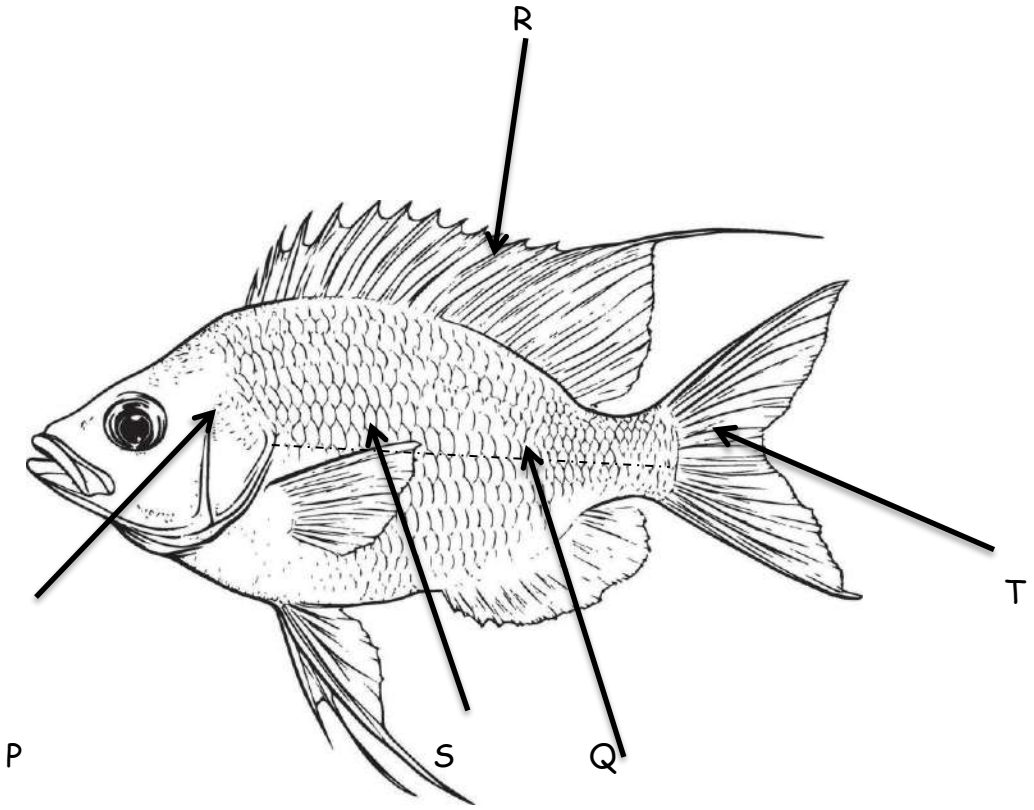
SECTION A (30 MARKS)

Answer ALL questions in this section.

1. The following are Kenyan aquatic ecosystems. Name the ecosystem and state one physical or chemical characteristic.

Image Reference	Name of Ecosystem	One Characteristic
	(a)	(b) Salt-tolerant vegetation
	(c)	(d) High biodiversity
	(e) Estuary	(f) _____

2. Four learners from **Kisumu Day Senior School** are observing a Tilapia. They identified parts P, Q, R, and S.



Identify these parts

(a) **P**: _____

(b) **Q**: _____

(c) **R**: _____

(d) **S**: _____

(e) State the function of **Part T**:

_____

_____

3. Match the professional in Column A with their primary role or description in Column B. **(5 Marks)**

Column A (Career)	**Column B (Role/Description)**
(a) Aquaculturist	(i) Studies chemical composition of seawater.
(b) Marine Biologist	(ii) Manages fish processing factories in Homa Bay.
(c) Fish Quality Assurance Officer	(iii) Designs and manages fish cage systems.
(d) Oceanographer	(iv) Researches coral reef conservation in Diani.
(e) Fisheries Extension Officer	(v) Educates farmers on pond management in Sagana.

4. Stating whether the following statements are **TRUE** or **FALSE (5 Marks)**:

(a) High salinity is a biological characteristic of marine water. [_____]

(b) Cartilaginous fish, like sharks, possess an operculum to cover their gills. [_____]

(c) Aquaculture includes the farming of both fish and aquatic plants. [_____]

(d) The swim bladder helps bony fish maintain buoyancy at different depths. [_____]

(e) Lake Victoria is the largest marine water body in Kenya. [_____]

5. (a) **Define** the term "Capture Fisheries." (2 marks)

_____

_____

(b) **Distinguish** between *Extensive* and *Intensive* aquaculture systems. (4 marks)

Extensive aquaculture	**Intensive aquaculture**

(c) **List** four safety equipments required in a fishing vessel operating in the Indian Ocean. (4 marks) (i) _____

(ii) _____

(iii) _____

(iv) _____

SECTION B (50 MARKS)

6. Mr. Kamau, a teacher at **Mombasa Senior School**, wants to construct a fish pond. He has three descriptions from his students:

   Ali: "The soil should have high clay content to hold water."

   Jane: "The land should be gently sloping to allow water to flow by gravity."

   Kendi: "We need to clear all vegetation and dig the area to a specific depth."

(a) **Identify** which student is describing "Topography." (1 mark) _____

(b) **Explain** why Ali's description of "Clay soil" is critical for an earthen pond. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(c) **Outline** four steps involved in the construction of an earthen lined pond. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(d) **Compare** a "Fish Pond" and a "Fish Cage" production system. (6 marks)

Fish Pond	**Fish Cage**

7. During a visit to a landing site in **Malindi**, learners compared a **Tuna fish** and a **ray fish**.

(a) **Identify** the type of skeleton found in a Ray fish. (1 mark) _____

(b) **Stating** two external differences between the two fish. (4 marks)

Tuna	**Rays**

(c) **Explain** the function of the *Lateral Line* found in both species. (3 marks)

i. _____

ii. _____

iii. _____

(d) **Name** the internal organ used by bony fish for breathing. (2 marks)

_____

8. A fishing boat from **Shimoni** experienced engine failure and began to capsize.

(a) **Identify** the safety gear worn by the person in the image. (1 mark)

_____

(b) **Describe** the survival technique shown in the image and explain its purpose. (4 marks)

SURVIVAL TECHNIQUE

_____

_____

PURPOSE

i. _____

ii. _____

(c) **Mention** three common causes of accidents in fishing vessels in Kenya. (3 marks)

i. _____

ii. _____

iii. _____

(d) What is the first-aid treatment for *Sea Sickness*? (2 marks)

_____

_____

9. A group of investors in **Naivasha** are choosing between a *Raceway* and a *Fish Tank* for intensive Tilapia production.

A B

(a) **Identify** which system is labeled ***A*** in the image. (1 mark)

_____

(b) **Explain** two economic benefits of aquaculture to the Kenyan economy. (4 marks)

i. _____

ii. _____

(c) **Outline** three challenges facing aquaculture development in Kenya today. (6 marks)

i. _____

ii. _____

iii. _____

(d) Calculate the volume of a rectangular fish tank that is 5m long, 3m wide, and 2m deep. (4 marks)

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – MEDIA TECHNOLOGY
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. Grade 10 learners at **Lamu Senior School** are visiting a local museum to trace the history of media. They see several devices used for communication.

Image Reference	Name of Media Format	Form (Print or Electronic)
	(a) _____	(b) _____
	(c) _____	(d) _____
	(e) New Media	(f) Electronic

2. During a career day at **Ooolmirani Senior School**, five professionals were invited. Match the professional with the image of the tool they use most frequently.

Professional	Image of Tool
(a) Gaffer	(i) 
(b) Audio Visual Editor	(ii) 
(c) Camera Operator	(iii) 
(d) Sound Operator	(iv) 
(e) Newscaster	(v) 

3. Three learners, **Akinyi, Mutua, and Wanjiku**, took the following photos during a trip to **Maasai Mara**. Identify the genre of each photo.

(a) 

Genre: _____

(b) 

Genre: _____

(c) 

Genre: _____

(d) **Distinguish** between a *Prime Lens* and a *Zoom Lens*. (2 marks)

_____

_____

_____

4. **Stating** whether the following statements are **TRUE** or **FALSE** based on the production process:
   (a) "Pitching" and "Casting" are activities found in the Production phase. [_____**]**

(b) Marketing and distribution are key steps in the Post-Production phase. [_____]

(c) A "Production Designer" is responsible for the visual look of the set. [_____]

(d) Importing and exporting clips are tasks performed during Pre-Production. [_____]

(d) OSHA principles help in ensuring the safety of personnel on a film set. [_____]

5. (a) **Define** "Multimedia." (2 marks)

_____

_____

_____

(b) **List** three types of media ownership in Kenya. (3 marks)

(i) _____

(ii) _____

(iii) _____

(c) **Outline** three camera accessories used to stabilize a video camera. (3 marks)

(i) _____

(ii) _____

(iii) _____

(d) **Mention** two software programs used for video editing. (2 marks)

(i) _____

(ii) _____

SECTION B (50 MARKS)

6. The Media Club at **Multimedia University** is setting up a basic studio to record a "Talk Show" about climate change in Kenya.

(a) **Identify** the three types of lights used in the 3-point lighting setup. (3 marks)

(i) _____

(ii) _____

(iii) _____

(b) **Explain** the role of the "Director" during the *Production Phase* of this talk show. (4 marks)

(i) _____

(ii) _____

(c) Draw a simple labeled sketch of a **Boom Pole** setup for audio. (4 marks)

(d) **Describe** two safety hazards (OSHA) the crew should avoid in this studio. (4 marks)

(i) _____

(ii) _____

7. Four learners at **Kwale Senior School** are describing elements of their upcoming short film project:

   Ali: "I am researching the history of Fort Jesus to make the story accurate."

   Zainab: "I am creating a list of all the cameras and microphones we need to buy or rent."

   John: "I am writing the dialogue and stage directions for the actors."

   Moraa: "I am calculating the total cost of transport and food for the crew."

(a) **Identify** who is performing the role of a *Creative Writer*. (1 mark) _____

(b) **Name** the step Zainab is performing. (1 mark)

_____

(c) **Explain** why Ali's "Research" is important in the Pre-Production phase. (4 marks)

(i) _____

(ii) _____

(iii) _____

(iv) _____

(d) **Outline** the importance of "Budgeting" as described by Moraa. (4 marks)

(i) _____

(ii) _____

8. A learner from **Nyeri Senior School** is using a DSLR camera to take photos of Mt. Kenya.

A B

C D

(a) **Identify** the parts labeled **A** and **C**. (2 marks)

A: _____

C: _____

(b) **Explain** the function of the **Image Sensor** inside the camera. (1 mark)

_____

_____

(c) **Compare** a *Photography Camera* and a *Video Camera* in terms of their primary storage and frame rates. (4 marks)

Photography Camera	***Video Camera***

(d) **Name** the accessory used to clean the camera lens. (1 mark)

_____

9. A community radio station in **Turkana** is recording a podcast.

Q R

(a) **Name the type of microphones** shown above

Q: _____

R: _____

(b) **Identify** which microphone (Q or R) is most suitable for a quiet studio setting. (1 mark)

_____

(c) **Explain** the difference between "Ambience" sound and "Spoken Audio." (4 marks)

Ambience	**Spoken Audio**

(d) **List** four members of the management structure in a media company. (4 marks)

(i) _____

(ii) _____

(iii) _____

(iv) _____

(e) **Describe** one advantage and one disadvantage of *Government-owned* media in Kenya. (6 marks)

Advantage	**Disadvantage**

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SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – METAL TECHNOLOGY
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. Grade 10 learners at **Wote Senior School** are touring a local Jua Kali workshop. They see various items and are asked to define them. Match the term to its correct definition.

Term	Definition
(a) Metal Technology	(i) Equipment used to protect the body from injury.
(b) Workshop	(ii) Materials that do not contain iron as a main base.
(c) PPE	(iii) The study of tools, materials, and processes used in metal.
(d) Non-Ferrous	(iv) A building where metalwork or repairs are carried out.
(e) Machine	(v) A device with moving parts that performs a specific task.

2. Three learners are discussing safety rules under the Occupational Safety and Health Act (OSHA). A learner used the following safety equipment

(a) **Identify** the specific PPE being used in the image. (1 mark) _____

(b) **State** one possible cause of an accident in a workshop as shown by a blocked gangway. (1 mark)

_____

(c) **Outline** the first-aid procedure for a minor burn in the workshop. (3 marks)

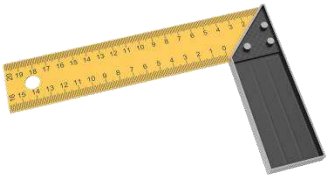
i. _____

ii. _____

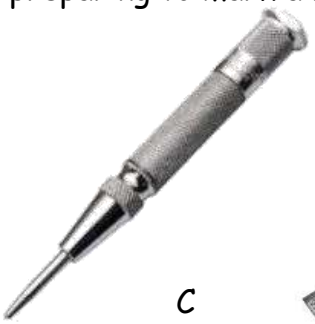
iii. _____

3. At **Nyabisase Senior School**, learners are preparing to mark a mild steel plate for a project.

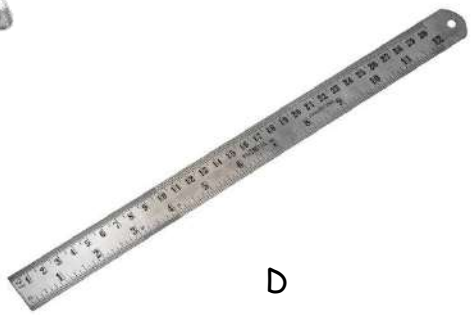
A



B



C



D

(a) **Name** tool **B**: _____

(b) **Identify** which tool is used for making permanent marks at the center of a hole. (1 mark)

_____

(c) **Explain** the function of tool **A**:

_____

_____

(d) **State** one maintenance practice for the Steel Rule (D). (1 mark)

_____

_____

4. **Stating** whether the following statements are **TRUE** or **FALSE**: **(5 Marks)**

(a) High carbon steel is more brittle than mild steel. [_____]

(b) Aluminum is an example of a ferrous metal. [_____]

(c) "Malleability" is a mechanical property of metal. [_____]

(d) Copper is a good conductor of electricity used in wiring. [_____]

(e) Tin is obtained from iron ore in a blast furnace. [_____]

5. (a) **Define** the term "Riveting." (2 marks)

_____

_____

(b) **List** three forms of material supply in a metal workshop. (3 marks)

(i) _____

(ii) _____

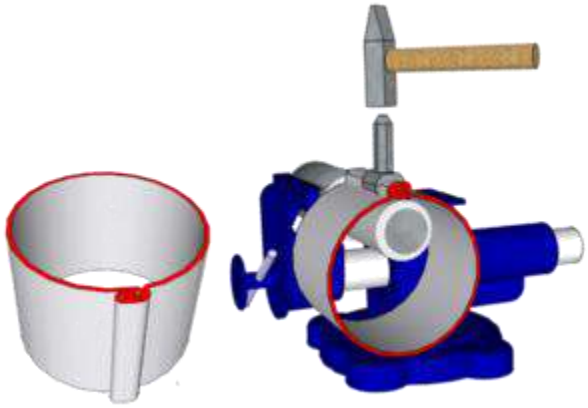
(iii) _____

(c) **Distinguish** between a "Butt Joint" and a "Lap Joint" using simple sketches. (5 marks)

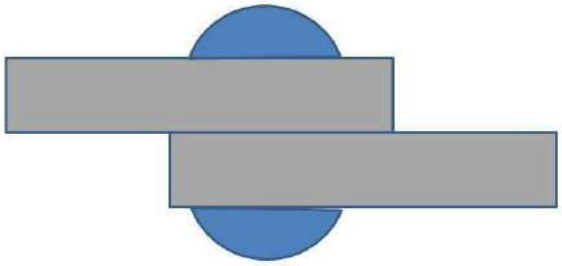
Butt Joint	**Lap Joint**

SECTION B (50 MARKS)

6. A community in **Makueni** is facing a problem with storage of clean water. Learners at the local Senior School suggest making a galvanized sheet metal container.



A



B

(a) **Identify** the joint labeled **A**. (1 mark) _____

(b) **Explain** why a grooved seam is preferred for a water container over a simple lap joint. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(c) **Outline** the steps for carrying out a riveting process on the container handle. (6 marks)

i. _____

ii. _____

iii. _____

(d) **Acknowledge** two safety precautions to observe when handling thin sheet metal. (4 marks)

i. _____

ii. _____

7. A technician at **Mombasa Senior School** needs to draw a 3D figure for a metal bracket.

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

151

_____

(b) Draw the orthographic projection in first angle from isometric projection. (5 marks)

(c) **State** the importance of "Dimensioning" in a pictorial drawing. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

8. Grade 10 learners are studying the production of iron from its ore.

(a) **Name** three raw materials fed into the top of the furnace. (3 marks)

(i) _____

(ii) _____

(iii) _____

(b) **Describe** the process of "Sinking" as applied in sheet metal processes. (3 marks)

i. _____

ii. _____

iii. _____

(c) **Compare** Ferrous and Non-Ferrous metals based on their reaction to a magnet. (4 marks)

Ferrous metals	**Non ferrous metals**

9. **Mutua**, a learner at **Machakos Senior School**, is selecting tools for a task that involves cutting and filing a metal bar.

J

K

L

(a) Name the tools labelled. (3 marks)

J: _____.

K: _____.

L: _____.

(b) **Identify** the tool used to hold the metal bar firmly during cutting. (1 mark) _____

(c) **Explain** how to maintain the tool J to ensure it lasts long. (1 mark)

_____

_____

(d) **Outline** the components of a standard metal workshop layout. (6 marks)

i. _____
ii. _____
iii. _____
iv. _____
v. _____
vi. _____

(e) **Mention** four career opportunities related to metal technology in Kenya. (4 marks)

(i) _____

(ii) _____

(iii) _____

(iv) _____

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SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – PHYSICAL EDUCATION
Time: 2 Hours

LEARNER'S DETAILS

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

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

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

INSTRUCTIONS TO CANDIDATES

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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.
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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.

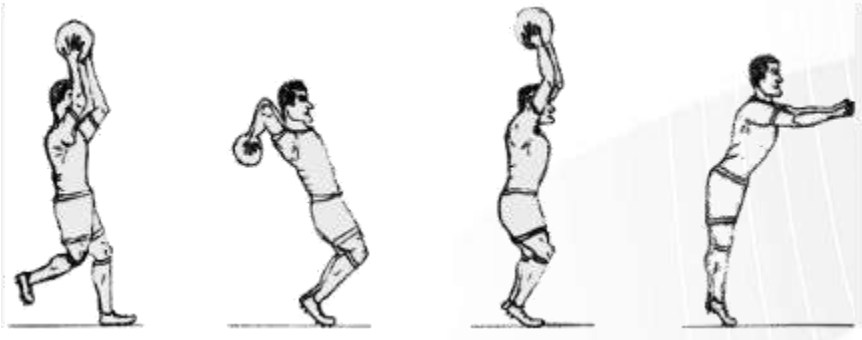
FOR OFFICIAL USE ONLY

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. During a match at **Kagundo Senior School**, the ball goes out of play over the touchline. A learner, **Otieno**, prepares to bring the ball back into play.



(a) **Identify** the restart method shown in the diagram. (1 mark) _____

(b) **State** two technical requirements for this restart to be legal. (2 marks)

(i) _____

(ii) _____

(c) **True/False:** A goal can be scored directly from a throw-in. [_____] (1 mark)

(d) **Mention** the restart used after a goal is scored. (1 mark) _____

2. Four learners at **Lugulu Girls** are discussing passes.

Mutua: "I use one hand to flick the ball quickly to a teammate."

Sarah: "I pass the ball while I am moving at high speed."

Nekesa: "I release the ball from the side of my body to avoid a defender."

(a) **Name** the pass described by Mutua. (1 mark) _____

(b) **Identify** the pass described by Sarah. (1 mark) _____

(c) **Select** the "Side Pass" from the images below. (1 mark)

A:

B:

C:

(d) **Outline** two steps in executing a "Running Shot" in Netball. (2 marks)

(i) _____

(ii) _____

3. A coach at certain school is teaching the "Crossover Dribble."

(a) **Identify** the dribbling technique shown. (1 mark) _____

(b) **Explain** the purpose of "Faking" and "Feinting" in Basketball. (2 marks)

_____

_____

(c) **Distinguish** between a "Set Shot" and a "Jump Shot." (2 marks)

Set Shot	**Jump Shot**

4. Learners at **Kaplong Girls** are practicing the 100m Hurdles.

(a) **Label** the parts of the technique indicated: (2 marks)

X: _____

y: _____

(b) **Identify** the phase of hurdling that happens immediately after clearing the hurdle. (1 mark)

_____

(c) **List** two safety measures to observe during hurdle practice. (2 marks)

(i) _____

(ii) _____

5. Learners from **Nyeri High School** are sorting items for a camping trip to **Mt. Kenya**.

H

J

K

L

(a) **Match** the item to its function. (4 marks)

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Item	Name	Function
H		
J		
K		
L		

(b) **Define** the term "Campsite." (1 mark)

_____

_____

6. (a) Write **True/False in the following statement:**

The 800m and 1500m races are examples of middle-distance races. [_____] (1 mark)

(b) **State** why "Pacing" is important in middle-distance running. (2 marks)

_____

_____

(c) **Identify** the correct "Breathing Technique" for long-distance efficiency. (2 marks)

_____

_____

SECTION B (50 MARKS)

7. A goalkeeper at **Kakamega High** is performing a "Lofted Pass."

(a) **Describe** the point of contact on the ball to achieve a lofted pass. (2 marks)

_____

_____

(b) **List** three roles of a goalkeeper in a football match. (3 marks)

(i) _____

(ii) _____

(iii) _____

(c) **Explain** the difference between "Marking" and "Dodging." (3 marks)

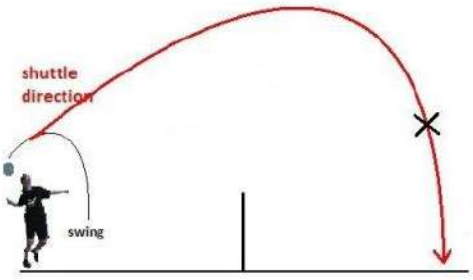
Marking	**Dodging**

(d) **Mention** two restart skills that a goalkeeper is directly involved in. (2 marks)

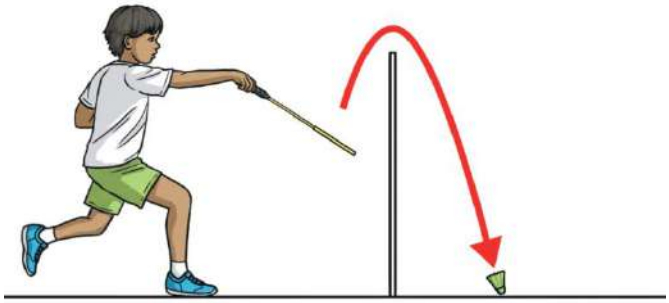
(i) _____

(ii) _____

8. Players at **Pangani Girls** are practicing the "Forehand Clear" and "Drop Shot."



A



B

(a) **Identify** the strokes: (2 marks)

Diagram A: _____

Diagram B: _____

(b) **Compare** a "Long Service" and a "Short Service" in Badminton. (4 marks)

Long Service	Short Service

(c) **Explain** how the "Grip" affects the execution of a smash. (2 marks)

_____

_____

(d) **Name** the equipment used to hit the shuttlecock. (2 marks) _____

9. Learners are running a Cross Country race in the hilly terrain of **Iten, Elgeyo Marakwet**.

(a) **Describe** the correct body posture for running **uphill**. (3 marks)

_____

_____

_____

(b) **Outline** how "Terrain Adaptation" influences an athlete's speed. (3 marks)

_____

_____

_____

(c) **Mention** two health benefits of participating in Cross Country. (2 marks)

(i) _____

(ii) _____

(d) **Identify** the type of start used in Cross Country. (2 marks) _____

10. A Grade 10 group at **Limuru Girls** has reached their destination and needs to set up camp.

(a) **Identify** three essential features of a well-organized campsite shown in the diagram. (3 marks)

(i) _____

(ii) _____

(iii) _____

(b) **Explain** why the "Fire Pit" should be located away from the "Tent Area." (2 marks)

_____

_____

_____

(c) **List** three factors to consider when **selecting** a campsite. (3 marks)

(i) _____

(ii) _____

(iii) _____

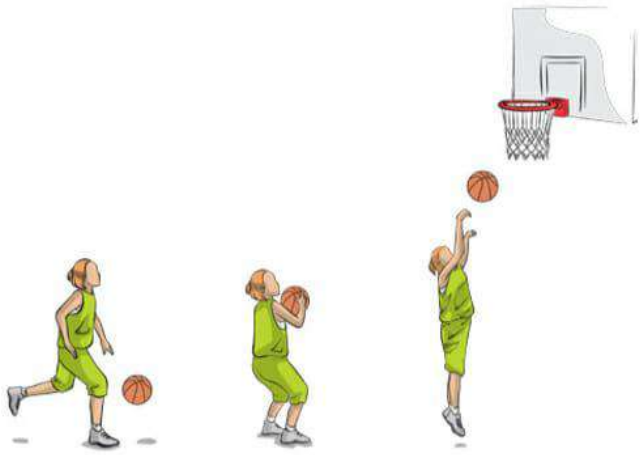
(d) **State** the importance of "Teamwork" in pitching a tent. (2 marks)

_____

_____

_____

11. A learner, **Kamau**, is demonstrating a certain type of a shot at **Maseno School**.



(a) **Identify** the shot being performed. (1 mark) _____

(b) **Describe** the "Footwork" involved in the final stages of this shot. (3 marks)

_____

_____

_____

(c) **Explain** why the "Backboard" is used during a lay-up. (2 marks)

_____

_____

(d) **State** two interpersonal skills developed through playing Basketball. (2 marks)

(i) _____

(ii) _____

(e) **Name** the part of the hand that should control the ball during a dribble. (2 marks)

_____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – PHYSICS
Time: 2 Hours

LEARNER'S DETAILS

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6. Do NOT remove any page from this question paper
7. Silent non programmable calculators may be used.
8. Assume:

    i. Acceleration due to gravity, **$g = 10\ m/s^2$**
    ii. Density of water = **$1000\ kg/m^3$**

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. At **Shankoe Senior School**, three learners are discussing the relevance of Physics in Kenya.

    Mwende: "I want to be a Telecommunications Engineer because I love the **Electronics** branch."

    Kiprono: "I am interested in how engines work, which falls under **Mechanics**."

    Achieng: "I want to study the stars and the universe, which is **Astronomy**."

(a) **Identify** the branch of Physics that deals with the study of heat and temperature. (1 mark)

_____

(b) **Match** the learner to the most relevant career path: (2 marks)

Mwende: _____

Achieng: _____

(c) **State** one relationship between Physics and Geography. (2 marks)

_____

_____

2. **Zavai**, a Grade 10 learner in **Mombasa**, uses a drinking straw to enjoy some juice by the beach. Study the diagram below.

(a) **Explain** the role of atmospheric pressure in making the juice rise up the straw. (2 marks)

_____

_____

(b) **Identify** the factor labeled h in the formula $P=\rho gh$ used to calculate pressure at the bottom of the ocean in **Kilifi**. (1 mark)

_____

(c) **Name** the hydraulic machine shown below and state the principle it uses. (2 marks)

Name: _____

Principle

_____

_____

3. A technician at a construction site in **Nairobi** is testing different wires.

(a) **Distinguish** between **Ductility** and **Brittleness** based on the graph. (2 marks)

_____

_____

_____

(b) **Define** Hooke's Law as applied to a spring in a weighing scale. (2 marks)

_____

_____

(c) **Identify** the property of a material that resists scratching or indentation. (1 mark)

_____

_____

4. Learners at **Kamukunji Senior School** are investigating why a glass bottle cracks when water inside it freezes.

(a) **Describe** the Anomalous Expansion of Water" between 0◦C and 4◦C. (2 marks)

_____

_____

_____

(b) **Name** the device shown below used to control temperature in an electric iron. (1 mark)

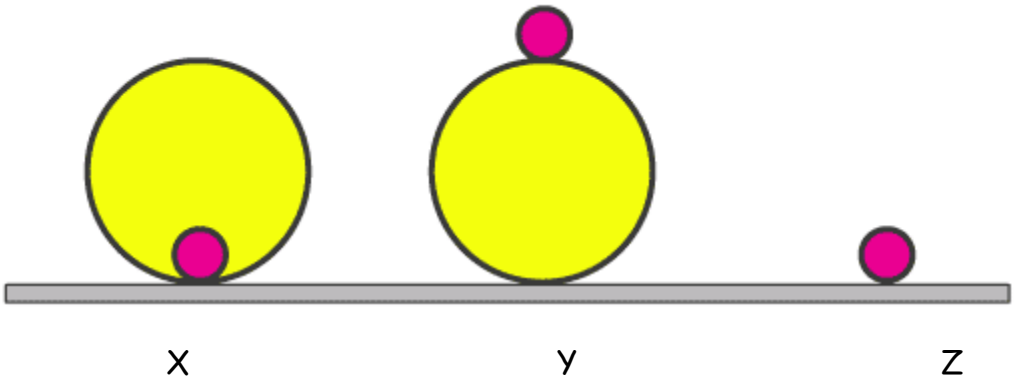
_____

(c) **List** two other technologies used to measure temperature besides liquid-in-glass thermometers. (2 marks)

i. _____

ii. _____

5. (a) **Identify** the state of equilibrium for the three cones shown below. (3 marks)



X: _____

Y: _____

Z: _____

(b) **Define** the "Center of Gravity" of an object. (2 marks)

_____

_____

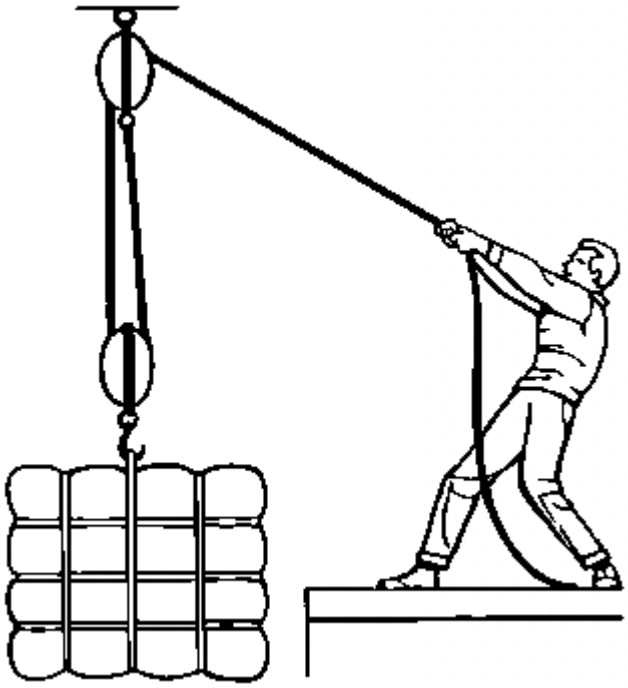
(c) Wirite whether the following statement is **True or False:**

For a body to be in equilibrium, the sum of clockwise moments must equal the sum of anticlockwise moments about the same point. [_____] (1 mark)

(d) **Calculate** the moment of the force in the scenario below. (4 marks)

SECTION B (50 MARKS)

6. A worker at the **Port of Mombasa** uses a pulley system to lift a crate.



(a) **Identify** the type of machine shown and **Name** the parts labeled **Effort** and **Load**. (3 marks)

_____

_____

_____

(b) **Explain** why the efficiency of this machine can never be 100%. (3 marks)

_____

_____

_____

(c) **Distinguish** between **Potential Energy** and **Kinetic Energy** using a swinging pendulum as an example. (4 marks)

Potential energy	Kinetic energy

(d) **Calculate** the work done if a force of 200N moves an object 5m in the direction of the force. (3 marks)

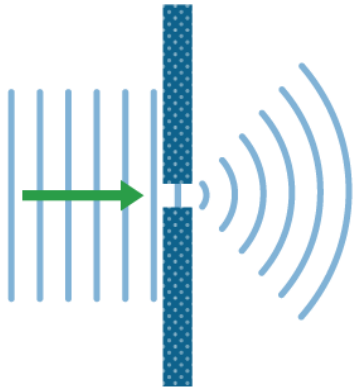
(e) **Outline** one application of an inclined plane in a Kenyan hospital. (2 marks)

_____

_____

_____

7. Grade 10 learners at **Kenya High School** are observing water waves in a ripple tank.



(a) **Name** the wave property illustrated in the image above. (2 marks)

_____

_____

_____

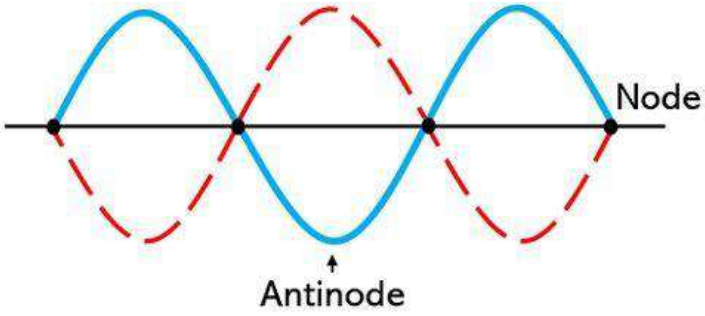
(b) **Explain** the "Doppler Effect" using the example of a police siren moving through **Nakuru** town. (4 marks)

_____

_____

_____

(c) **Identify** the type of wave shown below that is formed by the interference of two identical waves traveling in opposite directions. (2 marks)



_____

_____

_____

(d) **Describe** how **Resonance** can be dangerous to a bridge in **Thika**. (4 marks)

_____

_____

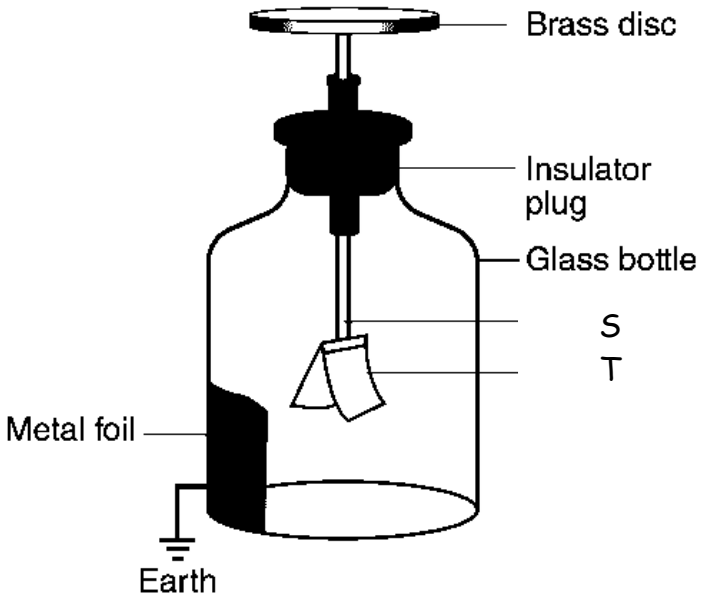
_____

(e) **Define** the term "Refraction" of waves. (3 marks)

_____

_____

8. Study the diagram of the Gold Leaf Electroscope used in a lab in **Eldoret**.



(a) **Name** the parts labeled: (2 marks)

S: _____

T: _____

(b) **Outline** the steps to charge this electroscope negatively by induction. (4 marks)

i. _____
ii. _____
iii. _____

(c) **Identify** the electric field pattern between two unlike charges. (2 marks)

_____

_____

(d) **State** one application of electrostatics in modern industry. (2 marks)

_____

_____

_____

9. (a) **Identify** the three types of radiation based on their penetration power. (3 marks)

i. _____

ii. _____

iii. _____

(b) **Define** "Half-life" of a radioactive isotope. (2 marks)

_____

_____

(c) **Explain** the "Big Bang Theory" regarding the origin of the universe. (3 marks)

_____

_____

_____

_____

_____

_____

(d) **List** two career opportunities available for students interested in Space Physics. (2 marks)

i. _____

ii. _____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSIGNMENT 2026

GRADE 10 – POWER MECHANICS
Time: 2 Hours 30 Minutes

LEARNER'S DETAILS

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

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

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

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9. For technical drawing questions, ensure **all construction steps are clearly shown**

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LEARNER'S TOTAL SCORE											

SECTION A (30 MARKS)

Answer ALL questions in this section.

1. Three learners at **Muranga School** are discussing their future in the Power Mechanics industry.

   Kamau: "I want to design new engine systems for electric cars."

   Mutua: "I want to work in the **Service and Repair** sector at a garage in **Machakos**."

   Otieno: "I am interested in **Marine Engineering**, working on ship engines in **Mombasa**."

(a) **Identify** the specific career path Kamau is interested in. (1 mark)

_____

(b) **Name** the branch of power mechanics that Otieno's interest falls under. (1 mark)

_____

(c) **List** three activities related to power mechanics that can be found in a local shopping center. (3 marks)

i. _____
ii. _____
iii. _____

2. Study the workshop diagram below showing a standard power mechanics layout.

A **D**

(a) **Identify** the area labeled **A** and **D**. (2 marks)

A: _____
D: _____

(b) **Select** the correct Personal Protective Equipment (PPE) from the list below that a learner must wear when handling a battery in the workshop:

Respirator Rubber Gloves Welding Shield (1 mark)

(c) **Explain** the importance of maintaining clear **Passageways (D)** in a workshop. (2 marks)

i. _____
ii. _____

3. A Grade 10 learner at **Amapera Senior School** is inspecting a tire with the following markings: **205/55 R 16**.

(a) **Identify** what the letter **R** stands for in the specification. (1 mark)

_____

(b) **Distinguish** between **Tube** and **Tubeless** tires based on their construction. (2 marks)

Tube tire	**Tubeless tire**

(c) **Name** the two types of tire ply orientations used in vehicles. (2 marks)

i. _____

ii. _____

4. Technical drawing is essential for power mechanics. Study the mechanism below.

(a) **Define** the term "Locus" as used in technical drawing. (1 mark)

_____

_____

(b) **Identify** the type of locus produced by a point on a circle rolling along a straight line. (1 mark)

_____

_____

(c) **Outline** the method for constructing an **Internal Tangent** to two unequal circles. (3 marks)

i. _____

ii. _____

iii. _____

5. (a) **Match** the vehicle body type in Column A with its correct description in Column B. (5 marks)

Column A	**Column B**
(i) Station Wagon	(A) A vehicle with an open cargo area and a cabin.
(ii) Convertible	(B) A car with a roof that can be folded down or removed.
(iii) Pickup	(C) A car with an extended roof and a hatch at the back for luggage.
(iv) Saloon	(D) A large vehicle designed to carry many passengers.
(v) Bus	(E) A standard car with four doors and a separate boot.

(b) **Identify** the two types of chassis construction shown in the images below. (2 marks)

i. _____

ii. _____

(c) **State** three functions of a vehicle chassis. (3 marks)

i. _____
ii. _____
iii. _____

SECTION B (50 MARKS)

6. Below is an exploded view of a single-cylinder internal combustion engine.

X Y Z W

(a) **Name** the components labeled **X, Y, Z,** and **W**. (4 marks)

X: _____ Y: _____
Z: _____ W: _____

(b) **Describe** the function of the **Crankshaft (Y)** in relation to the piston's motion. (3 marks)

i. _____
ii. _____
iii. _____

(c) **Explain** the purpose of the **Camshaft (W)** in the valve timing mechanism. (3 marks)

i. _____
ii. _____
iii. _____

(d) **Compare** the material used for the **Cylinder Block** versus the **Sump**. (3 marks)

Cylinder block	**Sump**

(e) **Identify** the component that seals the top of the cylinder block. (2 marks)

i. _____

ii. _____

7. A mechanic in **Thika** is performing a precision measurement on an engine block.

S

T

(a) **Identify** the tools being used in the pictures above. (2 marks)

S: _____

T: _____

(b) **Explain** why it is necessary to measure the **Cylinder Bore** for "ovalness" and "taper." (4 marks)

i. _____

ii. _____

iii. _____

(c) **Describe** the procedure for measuring the **Piston Ring Gap** using a feeler gauge. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

(d) **Calculate** the engine capacity in cm^3 if the bore is 80mm and the stroke is 90mm (use π=3.142). (3 marks)

(e) **Mention** the unit used to express Engine Power in the SI system. (2 marks)

i. _____

ii. _____

8. (a) **Distinguish** between an **Internal Combustion Engine (ICE)** and an **External Combustion Engine (ECE)** using the table below. (4 marks)

Feature	Internal Combustion	External Combustion
Location of Combustion		
Common Example		

(b) Write **True or False** in the following statement:

The "Big Bang" theory is related to the evolution of the first steam engine. [_____] (1 mark)

(c) **Identify** the engine cylinder layout shown in the diagrams below. (3 marks)

i. _____

ii. _____

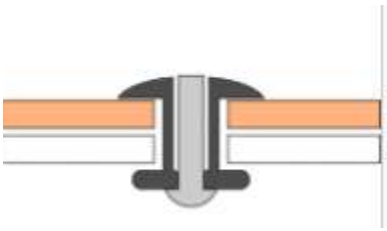
iii. _____

(d) **State** one key trend in the historical development of automobiles regarding fuel efficiency. (2 marks)

i. _____

ii. _____

9. (a) **Identify** the three joining components shown below. (3 marks)



i ii iii

i. _____

ii. _____

iii. _____

(b) **Define** the terms "Adhesion" and "Cohesion" as used in vehicle body repairs. (2 marks)

_____
_____
_____
_____

(c) **Explain** the process of **Riveting** when joining two metal sheets of a vehicle body. (3 marks)

i. _____
ii. _____
iii. _____

(d) **List** two types of threaded fasteners used in engine assembly. (2 marks)

i. _____
ii. _____

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

AUGUST ASSESSMENT 2026

GRADE 10 – WOOD TECHNOLOGY

Time: 2 Hours

LEARNER'S DETAILS

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

177

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

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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)

iv. _____

v. _____

2. Study the diagram of the workshop layout below.

X

Y

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

X: _____.

Y: _____.

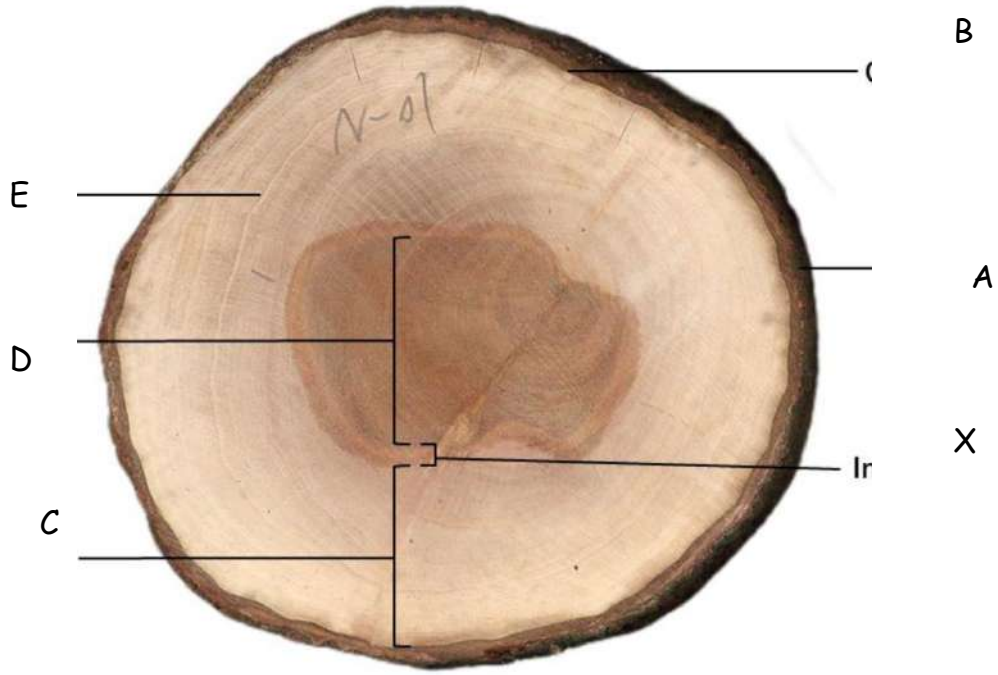
(b) **List** three safety rules that must be observed to prevent accidents in the area labeled **X**. (3 marks)

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: _____.

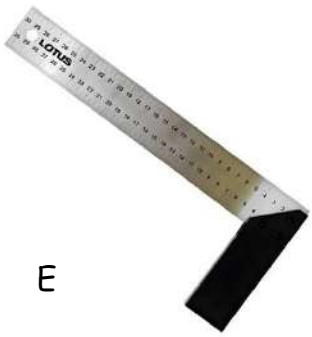
D: _____.

(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

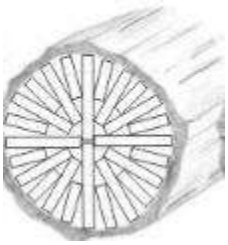
E: _____

G: _____

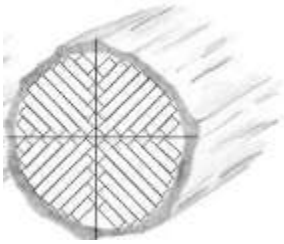
(b) **Match** the tool to its correct classification: (3 marks)

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)

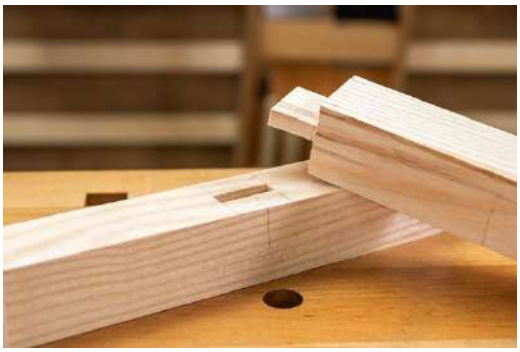
i. _____
ii. _____
iii. _____

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

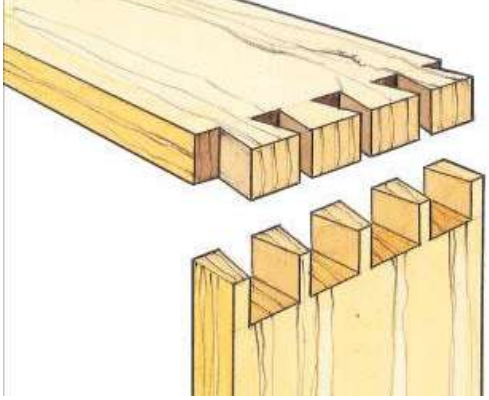
i. _____
ii. _____

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	

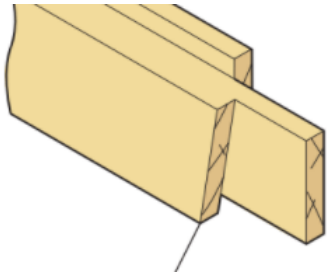
(c) **Outline** the procedure for cutting the "Mortise" part of joint **X**. (4 marks)

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)



Z _____

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)

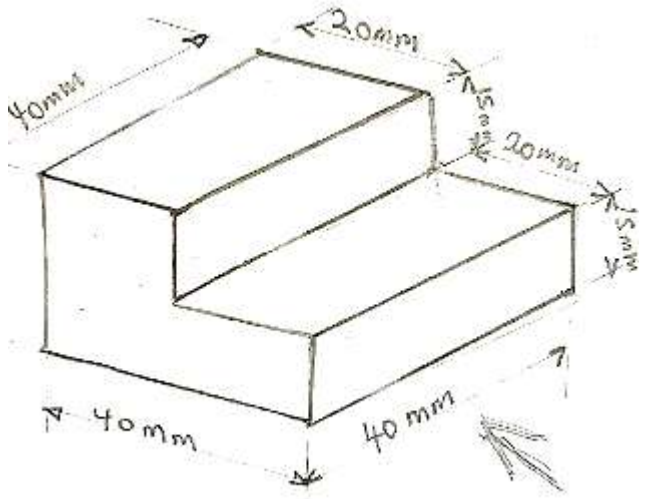
i. _____

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. _____

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NOTES

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