DECEMBER HOLIDAY ASSIGNMENTS 2026

COMPETENCY BASED EDUCATION SENIOR SCHOOL CURRICULUM

GRADE 10 WRITTEN ASSESSMENTS



THE BOOK CONTAINS PROJECTS FROM:

1. STEM PATHWAY
2. SOCIAL SCIENCE PATHWAY
3. ARTS AND SPORTS PATHWAY

LEARNER'S NAME: .....

SCHOOL: .....

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GRADE 10 AGRICULTURE

MARKING SCHEME / ANSWERS

SECTION A: 30 MARKS

1. Factors considered when selecting agricultural land

Any two:

- Soil type and fertility
- Topography/slope
- Rainfall
- Availability of water
- Drainage
- Accessibility
- Climate
- Size of land
- Security

(2 marks)

2. Difference between soil fertility and soil productivity

- **Soil fertility:** Ability of soil to supply essential nutrients to crops in adequate amounts.
- **Soil productivity:** Ability of soil to produce crops under given management and environmental conditions.

(2 marks)

3. Characteristics of fertile soil

Any two:

- Contains adequate plant nutrients.
- Has good water-holding capacity.
- Has good drainage.
- Contains sufficient organic matter.
- Has good soil structure.
- Supports healthy plant growth.

(2 marks)

4.

a) Ploughing turns and loosens the soil, buries weeds and incorporates organic matter.
(1 mark)

b) Harrowing breaks soil clods, levels the seedbed and produces a fine tilth.
(1 mark)

5. Reasons for using good-quality planting materials

Any three:

- They have high germination percentage.
- Produce healthy and vigorous plants.
- Give higher yields.
- Are more resistant to pests and diseases.
- Produce uniform crops.
- Mature within the expected period.

(3 marks)

6. Problems resulting from shallow planting

Any two:

- Seeds may dry out due to exposure to heat.
- Seeds may be eaten by birds or rodents.
- Plants may develop weak root systems.
- Seedlings may easily be uprooted.
- Poor germination may occur.

(2 marks)

7. Factors influencing choice of weed-control method

Any three:

- Type of weed present
- Stage of weed growth
- Type of crop
- Size of the farm
- Cost of control
- Availability of labour
- Effectiveness of the method
- Environmental effects
- Availability of equipment

(3 marks)

8. Benefits of crop rotation

Any two:

- Breaks pest and disease cycles.
- Maintains/improves soil fertility.
- Reduces weed infestation.
- Prevents soil nutrient depletion.
- Improves soil structure.
- Increases crop yields.

(2 marks)

9.

a) Insect.
(1 mark)

b) Any one:

- Hand-picking
- Use of appropriate pesticides
- Biological control
- Use of traps
- Cultural control

(1 mark)

10. Benefits of mulching

Any two:

- Conserves soil moisture.
- Suppresses weed growth.
- Reduces soil erosion.
- Regulates soil temperature.
- Adds organic matter when organic mulch decomposes.
- Reduces evaporation.

(2 marks)

11. Indicators of crop maturity

Any two:

- Change in colour
- Appropriate size
- Appropriate shape
- Firmness
- Characteristic smell/aroma
- Drying of leaves or pods
- Ease of detachment
- Required moisture content

(2 marks)

12. Characteristics of a good beef animal

Any two:

- Broad and deep body.
- Well-developed muscles.
- Short, strong legs.
- Wide hindquarters.
- Good feed-conversion ability.
- Rapid growth rate.
- Good disease resistance.

(2 marks)

13. Importance of a balanced livestock diet

Any two:

- Promotes growth and development.
- Provides energy.
- Supports reproduction.
- Maintains good health.
- Increases production of milk, meat or eggs.
- Improves resistance to diseases.

(2 marks)

14. Factors considered when selecting livestock housing

Any two:

- Adequate space
- Proper ventilation
- Good drainage
- Availability of water
- Security
- Protection from harsh weather
- Ease of cleaning
- Availability and cost of construction materials
- Proximity to the farm

(2 marks)

15.

Record: Any one:

- Feeding record
- Egg-production record
- Mortality record
- Sales record
- Vaccination/health record
- Financial record

(1 mark)

Reason: Any one:

- Helps monitor production.
- Helps determine profitability.
- Assists in planning.
- Helps identify poor-performing birds.
- Provides information for decision-making.

(1 mark)

SECTION B: 50 MARKS

16.

a) Importance of soil water in crop production

Any four:

1. **Dissolves nutrients** — Enables nutrients in the soil to become available for uptake by plant roots.
2. **Supports photosynthesis** — Water is a raw material used during photosynthesis.
3. **Maintains plant turgidity** — Helps plants remain firm and upright.
4. **Transports nutrients** — Carries dissolved nutrients from the roots to other parts of the plant.
5. **Supports seed germination** — Seeds require water to initiate germination.
6. **Regulates plant temperature** — Water loss through transpiration helps cool plants.

(4 marks)

b) Methods of conserving soil moisture

Any three:

- **Mulching** — Reduces evaporation from the soil surface.
- **Terracing** — Slows water movement and increases infiltration.
- **Contour farming** — Reduces runoff and allows more water to enter the soil.
- **Cover cropping** — Protects the soil and reduces evaporation.
- **Minimum/zero tillage** — Maintains soil structure and reduces moisture loss.
- **Planting windbreaks** — Reduces wind speed and evaporation.

(3 marks)

c) Measures for reducing soil erosion

Any three:

- Terracing
- Contour farming
- Strip cropping
- Planting cover crops
- Grass strips
- Agroforestry
- Mulching
- Maintaining vegetation cover
- Constructing check dams

(3 marks)

17.

a) Factors considered when selecting planting materials

Any four:

1. **High germination percentage** — Ensures good crop establishment.
2. **Freedom from pests and diseases** — Prevents introduction of pests and diseases into the farm.
3. **High-yielding variety** — Increases potential production.
4. **Adaptability** — The variety should perform well under local climatic conditions.

5. **Purity** — Ensures uniformity of the crop.
6. **Maturity period** — Should suit the farmer's production objectives.
7. **Market preference** — Produce should meet consumer requirements.

(4 marks)

b) Crop management practices after emergence

Any three:

- **Weeding** — Removes plants competing with potatoes for nutrients, water and light.
- **Earthing up** — Covers developing tubers and protects them from sunlight.
- **Fertiliser application/top dressing** — Supplies nutrients required for growth.
- **Pest control** — Prevents crop damage.
- **Disease control** — Prevents losses caused by diseases.
- **Irrigation** — Provides adequate water where rainfall is insufficient.
- **Mulching** — Conserves moisture and suppresses weeds.

(3 marks)

c) Factors influencing harvesting method

Any three:

- Type of crop
- Size of the farm
- Labour availability
- Cost of harvesting
- Stage of crop maturity
- Intended use of the produce
- Available harvesting equipment
- Weather conditions
- Amount of produce to be harvested

(3 marks)

18.

a) Signs of poor health in livestock

Any four:

- Loss of appetite
- Weight loss
- Dull coat
- Weakness
- Abnormal discharge
- Diarrhoea
- Coughing
- Difficulty breathing
- Reduced production
- Abnormal behaviour
- Lameness
- High body temperature

(4 marks)

b) Practices for preventing livestock diseases

Any three:

1. **Vaccination** — Protects animals against specific infectious diseases.
2. **Proper sanitation** — Reduces disease-causing organisms in animal housing.
3. **Quarantine** — Prevents newly introduced or suspected animals from spreading diseases.
4. **Proper nutrition** — Improves the animals' ability to resist diseases.
5. **Parasite control** — Reduces internal and external parasite infestation.
6. **Regular veterinary examination** — Allows early detection and treatment of diseases.
7. **Proper disposal of waste** — Reduces contamination and spread of disease.

(3 marks)

c) Factors considered when constructing livestock housing

Any three:

- Adequate space
- Proper ventilation
- Good drainage
- Availability of clean water
- Protection from extreme weather
- Security
- Ease of cleaning
- Proper lighting
- Availability of construction materials
- Cost of construction
- Accessibility

(3 marks)

d)

1. **Rabbit** — New Zealand White
2. **Goat** — Toggenburg
3. **Cow** — Friesian

19.

a) Uses of farm tools

Any four:

- **Wheelbarrow** — Used for transporting materials such as manure, soil and harvested produce.
- **Watering can** — Used for watering crops, especially seedlings.
- **Rake** — Used for collecting debris and levelling soil.
- **Pruning saw** — Used for cutting larger branches during pruning.
- **Jembe** — Used for digging, loosening soil, making planting holes and weeding.

(4 marks)

b) Practices for prolonging the useful life of tools

Any three:

- Clean tools after use.
- Dry tools properly before storage.
- Sharpen cutting tools regularly.
- Oil metallic parts to prevent rusting.
- Repair damaged tools promptly.
- Store tools in a dry, secure place.
- Use each tool for its intended purpose.
- Paint exposed metallic surfaces where appropriate.

(3 marks)

c) Advantages of agricultural technology

Any three:

- Increases production.
- Saves labour.
- Saves time.
- Improves efficiency.
- Reduces production costs.
- Improves quality of agricultural products.
- Enables precision in farm operations.
- Reduces post-harvest losses.
- Makes large-scale production possible.

(3 marks)

20.

a) Profit calculation

Total revenue = KSh 20,000

Total cost = KSh 12,000

Therefore:

Profit = Total revenue − Total cost

Profit = 20,000 − 12,000

Profit = KSh 8,000

(2 marks)

b) Factors affecting profitability

Any three:

1. **Cost of inputs** — High input costs reduce profit.

2. **Market price** — Higher selling prices increase revenue and profit.
3. **Production level** — Higher yields can increase total sales.
4. **Pests and diseases** — Reduce production and increase control costs.
5. **Weather conditions** — Drought or excessive rainfall can reduce yields.
6. **Labour costs** — High labour expenses reduce net profit.
7. **Transportation costs** — High transport costs reduce returns.
8. **Market demand** — Strong demand can improve selling prices.

(3 marks)

c) Ways of adding value to tomatoes

Any three:

- Processing tomatoes into tomato sauce.
- Making tomato paste.
- Producing tomato juice.
- Drying tomatoes.
- Canning tomatoes.
- Packaging tomatoes attractively.
- Sorting and grading according to quality and size.

(3 marks)

d) Qualities of successful agricultural entrepreneurs

Any two:

- Creativity
- Innovation
- Hard work
- Persistence
- Risk-taking ability
- Good decision-making
- Good financial management
- Good communication skills
- Ability to identify business opportunities

(2 marks)

GRADE 10 AVIATION TECHNOLOGY

MARKING SCHEME

SECTION A: 30 MARKS

1. Define aviation technology. (2 marks)

Aviation technology is the application of scientific knowledge, skills, tools and techniques in the design, construction, operation and maintenance of aircraft and aviation systems.
(2 marks)

2. State two advantages of air transport. (2 marks)

- It is fast over long distances.
- It can reach remote areas that may be difficult to access by road or rail.
- It is suitable for transporting people and high-value/perishable goods over long distances.
  (Any 2 × 1 = 2 marks)

3. Give two examples of heavier-than-air aircraft. (2 marks)

- Aeroplane/aircraft
- Helicopter
- Glider
- Drone
  (Any 2 × 1 = 2 marks)

4. State two characteristics of a good aviation professional. (2 marks)

- Discipline
- Responsibility
- Alertness
- Teamwork
- Good communication skills
- Attention to detail

- Ability to follow safety procedures
  (Any 2 × 1 = 2 marks)

5. Give two causes of accidents in an aviation workshop. (2 marks)

- Failure to use PPE.
- Improper use of tools and equipment.
- Poor housekeeping.
- Ignoring safety procedures.
- Faulty equipment.
- Carelessness.
  (Any 2 × 1 = 2 marks)

6. State two purposes of safety signs. (2 marks)

- To warn people about hazards.
- To provide safety instructions.
- To indicate prohibited actions.
- To identify emergency facilities or exits.
  (Any 2 × 1 = 2 marks)

7. Name two types of PPE used in an aviation workshop. (2 marks)

- Safety goggles.
- Safety boots.
- Protective overalls.
- Gloves.
- Ear protection.
- Safety helmet.
  (Any 2 × 1 = 2 marks)

8. State two functions of the aircraft cockpit. (2 marks)

- Provides space for the pilot and flight crew.
- Houses flight controls and instruments.
- Enables the crew to monitor and control the aircraft.
  (Any 2 × 1 = 2 marks)

9. Name two primary flight control surfaces. (2 marks)

- Ailerons
- Elevators
- Rudder
  (Any 2 × 1 = 2 marks)

10. State two functions of the aircraft tail assembly. (2 marks)

- Provides stability.
- Helps control the aircraft's direction and attitude.
- Houses flight-control surfaces such as the rudder and elevators.
  (Any 2 × 1 = 2 marks)

11. Give two examples of materials used in aircraft construction. (2 marks)

- Aluminium alloys
- Steel

- Titanium
- Composite materials
- Fibre-reinforced plastics
  (Any 2 × 1 = 2 marks)

12. State two factors considered when selecting aircraft construction materials. (2 marks)

- Strength
- Weight
- Corrosion resistance
- Durability
- Heat/temperature resistance
- Cost
- Ease of manufacture
  (Any 2 × 1 = 2 marks)

13. Name two tools used for cutting materials. (2 marks)

- Hacksaw
- Tin snips/aviation snips
- Saw
- Shears
  (Any 2 × 1 = 2 marks)

14. State two functions of an airport runway. (2 marks)

- Provides a prepared surface for aircraft take-off.
- Provides a prepared surface for aircraft landing.
  (2 marks)

15. Give two services provided by an airport to passengers. (2 marks)

- Passenger check-in.
- Baggage handling.
- Security screening.
- Boarding services.
- Passenger information services.
- Immigration/customs services where applicable.
  (Any 2 × 1 = 2 marks)

SECTION B: 50 MARKS

16.

(a) State two early attempts at human flight. (2 marks)

- Hot-air balloons.
- Gliders.
- Kites.
- Airships.
  (Any 2 × 1 = 2 marks)

(b) Name two pioneers associated with the development of powered flight. (2 marks)

- Orville Wright

- Wilbur Wright
  (2 marks)

Other historically appropriate pioneers may be accepted where relevant.

(c) Explain three factors that contributed to the development of modern aviation technology. (3 marks)

- **Advancement in engine technology:** Development of more powerful and efficient engines made sustained flight possible.
- **Improvement in aerodynamics:** Research into lift, drag and aircraft shapes improved aircraft performance.
- **Development of new materials:** Lightweight and strong materials improved aircraft strength and efficiency.
- **Advancement in electronics:** Modern navigation, communication and control systems have improved aircraft operations.
- **Improved manufacturing technology:** More accurate methods of producing aircraft components have improved reliability and safety.

(Any 3 × 1 = 3 marks)

(d) State three benefits of aviation to the Kenyan economy and society. (3 marks)

- Facilitates passenger transportation.
- Supports tourism.
- Enables transportation of cargo and perishable goods.
- Creates employment.
- Facilitates medical evacuation.
- Supports trade and international business.
- Assists in disaster management and humanitarian operations.
  (Any 3 × 1 = 3 marks)

17.

(a) Identify three safety hazards. (3 marks)

- Grinding without safety goggles.
- Loose tools scattered around the workbench.
- Damaged electrical power cable.
  (3 marks)

(b) Give one corrective measure for each hazard. (3 marks)

Hazard	Corrective measure
Grinding without goggles	Wear appropriate eye protection/safety goggles.
Loose tools	Arrange and store tools properly after use.
Damaged electrical cable	Remove the equipment from service and have the cable repaired/replaced by a competent person.

(3 marks)

(c) Explain two reasons why housekeeping is important. (2 marks)

- Prevents trips, falls and other accidents.
- Keeps tools and equipment organised and easily accessible.
- Reduces the risk of fire and other workplace hazards.

- Improves efficiency and productivity.
  (Any 2 × 1 = 2 marks)

(d) State two procedures when using electrical equipment. (2 marks)

- Inspect equipment and cables before use.
- Do not use damaged electrical equipment.
- Ensure hands and the working area are dry where appropriate.
- Switch off and disconnect equipment before maintenance or adjustment.
- Use equipment according to manufacturer's/safety instructions.
  (Any 2 × 1 = 2 marks)

18.

(a) Name the aircraft components.

(i) Contains the cockpit, passengers and cargo:
Fuselage — 1 mark

(ii) Produces aerodynamic lift:
Wings — 1 mark

(iii) Houses the rudder and elevators:
Empennage/tail assembly — 1 mark

(iv) Supports the aircraft on the ground:
Landing gear/undercarriage — 1 mark

(b) State the function of each flight-control surface.

(i) Aileron — (2 marks)

- Controls **roll** about the longitudinal axis.
- Helps the aircraft bank to the left or right.

(2 marks)

(ii) Elevator — (2 marks)

- Controls **pitch** about the lateral/transverse axis.
- Causes the aircraft nose to move upward or downward.

(2 marks)

(iii) Rudder — (2 marks)

- Controls **yaw** about the vertical axis.
- Moves the aircraft nose to the left or right.

(2 marks)

19.

(a) State two properties that make aluminium suitable for aircraft construction. (2 marks)

- Lightweight.
- Good strength-to-weight ratio.
- Good corrosion resistance.
- Relatively easy to form and fabricate.
  (Any 2 × 1 = 2 marks)

(b) Differentiate between a measuring tool and a marking-out tool. (2 marks)

- **Measuring tool:** Used to determine or compare dimensions such as length, width, depth or diameter.
- **Marking-out tool:** Used to make lines, points or reference marks on a workpiece before cutting, drilling or shaping.
  (2 marks)

(c) Give two examples of measuring tools. (2 marks)

- Steel rule/ruler
- Vernier caliper
- Tape measure
- Micrometer
  (Any 2 × 1 = 2 marks)

(d) Give two examples of marking-out tools. (2 marks)

- Scriber
- Try square
- Marking gauge
- Centre punch
- Divider
  (Any 2 × 1 = 2 marks)

(e) State two reasons for using accurate dimensions in technical drawings. (2 marks)

- Ensures components are manufactured to the required size.
- Ensures components fit together correctly.
- Reduces errors and material wastage.
- Improves safety and quality.
  (Any 2 × 1 = 2 marks)

20.

(a) State two pieces of information a pilot may obtain before departure. (2 marks)

- Weather information/forecast.
- Runway condition.
- Air traffic information.
- Flight plan information.
- NOTAMs/operational notices.
  (Any 2 × 1 = 2 marks)

(b) Explain two ways in which wind affects aircraft operations. (4 marks)

1. Headwind:
A headwind can increase the aircraft's airspeed relative to the ground and generally reduce the ground distance required for take-off and landing.

2. Crosswind:
A strong crosswind can make take-off and landing more difficult and requires appropriate pilot control and operational limits.

3. Tailwind:
A tailwind can increase take-off and landing ground distance and may therefore be restricted by operational procedures.

4. Strong/gusty winds:
May make aircraft handling more difficult and can cause turbulence.

(Any 2 well-explained × 2 = 4 marks)

(c) State two reasons why air traffic control is important. (2 marks)

- Helps maintain safe separation between aircraft.
- Coordinates aircraft movements during take-off, landing and taxiing.
- Provides pilots with relevant traffic and operational information.
- Helps manage the orderly flow of air traffic.
  (Any 2 × 1 = 2 marks)

(d) State two activities carried out during passenger handling. (2 marks)

- Passenger check-in.
- Baggage acceptance and handling.
- Security screening.
- Boarding.
- Verification of travel documents.
  (Any 2 × 1 = 2 marks)

GRADE 10 BIOLOGY

MARKING SCHEME / ANSWERS

SECTION A: 30 MARKS

1.

a) Any one characteristic:

- Respiration.
- Nutrition.
- Growth.
- Reproduction.
- Excretion.
- Movement.
- Sensitivity/response to stimuli. **(1)**

b) Any two:

- To observe organisms in their natural environment.
- To study their adaptations.
- To identify different organisms.
- To understand interactions among organisms.
- To collect specimens for scientific study. **(2)**

2.

a) Preservation is the process of **preventing a biological specimen from decomposing or deteriorating so that it remains suitable for study**. **(1)**

b) Any one:

- Use of preservatives such as formalin.
- Refrigeration/freezing.
- Drying.
- Pressing, especially for plant specimens. **(1)**

3.

a) **Nucleus. (1)**

b) Any one:

- Provides support and protection.
- Maintains the shape of the cell.
- Prevents the cell from bursting when it takes in excess water. **(1)**

c) **Chloroplast. (1)**

4.

a) To **stain the cells and make their structures more visible under the microscope**. **(1)**

b) It increases the **contrast between cell structures and the surrounding material**, making them easier to see. **(1)**

5.

a) **Reducing sugars. (1)**

b) A positive result produces a colour ranging from **green/yellow/orange to brick-red precipitate**, depending on the amount of reducing sugar present. **(1)**

6.

a) Photosynthesis requires **light energy**, so without light the plant cannot manufacture sufficient food. **(1)**

b) **Chlorophyll. (1)**

7.

a) Any one:

- Nitrogen.
- Phosphorus.
- Potassium.
- Magnesium.
- Calcium. **(1)**

b) Depends on the element named. Examples:

- **Nitrogen:** required for synthesis of proteins and chlorophyll.

- **Magnesium:** forms part of the chlorophyll molecule.
- **Phosphorus:** important in ATP and nucleic acids.
- **Potassium:** assists enzyme activity and general plant growth. **(1)**

8.

a) **Transpiration. (1)**

b) **Stomata. (1)**

9.

a) The heartbeat increases to **pump more blood and oxygen to actively respiring muscles and remove carbon dioxide more rapidly**. **(1)**

b) **Oxygen. (1)**

10.

a) **Aerobic respiration. (1)**

b) **Lactic acid. (1)**

11.

a) Any two:

- Vitamin A.
- Vitamin B.
- Vitamin C.
- Vitamin D.
- Vitamin E.
- Vitamin K. **(2)**

b) Vitamins help to **regulate body processes and maintain good health**. **(1)**

12.

Any three differences:

Diffusion	Osmosis
Movement of particles from a region of high concentration to low concentration	Movement of water molecules from a region of high water potential to low water potential
Can involve gases or dissolved substances	Involves water molecules only
Does not necessarily require a selectively permeable membrane	Requires a selectively permeable membrane
May occur in solids, liquids or gases	Occurs across a selectively permeable membrane

(3)

13.

a) Microscope parts

i. Eyepiece lens

- Magnifies the image formed by the objective lens.
- It is the lens through which the specimen is viewed. **(2)**

ii. Objective lens

- Magnifies the specimen.
- Provides different levels of magnification, depending on the objective used. **(2)**

b) Obtaining a clear image

Any three correct steps:

1. Place the prepared slide correctly on the microscope stage.
2. Secure it using the stage clips.
3. Start with the **low-power objective lens**.
4. Use the coarse adjustment knob to bring the specimen into approximate focus.
5. Use the fine adjustment knob to obtain a sharp image.
6. Move to a higher-power objective if greater magnification is required and use fine adjustment to refocus. **(3)**

c) Precautions

Any three:

- Carry the microscope with both hands.
- Do not touch lenses with fingers.
- Clean lenses using lens paper.
- Begin observation using the low-power objective.
- Avoid forcing the adjustment knobs.
- Handle glass slides carefully.
- Keep the microscope on a stable surface. **(3)**

14.

a)

Cell differentiation is the **process by which unspecialised cells develop specialised structures and functions**. **(2)**

b) Red blood cell adaptations

Any two:

- Contains **haemoglobin**, which combines with oxygen.
- Has a **biconcave shape**, giving a large surface area for gas exchange.
- Lacks a nucleus, providing more space for haemoglobin.
- Is small and flexible, allowing it to pass through narrow capillaries. **(2)**

c)

i. Crenation — (2 marks)
Crenation occurs when a **red blood cell loses water by osmosis** when placed in a **hypertonic solution**, causing it to **shrink and develop a wrinkled/spiky appearance**.

ii. Haemolysis — (2 marks)
Haemolysis occurs when a **red blood cell gains too much water by osmosis** when placed in a **hypotonic solution**, causing the cell to **swell and burst**.

d)

Any two:

- Concentration gradient.
- Temperature.
- Surface area.
- Distance/thickness of the exchange surface.
- Size of particles. **(2)**

15.

a)

i. Carbohydrates: provide energy for body activities. **(1)**

ii. Proteins: growth and repair of body tissues. **(1)**

iii. Fats and oils: provide energy and help in insulation/protection of body organs. **(1)**

b) Importance of water

Any two:

- Acts as a solvent and medium for chemical reactions.
- Transports dissolved substances around the body.
- Helps regulate body temperature.
- Assists digestion.
- Helps remove waste products through urine and sweat. **(2)**

c) Test for starch

1. Place a small amount of the food sample on a white tile/test tube. **(1)**
2. Add a few drops of **iodine solution**. **(1)**
3. A **blue-black colour** indicates the presence of starch. **(1)**

d)

Any two:

- Malnutrition.
- Obesity.
- Deficiency diseases.
- Poor growth and development.
- Reduced immunity.
- Anaemia, depending on the nutrient lacking. **(2)**

16.

a)

Mineral deficiencies may:

- Cause **abnormal or stunted growth**.
- Cause symptoms such as **yellowing of leaves (chlorosis)**, poor root development or poor flowering, depending on the mineral deficient. **(2)**

b) Role of xylem

- Transports **water** from the roots to the stem and leaves. **(1)**
- Transports **dissolved mineral salts** from the roots to other parts of the plant. **(1)**
- Provides mechanical support because xylem vessels have lignified walls. **(1)**

c)

- Water moves from the soil into the root hair cell by **osmosis**.
- This occurs because the water potential of the soil solution is higher than that of the root hair cell sap. **(2)**

d)

Any three:

- Temperature.
- Light intensity.
- Wind/air movement.
- Humidity.
- Availability of water.
- Leaf surface area. **(3)**

17.

a)

Increase:

32 − 18 = 14 breaths per minute.

Answer: 14 breaths per minute. (1)

b)

The breathing rate increased because:

- Muscles require more energy during running.
- Increased energy demand increases the rate of respiration.
- More oxygen is required and more carbon dioxide is produced.
- Therefore, breathing becomes faster and deeper to increase gaseous exchange. **(3)**

c)

Gaseous exchange: movement of respiratory gases, mainly oxygen and carbon dioxide, between an organism and its environment or between exchange surfaces and body fluids.

Respiration: a series of chemical reactions in cells that release energy from food substances. **(2)**

d) Adaptations of alveoli

Any two:

- They have a **large surface area**, allowing rapid gaseous exchange.
- Their walls are **very thin**, providing a short diffusion distance.
- They have a rich supply of blood capillaries.
- They have a moist surface to allow gases to dissolve.
- Continuous ventilation maintains concentration gradients. **(2)**

e)

Any two:

- The muscles require less oxygen as exercise stops.
- Less carbon dioxide is produced.
- The need to remove excess carbon dioxide decreases.
- Lactic acid/oxygen debt is gradually dealt with.
- The heart and respiratory systems gradually return to their resting rates. **(2)**

GRADE 10 – BUILDING CONSTRUCTION

MARKING SCHEME

1.

a) Identify the materials:

A. **Stone** – 1 mark
B. **Brick** – 1 mark
C. **Aggregate/ballast** – 1 mark

b) One use of stone:

- Construction of walls.
- Construction of foundations.
- Construction of retaining walls.
- Road works.

Any one – 1 mark

c) One property of good building stone:

- Strong.
- Durable.
- Hard.
- Resistant to weathering.
- Free from cracks.
- Has good appearance.

Any one – 1 mark

2.

a) The component identified as **FOOTING** is the **foundation footing/base**.
1 mark

b) Two functions of a foundation/footing:

- Transfers building loads safely to the ground.
- Distributes the load over a larger area of soil.
- Provides a stable base for the building.
- Prevents excessive settlement.

Any 2 × 1 = 2 marks

c) Two factors influencing foundation depth:

- Type and bearing capacity of soil.
- Load/weight of the building.
- Depth of firm bearing stratum.
- Groundwater conditions.
- Nature of the site.

Any 2 × 1 = 2 marks

3.

a) Identification:

The intended setting-out tools are:

A. **Ranging rod** – 1 mark
B. **Builder's square** – 1 mark

Accept another correctly identified setting-out tool where the learner's identification matches the intended illustration.

b) Use of a builder's square:

- To set out/check a right angle of **90°**.
- To ensure corners of a building are square.

1 mark

Total: 3 marks

4.

Actual length = **6 m = 600 cm**

Drawing length = **600 mm = 60 cm**

Therefore:

Scale=60600\text{Scale}=\frac{60}{600} =110=\frac{1}{10}

Scale = 1:10

2 marks

Note: The original question illustration states 600 mm while the text states 6 metres. Therefore, the correct interpretation is that the drawing line is **600 mm**, giving a scale of **1:10**.

b) Importance of scale:

- Allows large objects/buildings to be represented on a manageable drawing sheet.
- Maintains proportional accuracy.
- Enables actual dimensions to be determined from the drawing.

Any 1 – 1 mark

5.

a) The drawing is a **front elevation**.
1 mark

b) Information obtained from an elevation:

- External appearance of the building.
- Position and size of doors.
- Position and size of windows.
- Height of the building.
- Roof shape.
- Vertical dimensions.
- External finishes.

Any 2 × 1 = 2 marks

6.

a) Identification of the four basic materials:

A. **Cement** – 1 mark

B. **Sand/fine aggregate** – 1 mark
C. **Coarse aggregate/ballast** – 1 mark
D. **Water** – 1 mark

b) Purpose of water:

- It reacts with cement during hydration.
- It makes the mixture workable.
- It assists in bonding the ingredients.

Any one – 1 mark

7.

a) Excavation of a foundation trench.
1 mark

b) One danger:

- Collapse of trench sides.
- Burial of workers.
- Injury or death.
- Falling materials into the excavation.

Any one – 1 mark

c) One method of preventing collapse:

- Timbering/shoring.
- Proper battering/sloping of sides.
- Providing suitable excavation support.

Any one – 1 mark

8.

a) The support is **timbering/shoring of an excavation**.
1 mark

b) Two reasons for timbering:

- Prevents collapse of excavation sides.
- Protects workers from being buried or injured.
- Maintains the shape and dimensions of the trench.
- Improves safety during excavation.

Any 2 × 1 = 2 marks

Total: 3 marks

9.

a) The shaded layer is **hardcore**.
1 mark

b) One purpose of hardcore:

- Provides a firm and stable base for the floor slab.
- Helps raise the floor level.
- Improves drainage and reduces settlement when properly selected and compacted.

Any one – 1 mark

c) Reason for compacting ground:

- To reduce settlement.
- To provide a firm and stable base.
- To increase the bearing capacity of the ground.

Any one – 1 mark

10.

a) Identification:

A. **Elbow**– 1 mark
B. **Union** – 1 mark
C. **Cross** – 1 mark

b) Function of a tee:

- Provides a branch connection from the main pipe.
- Divides/directs water into another pipe.

1 mark

c) One material used for water pipes:

- PVC/uPVC.
- Copper.
- PEX.
- Galvanised steel.

Any one – 1 mark

11.

a) Four site-preparation activities

1. **Clearing vegetation** – removing bushes, grass and unwanted trees.
2. **Removing tree stumps and roots** – clearing obstacles that may interfere with construction.
3. **Removing stones and debris** – preparing a clean construction area.
4. **Demolition/removal of unwanted structures** where applicable.
5. **Levelling/grading** the site.
6. **Disposal of waste** to an appropriate location.

Any 4 × 1 = 4 marks

b) Three factors to investigate before construction

1. **Soil condition** – determine the type and bearing capacity of soil.
2. **Site levels/topography** – establish slopes and levels of the land.
3. **Drainage/groundwater** – determine water conditions and drainage requirements.
4. **Access** – determine how workers, materials and equipment will reach the site.
5. **Availability of services** – establish water, electricity and other services.
6. **Boundaries** – establish the correct site boundaries.

Any 3 × 1 = 3 marks

c) Three reasons for accurate setting out

- Ensures the building is positioned correctly on the site.
- Ensures correct building dimensions.
- Ensures walls are correctly aligned.
- Ensures corners are accurately positioned.
- Prevents costly construction errors.
- Ensures the building follows the approved drawings.

Any 3 × 1 = 3 marks

Question 11 = 10 marks

12.

a)

The shape is a **rectangle/rectangular building**.
1 mark

b) Four steps in setting out

A suitable procedure is:

1. **Study the building plan** and establish the required dimensions.
2. **Establish a baseline** from which the building will be measured.
3. **Fix pegs** at the required positions.
4. **Stretch string lines** between the pegs to indicate wall positions.
5. Establish right angles using a **builder's square or 3:4:5 method**.
6. Measure the required length and width.
7. Check the diagonals to ensure the corners are correctly positioned.
8. Fix profile boards outside the excavation area.

Any 4 × 1 = 4 marks

c) Three methods/tools for accurate positioning

- Builder's square.
- Tape measure.
- 3:4:5 method.
- Theodolite.
- Ranging rods.

- Spirit level.
- Optical/laser level.
- Checking diagonals.

Any 3 × 1 = 3 marks

d) Two checks before excavation

- Check the building dimensions against the working drawing.
- Check that corners are square/right-angled.
- Check the diagonals.
- Check alignment and levels.
- Confirm the building is correctly positioned within the site boundaries.

Any 2 × 1 = 2 marks

Question 12 = 10 marks

13.

a)

The drawing is a **building plan/floor plan**.
1 mark

b) Four features visible

Any four:

- Bedrooms.
- Living room.
- Kitchen.
- Internal walls.
- External walls.
- Room divisions.
- Dimensions.
- Door/window positions.

Any 4 × 1 = 4 marks

c) Scale calculation

Actual length = **8 metres**

Convert to centimetres:

8m=800cm8m = 800cm

Drawing length = **16 cm**

Scale=16800\text{Scale}=\frac{16}{800} =150=\frac{1}{50}

Scale = 1:50

Working – 2 marks
Answer – 1 mark

d) Two reasons for including dimensions

- To indicate the actual size of building components.
- To guide the construction team during construction.
- To enable accurate setting out.
- To reduce construction errors.
- To indicate distances between different building elements.

Any 2 × 1 = 2 marks

Question 13 = 10 marks

14.

a) Four components shown

Any four:

i. **Wall** – 1 mark
ii. **Foundation wall** – 1 mark
iii. **Footing** – 1 mark
iv. **Hardcore** – 1 mark
v. **Compacted ground** – 1 mark

Any 4 = 4 marks

b) Three functions of a foundation

- Transfers the load of the building safely to the ground.
- Distributes the building load over a suitable area.
- Provides stability to the building.
- Reduces excessive settlement.
- Prevents movement caused by unstable ground.

Any 3 × 1 = 3 marks

c) Three requirements of a good ground floor

- It should be **strong** enough to carry imposed loads.
- It should be **level and even**.
- It should be **durable**.
- It should resist **ground moisture**.
- It should be properly **compacted and supported**.
- It should have an appropriate finish.
- It should provide suitable thermal insulation where required.

Any 3 × 1 = 3 marks

Question 14 = 10 marks

15.

a) Four operations involved in producing good concrete

1. **Batching/measuring** the ingredients in the required proportions.
2. **Mixing** cement, sand and aggregate thoroughly.
3. **Adding water** in the correct quantity.
4. **Placing** the concrete in the required position.
5. **Compacting** the concrete to remove trapped air.
6. **Finishing** the surface.
7. **Curing** the concrete adequately.

Any 4 × 1 = 4 marks

b) Three functions of a valve

- Controls the flow of water.
- Stops the flow of water when necessary.
- Allows sections of the plumbing system to be isolated for maintenance or repair.
- Regulates water flow in suitable applications.

Any 3 × 1 = 3 marks

c) Three plumbing safety precautions

- Wear appropriate PPE such as gloves and safety footwear.
- Use the correct tools for each task.
- Turn off the water supply before repairing or modifying pipes.
- Keep the working area clean and free from hazards.
- Handle sharp tools carefully.
- Ensure electrical equipment is kept away from water.
- Inspect tools before use.

Any 3 × 1 = 3 marks

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

TERM 3: DECEMBER ASSESSMENT 2026

GRADE 10 – BUSINESS STUDIES

Time: 2 Hours



LEARNER'S DETAILS

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

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

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

INSTRUCTIONS TO CANDIDATES

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

FOR OFFICIAL USE ONLY (EXAMINER'S USE)

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) Define the term **business environment**. **(1 mark)**

_____

_____

b) State **two internal factors** that may influence the operations of a business. **(2 marks)**

i. _____

_____

ii. _____

_____

c) State **two external factors** that may influence a business. **(2 marks)**

i. _____

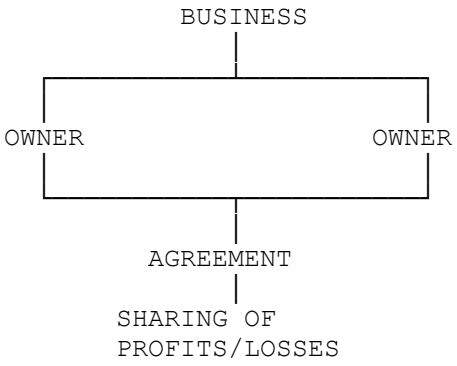
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ii. _____

_____

2. Study the illustration below and answer the questions that follow.

SENIOR SCHOOL **KCBE** **DECEMBER ASSIGNMENT**



a) Identify the form of business ownership represented by the diagram. **(1 mark)**

_____

b) State **two features** of this form of business ownership. **(2 marks)**

i. _____

_____

ii. _____

_____

c) State **two sources from which the owners may obtain capital** for the business. **(2 marks)**

i. _____

_____

ii. _____

_____

3. a) What is meant by **trade**? **(1 mark)**

_____

_____

b) Distinguish between **home trade** and **foreign trade**. **(2 marks)**

_____

_____

c) State **two benefits of trade to consumers**. **(2 marks)**

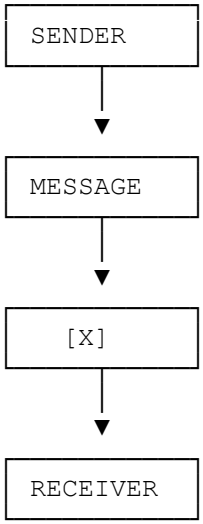
i. _____

_____

ii. _____

_____

4. Study the communication process below.



a) Identify the communication element represented by **X**. **(1 mark)**

_____

b) State **two methods of communication** that a business may use. **(2 marks)**

i. _____

_____

ii. _____

_____

c) State **two qualities of effective business communication**. **(2 marks)**

i. _____

_____

ii. _____

_____

5. a) Define **insurance**. **(1 mark)**

_____

_____

b) State **two principles of insurance**. **(2 marks)**

i. _____

_____

ii. _____

_____

c) Give **two reasons why businesses take insurance policies**. **(2 marks)**

i. _____

_____

ii. _____

_____

6. A learner wants to establish a small poultry enterprise but does not have enough money to purchase the required equipment and chicks.

a) State **two internal sources of business finance**. **(2 marks)**

i. _____

_____

ii. _____

_____

b) State **two external sources of business finance**. **(2 marks)**

i. _____

_____

ii. _____

_____

c) State **one factor the learner should consider before obtaining a loan**. **(1 mark)**

_____

_____

SECTION B: 50 MARKS

Answer ALL questions in this section.

7. Read the case study below and answer the questions that follow.

Tumaini General Store operates in a growing town. Recently, the number of customers has increased because a new residential estate has been established nearby. However, the business has also experienced increased competition. The cost of transporting goods has risen, and customers increasingly prefer businesses that accept digital payments. The owner is considering introducing electronic payment facilities and expanding the range of goods sold.

a) Identify **two opportunities** available to Tumaini General Store from the case study. **(2 marks)**

i. _____

_____

ii. _____

_____

b) Identify **two challenges** facing the business. **(2 marks)**

i. _____

_____

ii. _____

_____

c) Explain **three ways in which technology can improve the operations of the business**. **(3 marks)**

i. _____

_____

ii. _____

_____

iii. _____

_____

d) Explain **three ways in which competition may affect the business**. **(3 marks)**

i. _____

_____

ii. _____

_____

iii. _____

_____

8. A group of learners observes that many people in their community travel a long distance to obtain freshly baked bread and other bakery products. They decide to establish a small bakery.

Before starting the business, they investigate customer needs, competitors, availability of raw materials, required capital and the possible selling price.

a) Identify **two sources of business ideas** demonstrated in the case. **(2 marks)**

i. _____

_____

ii. _____

_____

b) Explain **three factors the learners should consider when assessing the viability of the bakery business**. **(3 marks)**

i. _____

_____

ii. _____

_____

iii. _____

_____

c) State **two risks that the learners may face when starting the business**. **(2 marks)**

i. _____

_____

ii. _____

_____

d) Explain **three ways of reducing business risks**. **(3 marks)**

i. _____

_____

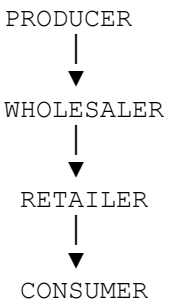
ii. _____

_____

iii. _____

_____

9. Study the distribution chain below.



a) Identify the **type of distribution channel** represented by the diagram. **(1 mark)**

_____

b) State **two functions of a wholesaler** in this channel. **(2 marks)**

i. _____

_____

ii. _____

_____

c) State **two functions of a retailer**. **(2 marks)**

i. _____

_____

ii. _____

_____

d) Explain **three advantages of using intermediaries in the distribution of goods**. **(3 marks)**

i. _____

_____

ii. _____

_____

iii. _____

_____

e) State **two factors that may determine the choice of a distribution channel**. **(2 marks)**

i. _____

_____

ii. _____

_____

10. A hardware business owns a building, delivery vehicle, stock and business equipment. The owner is concerned about possible losses arising from fire, theft and road accidents involving the delivery vehicle.

a) Identify **three risks** faced by the business from the case study. **(3 marks)**

i. _____

_____

ii. _____

_____

iii. _____

_____

b) Explain **two ways through which insurance can help the business**. **(2 marks)**

i. _____

_____

ii. _____

_____

c) Distinguish between **life insurance** and **general insurance**. **(2 marks)**

_____

_____

_____

d) Explain **three factors that may influence the amount of insurance premium paid by a business**. **(3 marks)**

i. _____

_____

ii. _____

_____

iii. _____

_____

11. Mwangaza Traders provided the following information for the month of August:

Item	Amount (KSh)
Capital introduced by owner	100,000
Sales revenue	180,000
Purchases	90,000
Rent	15,000
Wages	20,000
Transport expenses	8,000
Electricity	7,000

a) Calculate the **total operating expenses**, excluding purchases. **(2 marks)**

b) Calculate the **total expenditure including purchases**. **(2 marks)**

c) Assuming that the cost of goods sold is KSh 90,000, calculate the **gross profit**. **(2 marks)**

d) Calculate the **net profit**. **(2 marks)**

e) State **two ways in which the business can improve its profitability**. **(2 marks)**

i. _____

ii. _____

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GRADE 10 BUSINESS STUDIES

END OF YEAR EXAMINATION – 2026

MARKING SCHEME / ANSWERS

SECTION A: 30 MARKS

1.

a) Define business environment.

Business environment is the **sum total of internal and external factors that affect the operations and performance of a business**.
(1 mark)

b) Two internal factors:

- Availability of capital.
- Management policies.
- Employees/workforce.
- Business objectives.
- Business culture.
- Technology owned by the business.

Any 2 × 1 = 2 marks

c) Two external factors:

- Government policies.
- Competition.
- Economic conditions.
- Technology.

- Customers.
- Suppliers.
- Political conditions.
- Natural environment.

Any 2 × 1 = 2 marks

2.

a) Identify the form of business ownership.

Partnership.
(1 mark)

b) Two features:

- It is owned by **two or more persons**.
- Partners contribute capital to the business.
- Profits and losses are shared among the partners.
- Partners participate in management.
- The business is normally formed through an agreement.

Any 2 × 1 = 2 marks

c) Two sources of capital:

- Contributions from partners.
- Loans from financial institutions.
- Retained profits.
- Credit from suppliers.
- Sale of personal assets by partners.

Any 2 × 1 = 2 marks

3.

a) Meaning of trade.

Trade is the **buying and selling of goods and services**.
(1 mark)

b) Difference between home trade and foreign trade.

Home trade:
Buying and selling of goods and services **within the boundaries of a country**.

Foreign trade:
Buying and selling of goods and services **between different countries**.

2 marks

c) Benefits of trade to consumers:

- Provides a variety of goods and services.

- Makes goods available where they are needed.
- Encourages competitive prices.
- Improves the quality of goods and services.
- Creates employment opportunities.
- Enables consumers to access goods not locally produced.

Any 2 × 1 = 2 marks

4.

a) Identify X.

Medium/channel of communication.
(1 mark)

b) Two methods of communication:

- Oral communication.
- Written communication.
- Electronic/digital communication.
- Visual communication.
- Non-verbal communication.

Any 2 × 1 = 2 marks

c) Qualities of effective business communication:

- Clear.
- Accurate.
- Complete.
- Concise.
- Timely.
- Relevant.
- Courteous.
- Simple/easy to understand.

Any 2 × 1 = 2 marks

5.

a) Define insurance.

Insurance is a **contract in which an insurer agrees to compensate an insured person against specified risks in return for payment of a premium**.
(1 mark)

b) Two principles of insurance:

- Principle of utmost good faith.
- Principle of insurable interest.
- Principle of indemnity.
- Principle of contribution.
- Principle of subrogation.
- Principle of proximate cause.

Any 2 × 1 = 2 marks

c) Reasons businesses take insurance:

- To obtain compensation when insured risks occur.
- To protect business assets.
- To reduce financial losses.
- To provide security against unforeseen events.
- To enable business continuity after certain losses.

Any 2 × 1 = 2 marks

6.

a) Two internal sources:

- Personal savings.
- Retained profits.
- Sale of surplus business assets.
- Additional capital from the owner.

Any 2 × 1 = 2 marks

b) Two external sources:

- Bank loans.
- Overdrafts.
- Trade credit.
- Loans from microfinance institutions.
- Capital from external investors.
- Hire purchase.

Any 2 × 1 = 2 marks

c) One factor to consider before obtaining a loan:

- Interest rate charged.
- Ability to repay the loan.
- Repayment period.
- Security/collateral required.
- Purpose of the loan.
- Cost of obtaining the loan.

Any 1 × 1 = 1 mark

SECTION B: 50 MARKS

7.

a) Two opportunities available to Tumaini General Store:

- Increased number of customers due to the new residential estate.
- Opportunity to introduce electronic/digital payment facilities.
- Opportunity to expand the range of goods.

- Growing market in the area.

Any 2 × 1 = 2 marks

b) Two challenges:

- Increased competition.
- Rising transport costs.
- Changing customer preferences.

Any 2 × 1 = 2 marks

c) Ways technology can improve business operations:

1. **Electronic payments** make transactions faster and more convenient for customers.
2. **Computerised stock control** helps the business monitor stock levels and reduce shortages.
3. **Digital marketing** enables the business to advertise its goods to a wider market.
4. Technology can improve **communication with suppliers and customers**.
5. Computerised accounting can make **record keeping more accurate and efficient**.

Any 3 × 1 = 3 marks

d) Effects of competition on the business:

1. It may force the business to **reduce prices** to retain customers.
2. It may encourage the business to **improve the quality of goods and services**.
3. It may encourage innovation and introduction of new products.
4. It may reduce the business's market share.
5. It may reduce profit margins.
6. It may encourage better customer service.

Any 3 × 1 = 3 marks

8.

a) Two sources of business ideas:

- **Customer needs/problems** — people travel long distances to obtain bakery products.
- **Market research/observation** — the learners investigated customer needs and competitors.
- Personal observation of opportunities in the community.

Any 2 × 1 = 2 marks

b) Factors to consider when assessing viability:

- **Market demand:** There should be enough customers willing to buy the bakery products.
- **Availability of capital:** The learners should have enough funds to establish and operate the business.
- **Availability and cost of raw materials:** Flour, sugar and other ingredients should be readily available at reasonable prices.
- **Level of competition:** They should determine whether existing bakeries can limit their sales.
- **Expected profitability:** Expected revenue should be sufficient to cover costs and generate profit.
- **Availability of appropriate skills and labour.**

Any 3 × 1 = 3 marks

c) Two risks:

- Loss of capital.
- Low demand for products.
- Strong competition.
- Increase in the cost of raw materials.
- Damage/spoilage of bakery products.
- Fire or theft.
- Failure of the business to make sufficient profit.

Any 2 × 1 = 2 marks

d) Ways of reducing business risks:

- Take appropriate **insurance policies**.
- Conduct thorough **market research** before investing.
- Prepare and follow a realistic **business plan**.
- Maintain proper financial records.
- Diversify products.
- Maintain good quality to retain customers.
- Control unnecessary expenditure.
- Put appropriate security measures in place.

Any 3 × 1 = 3 marks

9.

a) Type of distribution channel:

Producer → Wholesaler → Retailer → Consumer

This is an **indirect channel of distribution involving a wholesaler and retailer**.

(1 mark)

b) Functions of a wholesaler:

- Buys goods in large quantities from producers.
- Breaks bulk into smaller quantities for retailers.
- Stores goods.
- Provides information about market conditions.
- Transports/distributes goods to retailers.
- Provides credit to retailers where applicable.

Any 2 × 1 = 2 marks

c) Functions of a retailer:

- Sells goods in small quantities to consumers.
- Provides a variety of goods to consumers.
- Stores goods until they are required.
- Provides information about products.
- May offer after-sales services.
- Brings goods closer to consumers.

Any 2 × 1 = 2 marks

d) Advantages of using intermediaries:

1. **They reduce the burden on producers** by undertaking distribution activities.
2. **They provide storage facilities**, allowing goods to be kept until required.
3. **They bring goods closer to consumers**, making them easily accessible.
4. They help producers reach a wider market.
5. They may provide transport services.
6. They provide market information to producers.

Any 3 × 1 = 3 marks

e) Factors determining choice of distribution channel:

- Nature of the product.
- Size and geographical distribution of the market.
- Cost of distribution.
- Availability of intermediaries.
- Perishability of the product.
- Size of the business.
- Nature of competition.

Any 2 × 1 = 2 marks

10.

a) Three risks:

- **Fire**.
- **Theft**.
- **Road accidents involving the delivery vehicle**.

3 × 1 = 3 marks

b) Ways insurance helps the business:

- Provides **financial compensation** when an insured loss occurs.
- Protects business assets against specified risks.
- Enables the business to recover from major losses.
- Provides financial security and confidence to the business owner.

Any 2 × 1 = 2 marks

c) Difference:

Life insurance:
Provides protection against risks associated with **human life**, such as death or certain life-related events.

General insurance:
Provides protection against **non-life risks**, such as fire, theft, motor accidents and property damage.

2 marks

d) Factors influencing insurance premium:

- **Value of the property/asset:** More valuable assets generally attract higher premiums.
- **Level of risk:** Assets or activities with greater risks may attract higher premiums.
- **Type of insurance policy:** Different types of cover have different premiums.
- **Past claims history:** Frequent claims may result in higher premiums.
- **Security measures:** Better security may reduce the level of risk and premium.
- **Amount of cover required.**

Any 3 × 1 = 3 marks

11.

Information given:

- Capital = KSh 100,000
- Sales = KSh 180,000
- Purchases = KSh 90,000
- Rent = KSh 15,000
- Wages = KSh 20,000
- Transport = KSh 8,000
- Electricity = KSh 7,000

a) Total operating expenses, excluding purchases

15,000 + 20,000 + 8,000 + 7,000 =KSh 50,000

(2 marks)

b) Total expenditure including purchases

90,000 + 50,000 =KSh 140,000

(2 marks)

c) Gross profit

Gross Profit=Sales−Cost of Goods Sold =180,000−90,000= Sh 90,000

(2 marks)

d) Net profit

Net Profit=Gross Profit−Operating Expenses = 90,000 - 50,000 =KSh 40,000

(2 marks)

e) Ways of improving profitability:

- Increase sales through effective marketing.
- Reduce unnecessary operating expenses.
- Negotiate lower prices with suppliers.

- Reduce wastage.
- Improve productivity.
- Increase the range of profitable products.
- Improve customer service to increase repeat purchases.
- Use resources efficiently.

Any 2 × 1 = 2 marks

KENYA CERTIFICATE OF BASIC EDUCATION

SENIOR SCHOOL ASSESSMENT

TERM 3: DECEMBER ASSIGNMENT 2026

GRADE 10 – CHEMISTRY

Time: 2 Hours

LEARNER'S DETAILS

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

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

School Code: _____. Signature: _____.

INSTRUCTIONS TO CANDIDATES

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

FOR OFFICIAL USE ONLY (EXAMINER'S USE)

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)

INSTRUCTIONS TO LEARNERS

1. This paper consists of **TWO SECTIONS: A and B**.
2. Answer **ALL questions**.
3. **Section A carries 30 marks** while **Section B carries 50 marks**.
4. All questions are **structured**; there are **no multiple-choice questions**.
5. Show all working for calculations.
6. Write chemical formulae and equations correctly and balance equations where necessary.
7. Study the diagrams carefully before answering questions based on them.
8. Use appropriate scientific terminology throughout your answers.
9. Non-programmable calculators may be used where necessary.

SECTION A: 30 MARKS

Answer ALL questions in this section.

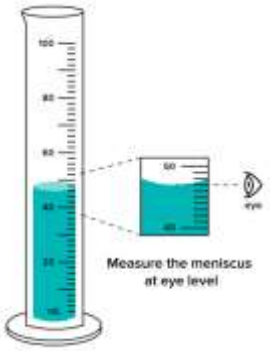
1. A mixture contains **iron filings, sand and common salt**.

a) Name the method that can be used to separate the iron filings from the mixture. **(1 mark)**

b) State the method used to separate sand from the salt solution after adding water to the remaining mixture. **(1 mark)**

c) Name the method that can be used to obtain solid sodium chloride from the salt solution. **(1 mark)**

2. A learner measured the volume of a liquid using a measuring cylinder as shown below.



a) What should the learner do to obtain an accurate reading of the volume? **(1 mark)**

_____

b) At which part of the meniscus should the reading be taken for water? **(1 mark)**

_____

c) State the appropriate position of the learner's eye when taking the reading. **(1 mark)**

_____

3. Study the apparatus represented below.



a) Identify the apparatus represented above. _____ **(1 mark)**

b) State one use of the apparatus in the chemistry laboratory. **(1 mark)**

_____

c) Name one other apparatus that can be used to measure a fixed volume of a liquid accurately. **(1 mark)**

_____

4. An atom of element **A** has **13 protons, 13 electrons and 14 neutrons**.

a) State the atomic number of element A. **(1 mark)**

_____

b) Calculate the mass number of element A. **(1 mark)**

c) Write the electronic arrangement of element A. **(1 mark)**

_____

5. Consider the following elements:

Element	Electronic arrangement
P	2.1
Q	2.8.2
R	2.8.6

a) Which element belongs to Group 1? **(1 mark)**

_____

b) Which element belongs to Group 16? **(1 mark)**

_____

c) State the period occupied by element Q. **(1 mark)**

_____

6. Calcium has the electronic arrangement **2.8.8.2**, while oxygen has the electronic arrangement **2.6**.

a) State the number of electrons calcium loses when forming an ion. **(1 mark)**

_____

b) State the number of electrons oxygen gains when forming an ion. **(1 mark)**

_____

c) Write the formula of the compound formed between calcium and oxygen. **(1 mark)**

_____

7. A learner tested three solutions using litmus paper.

Solution	Effect on blue litmus	Effect on red litmus
A	Turns red	No change
B	No change	Turns blue
C	No change	No change

a) Identify solution A as acidic, alkaline or neutral. **(1 mark)**

_____

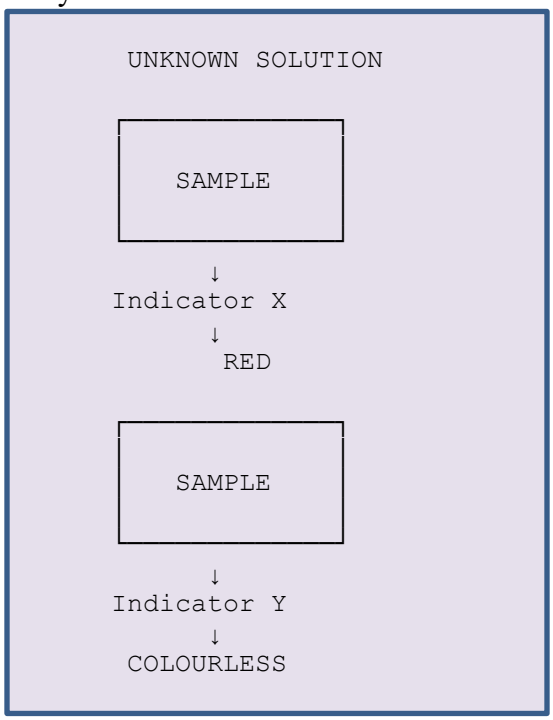
b) Identify solution B as acidic, alkaline or neutral. **(1 mark)**

_____

c) Identify solution C as acidic, alkaline or neutral. **(1 mark)**

_____

8. Study the observations obtained when two indicators were added to an unknown solution.



a) If indicator X is phenolphthalein, state whether the observation is possible. Give a reason. **(1 mark)**

_____

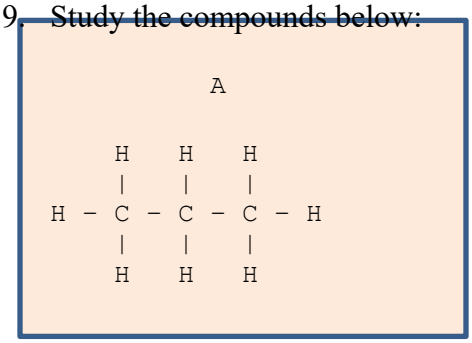
b) State the colour of phenolphthalein in an alkaline solution. **(1 mark)**

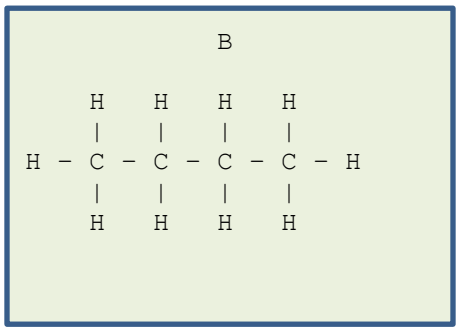
_____

c) Name one indicator that may give a red colour in a strongly acidic solution. **(1 mark)**

_____

9. Study the compounds below:





a) Name compound A. **(1 mark)**

_____

b) Name compound B. **(1 mark)**

_____

c) State the homologous series to which the two compounds belong. **(1 mark)**

_____

10. A learner burns a hydrocarbon in a plentiful supply of air.

a) Name the type of combustion expected when sufficient oxygen is available. **(1 mark)**

_____

b) Name the two main products formed during complete combustion of a hydrocarbon. **(1 mark)**

_____

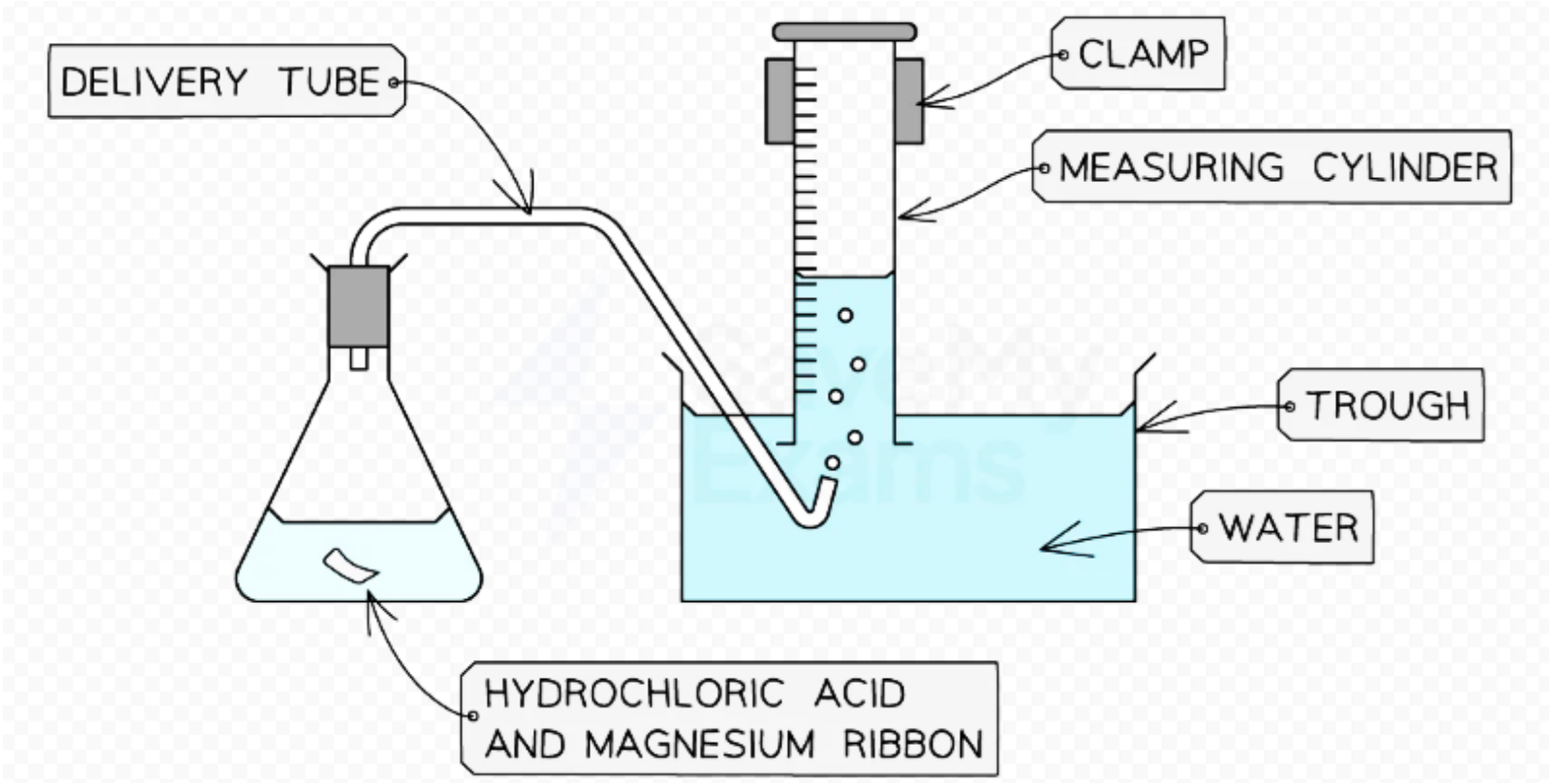
c) State one environmental effect of carbon dioxide released during combustion. **(1 mark)**

_____

SECTION B:50 MARKS

Answer ALL questions in this section.

11. A learner carried out an experiment in which **magnesium ribbon** was placed in dilute hydrochloric acid. Bubbles of gas were produced and the magnesium gradually disappeared.



a) Name the gas produced. _____ **(1 mark)**

b) Describe a chemical test for the gas identified in (a). **(2 marks)**

_____

_____

____

c) State two observations made during the reaction apart from the production of gas. **(2 marks)**

_____

_____

____

d) Write a balanced chemical equation for the reaction. **(2 marks)**

_____

_____

____

e) Name the salt formed in the reaction. **(1 mark)**

_____

f) Explain why magnesium ribbon is cleaned before it is placed in the acid. **(2 marks)**

12. A farmer obtained a soil sample that was found to be excessively acidic. The farmer was advised to apply an appropriate substance to reduce the acidity.

a) What is meant by an acid? **(1 mark)**

b) Name one substance that can be used to reduce excessive acidity in agricultural soil. **(1 mark)**

c) Explain how the substance named in (b) helps to reduce soil acidity. **(2 marks)**

d) Hydrochloric acid reacts with calcium hydroxide. Write a balanced chemical equation for the reaction. **(2 marks)**

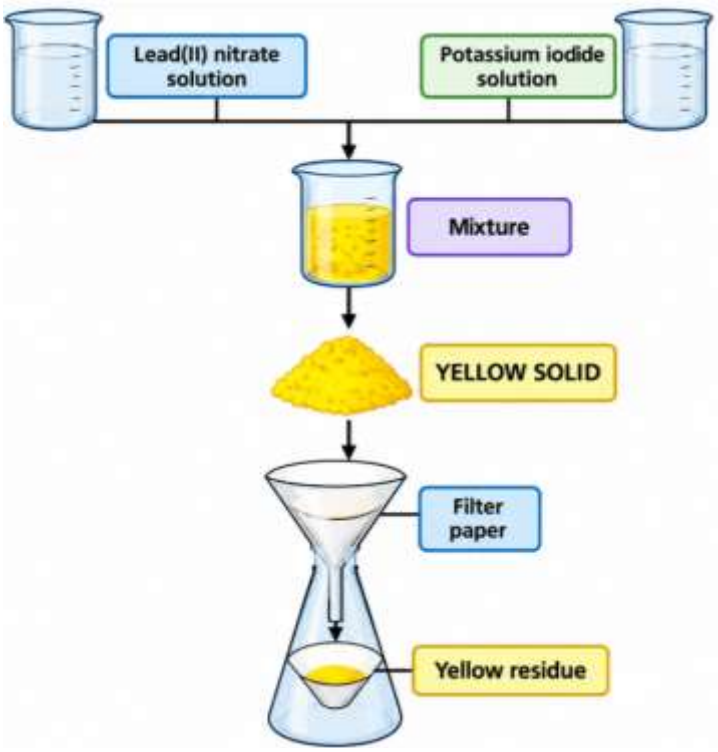
e) Name the type of reaction represented by the equation in (d). **(1 mark)**

f) Name the salt formed in the reaction. **(1 mark)**

g) State two practical applications of neutralisation reactions. **(2 marks)**

13. A learner was instructed to prepare **lead(II) iodide** by mixing suitable solutions of lead(II) nitrate and potassium iodide.

The process is represented below.



a) Name the yellow solid formed. _____ **(1 mark)**

b) Name the method used to separate the solid from the mixture. _____ **(1 mark)**

c) State the purpose of the filter paper. **(1 mark)**

_____

d) Write a balanced chemical equation for the reaction using chemical formulae. **(3 marks)**

_____

_____

e) Explain why the reaction is classified as a precipitation reaction. **(2 marks)**

_____

____f) State one way of obtaining a cleaner sample of the solid product. **(1 mark)**

14. The following compounds are represented by their molecular formulae:

- A – C_2H_6
- B – C_3H_6
- C – C_4H_{10}
- D – C_5H_{10}

a) Identify the compounds that are alkanes. **(2 marks)**

b) Identify the compounds that could represent alkenes. **(2 marks)**

c) State the general formula of alkanes. **(1 mark)**

____d) State the general formula of alkenes. **(1 mark)**

____e) Give the names of compounds A and C. **(2 marks)**

A: _____

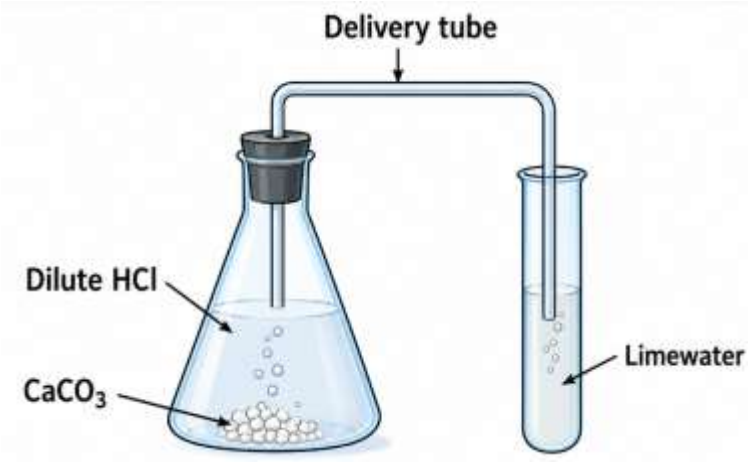
C: _____

f) State one chemical test that can be used to distinguish an alkene from an alkane. **(1 mark)**

____g) State the expected observation when the test in (f) is carried out on an alkene. **(1 mark)**

15. A Grade 10 learner was investigating the reaction between an acid and a carbonate. The learner placed a small amount of calcium carbonate in a flask and added dilute hydrochloric acid.

The experimental arrangement is represented below.



a) Name the gas produced in the flask. _____**(1 mark)**

b) State the chemical test for the gas using limewater. **(2 marks)**

_____

_____

____**c)** State the observation expected in the limewater test. **(1 mark)**

_____

_____

____**d)** Write a balanced chemical equation for the reaction between calcium carbonate and hydrochloric acid. **(3 marks)**

_____

_____

____**e)** Name the salt formed in the reaction. **(1 mark)**

_____

f) State two safety precautions the learner should observe during the experiment. **(2 marks)**

_____

_____

____

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GRADE 10 CHEMISTRY

MARKING SCHEME

SECTION A

1:

a) Magnetic separation / use of a magnet.
(1 mark)

b) Filtration.
(1 mark)

c) Evaporation to dryness / crystallisation.
(1 mark)

2:

a) Place the measuring cylinder on a **level surface** before taking the reading.
(1 mark)

b) The **bottom of the meniscus**.
(1 mark)

c) The eye should be **at the same level as the meniscus** to avoid parallax error.
(1 mark)

3:

a) Measuring cylinder.
(1 mark)

b) Used to **measure the volume of liquids**.
(1 mark)

c) Pipette or **burette**.
(1 mark)

4:

Given:

- Protons = 13
- Electrons = 13
- Neutrons = 14

a) Atomic number = **13**.
(1 mark)

b)

Mass number=protons + neutrons=13+14=27

Answer: 27
(1 mark)

c) Electronic arrangement = **2.8.3**.
(1 mark)

5:

a) Element **P**.
(1 mark)

b) Element **R**.
(1 mark)

c) Element Q has three occupied electron shells.

Period 3.
(1 mark)

6:

a) Calcium loses **2 electrons**.
(1 mark)

b) Oxygen gains **2 electrons**.

(1 mark)

c) Formula of the compound:

CaO\boxed{CaO}

(1 mark)

7:

a) Solution A – **Acidic**.
(1 mark)

b) Solution B – **Alkaline**.
(1 mark)

c) Solution C – **Neutral**.
(1 mark)

8:

a) No. Phenolphthalein is **colourless in an acidic solution** and pink in an alkaline solution.
(1 mark)

b) Pink.
(1 mark)

c) Methyl orange.
(1 mark)

9:

a) Compound A – **Propane**. **(1 mark)**

b) Compound B – **Butane**. **(1 mark)**

c) Alkanes. **(1 mark)**

10:

a) Complete combustion. **(1 mark)**

b) Carbon dioxide and water.
(1 mark)

c) Any one:

- Carbon dioxide contributes to **global warming**.
- It contributes to the **greenhouse effect**.
- It contributes to **climate change**.

(1 mark)

SECTION B

11:

a) Gas produced

Hydrogen gas (H_2).
(1 mark)

b) Test for hydrogen

Collect the gas in a test tube and introduce a **lighted splint**.

A **squeaky pop** is heard if the gas is hydrogen.
(2 marks)

c) Two observations

Any two:

- Magnesium ribbon gradually disappears/dissolves.
- Effervescence/bubbles are produced.
- The reaction produces heat; the mixture becomes warm.
- The magnesium reacts vigorously with the acid.

(2 marks)

d) Balanced equation

$Mg+2HCl \rightarrow MgCl_2+H_2$

(2 marks)

e) Salt formed

Magnesium chloride ($MgCl_2$). (1 mark)

f) Reason for cleaning magnesium

Magnesium ribbon is cleaned to **remove the oxide coating** on its surface so that the magnesium can react directly with the hydrochloric acid.
(2 marks)

12:

a) Meaning of an acid

An acid is a substance that **produces hydrogen ions (H^+) in aqueous solution**.

(1 mark)

b) Substance used to reduce soil acidity

Any one:

- **Calcium carbonate**
- Calcium oxide
- Calcium hydroxide
- Agricultural lime

(1 mark)

c) How it reduces acidity

The alkaline substance **reacts with and neutralises the acids in the soil**, thereby increasing the soil pH towards neutrality.
(2 marks)

d) Balanced equation

$2HCl + Ca(OH)_2 \rightarrow CaCl_2 + 2H_2O$

(2 marks)

e) Type of reaction

Neutralisation reaction.
(1 mark)

f) Salt formed

Calcium chloride ($CaCl_2$).
(1 mark)

g) Applications of neutralisation

Any two:

- Treating **acidic soils** using lime.
- Treating **indigestion/heartburn** using antacids.
- Treating **acidic industrial waste**.
- Correcting the pH of water.
- Treating acidic conditions in lakes or other water bodies.

(2 marks)

13:

a) Yellow solid

Lead(II) iodide (PbI_2).
(1 mark)

b) Separation method

Filtration.
(1 mark)

c) Purpose of filter paper

It allows the **liquid/filtrate to pass through while retaining the insoluble lead(II) iodide precipitate**.
(1 mark)

d) Balanced chemical equation

$Pb(NO_3)_2(aq)+2KI(aq)\rightarrow PbI_2(s)+2KNO_3(aq)$

(3 marks)

e) Why it is a precipitation reaction

It is a precipitation reaction because **two soluble solutions react to form an insoluble solid, lead(II) iodide, which separates from the solution as a precipitate**.
(2 marks)

f) Obtaining a cleaner sample

Wash the precipitate with distilled/deionised water before drying it.
(1 mark)

14:

Given:

- A – C_2H_6
- B – C_3H_6
- C – C_4H_{10}
- D – C_5H_{10}

a) Compounds that are alkanes

A and C.
(2 marks)

b) Compounds that could represent alkenes

B and D.
(2 marks)

c) General formula of alkanes

CnH2n+2

(1 mark)

d) General formula of alkenes

C_nH_{2n}

(1 mark)

e) Names of A and C

A = **Ethane**
C = **Butane**

(2 marks)

f) Chemical test for an alkene

Add **bromine water** to the substance and shake.

(1 mark)

g) Observation with an alkene

The **orange/brown colour of bromine water is decolourised**.
(1 mark)

15:

a) Gas produced

Carbon dioxide (CO_2).
(1 mark)

b) Chemical test

Pass the gas through **limewater (calcium hydroxide solution)**.
(2 marks)

c) Observation

The limewater **turns milky/cloudy**.
(1 mark)

d) Balanced chemical equation

$CaCO_3+2HCl \rightarrow CaCl_2+H_2O+CO_2$

(3 marks)

e) Salt formed

Calcium chloride ($CaCl_2$).
(1 mark)

f) Safety precautions

Any two:

- Wear **safety goggles**.
- Wear a **laboratory coat**.
- Handle dilute hydrochloric acid carefully.
- Avoid contact of the acid with the skin and eyes.
- Do not inhale gases directly.
- Handle glassware carefully.
- Carry out the experiment in a well-ventilated laboratory.

(2 marks)

GRADE 10 COMPUTER SCIENCE

MARKING SCHEME

SECTION A: 30 MARKS

1:

(5 marks)

a) **Hardware** is the physical/tangible parts of a computer system that can be seen and touched.
(1 mark)

b) Examples of input devices:

- Keyboard
- Mouse
- Scanner
- Microphone
- Webcam

Any two – 2 marks

c) Example of an output device:

- Monitor
- Printer
- Speakers
- Projector

Any one – 1 mark

d) A storage device is used to **store data, programs and information for future use**.
(1 mark)

2:

Q – **speaker**. **(1 mark)**

b) R – **scanner (1 mark)**

c) S – **camcorder (1 mark)**

d) T – **Mouse**. **(1 mark)**

e) Use of a mouse:

- Used to point to, select and open items on the computer screen.
- Used to control the pointer/cursor.

Any one – 1 mark

3:

(5 marks)

a) **Computer memory** is the part of a computer system used to hold data and instructions needed for processing.
(1 mark)

b)

RAM	ROM
RAM is temporary/volatile memory.	ROM is generally permanent/non-volatile memory.
Its contents are lost when power is switched off.	Its contents are retained when power is switched off.

(2 marks)

c) Examples of secondary storage:

- Hard disk drive (HDD)
- Solid-state drive (SSD)
- Flash disk
- Memory card
- Optical disc

Any two – 2 marks

4:

(5 marks)

a) **Data** refers to raw facts and figures that have not been processed.
(1 mark)

b) **Information** is processed data that has meaning and can be used to make decisions.
(1 mark)

c) Total:

65+72+48+80+75=340

Total = 340 marks
(1 mark)

d) Average:

340\5=68

Average = 68 marks

(2 marks)

5:

(5 marks)

a) The base of the binary number system is **2**.
(1 mark)

b) The two binary digits are **0 and 1**.
(1 mark)

c) Convert **11001_2** to decimal:

$$11001_2 = (1 \times 2^4) + (1 \times 2^3) + (0 \times 2^2) + (0 \times 2^1) + (1 \times 2^0)$$
$$= 16 + 8 + 0 + 0 + 1$$
$$= \boxed{25_{10}}$$

(2 marks)

d) Binary numbers are used to **represent and process data in digital computer systems**.
(1 mark)

6:

(5 marks)

a) **Computer ethics** refers to moral principles and rules that guide responsible and acceptable use of computers and information technology.
(1 mark)

b) Examples of unethical computer use:

- Hacking into another person's account.
- Accessing information without permission.
- Software piracy.
- Cyberbullying.
- Spreading malware.
- Stealing or altering data.

Any two – 2 marks

c) Measures for protecting personal data:

- Use strong passwords.
- Enable two-factor authentication.
- Keep antivirus/security software updated.
- Avoid sharing passwords.
- Back up important data.
- Encrypt sensitive information.

- Lock the computer when not in use.

Any two – 2 marks

SECTION B: 50 MARKS

7:

(10 marks)

a) Component A – **Central Processing Unit (CPU)**.
(1 mark)

b) Three major stages of the information processing cycle:

1. **Input**
2. **Processing**
3. **Output**

(3 marks)

c) Examples of input devices:

- Keyboard
- Mouse
- Scanner
- Microphone
- Webcam

Any two – 2 marks

d) Examples of output devices:

- Monitor
- Printer
- Speakers
- Projector

Any two – 2 marks

e) Reasons for storing information:

- For future reference and retrieval.
- To maintain records.
- To allow information to be reused.
- To provide backup copies.
- For future processing and analysis.

Any two – 2 marks

8:

(10 marks)

a) The interface described is a **Graphical User Interface (GUI)**.
(1 mark)

b) Features of a GUI:

- Icons
- Windows
- Menus
- Pointers
- Buttons
- Taskbars
- Dialog boxes

Any three – 3 marks

c) Functions of an operating system:

1. File management:
Organises, stores, retrieves and manages files and folders.

2. Memory management:
Allocates and manages computer memory among running programs.

3. Device management:
Controls and coordinates hardware devices such as printers, keyboards and storage devices.

Other acceptable functions: process management, security management, user-interface provision and input/output management.

Any three well-explained – 3 marks

d)

System software: Software that manages and controls computer hardware and provides a platform for application software to operate.

Application software: Software designed to enable users to perform specific tasks.

(2 marks)

e) Example: **Microsoft Word**.
(1 mark)

9:

(10 marks)

a) The symbol used to represent a decision is the **diamond symbol**.
(1 mark)

b) The condition tested is:

MARK ≥ 50

or

Whether the mark is greater than or equal to 50.

(1 mark)

c) Algorithm:

1. **Start.**
2. **Input the learner's mark.**
3. **Check whether the mark is greater than or equal to 50.**
4. **If the mark is 50 or above, display "PASS"; otherwise display "FAIL".**
5. **End.**

(4 marks)

d) If the learner scores **67**:

PASS
(1 mark)

e) If the learner scores **42**:

FAIL
(1 mark)

f) Algorithms are important because they:

- Provide a logical step-by-step solution to a problem.
- Guide programmers when writing programs.
- Make problems easier to understand and solve.
- Help identify errors before coding.

Any two – 2 marks

10:

(10 marks)

a) Input variable: **number**.
(1 mark)

b) Control structure: **Selection/decision control structure (IF...ELSE IF...ELSE)**.
(1 mark)

c) For **25**:

Since 25 > 0,

Output: Positive
(1 mark)

d) For **-8**:

Since -8 < 0,

Output: Negative
(1 mark)

e) For **0**:

The number is neither greater nor less than zero.

Output: Zero
(1 mark)

f) An **IF...ELSE statement** allows a program to make a decision by testing a condition and executing different instructions depending on whether the condition is true or false.
(2 marks)

g) Common programming errors:

- **Syntax errors** – errors caused by violating the rules of a programming language.
- **Logic errors** – errors that cause a program to produce incorrect results.
- **Runtime errors** – errors that occur while a program is executing.

3 marks

11:

(10 marks)

a) The most suitable network is a **Local Area Network (LAN)**.
(1 mark)

b) Advantages of networking the computers:

- Enables sharing of files and information.
- Allows sharing of printers and other hardware.
- Enables sharing of an Internet connection.
- Facilitates communication and collaboration.
- Makes centralised management possible.

Any two – 2 marks

c) A **network switch** connects computers and other devices within the local network and forwards data to the appropriate device.
(2 marks)

d) A **router** connects the school's LAN to other networks, such as the Internet, and directs data packets between the networks.
(2 marks)

e) Practices for protecting the school's network:

- Use strong passwords.
- Change default passwords on network devices.

- Install and update firewall/security software.
- Keep operating systems and applications updated.
- Restrict access to authorised users.
- Use secure Wi-Fi encryption.
- Avoid sharing network passwords unnecessarily.
- Regularly monitor network activity.

Any three – 3 marks

GRADE 10 CORE MATHEMATICS

MARKING SCHEME

SECTION A — 30 MARKS

1.

Evaluate:

$$\frac{27^{-\frac{2}{3}} \times 16^{\frac{3}{4}}}{\sqrt{81^{-1}} \times 2^{-3}}$$

Solution

$$27^{-\frac{2}{3}} = (3^3)^{-\frac{2}{3}} = 3^{-2} = \frac{1}{9}$$

(1 mark)

$$16^{\frac{3}{4}} = (2^4)^{\frac{3}{4}} = 2^3 = 8$$

(1 mark)

Therefore,

$$\text{Numerator} = \frac{1}{9} \times 8 = \frac{8}{9}$$

For the denominator,

$$\sqrt{81^{-1}} = \sqrt{\frac{1}{81}} = \frac{1}{9}$$

(1 mark)

$$2^{-3} = \frac{1}{8}$$

Hence,

Denominator $= \frac{1}{9} \times \frac{1}{8} = \frac{1}{72}$ **(1 mark)**

Therefore,

$$\frac{\frac{8}{9}}{\frac{1}{72}} = \frac{8}{9} \times 72$$

$$= 8 \times 8 = 64$$

$$\boxed{64 = 2^6}$$

(1 mark)

Answer: $\boxed{64}$ **or** $\boxed{2^6}$

2.

Evaluate:

$$x = \sqrt[3]{\frac{0.0456 \times (18.42)^2}{672.3}}$$

using four-figure logarithm tables.

Solution

Taking logarithms:

$$\log x = \frac{1}{3}[\log(0.0456) + 2\log(18.42) - \log(672.3)]$$

From the four-figure logarithm tables:

$$\log(0.0456) = \overline{2}.6590$$

(1 mark)

$$\log(18.42) = 1.2653$$

Therefore,

$$2\log(18.42) = 2(1.2653) = 2.5306$$

(1 mark)

$$\log(672.3) = 2.8276$$

(1 mark)

Hence,

$$\log x = \frac{1}{3}[\overline{2}.6590 + 2.5306 - 2.8276]$$

$$\overline{2}.6590 + 2.5306 = 0.1896$$

Thus,

$$\log x = \frac{1}{3}(0.1896 - 2.8276)$$

$$= \frac{1}{3}(-2.6380)$$

$$= -0.8793$$

or, in bar notation,

$$\log x = \bar{1}.1207$$

(1 mark)

Taking antilogarithms:

$$x = \text{antilog}(\bar{1}.1207)$$

$$\boxed{x = 0.1320}$$

(1 mark)

3.

Given:

$$\boldsymbol{OA} = \begin{pmatrix} -3 \\ 4 \end{pmatrix}, \qquad \boldsymbol{OB} = \begin{pmatrix} 9 \\ -12 \end{pmatrix}$$

(a) Magnitude of $\boldsymbol{AB}$

$$\boldsymbol{AB} = \boldsymbol{OB} - \boldsymbol{OA}$$

$$= \begin{pmatrix} 9 \\ -12 \end{pmatrix} - \begin{pmatrix} -3 \\ 4 \end{pmatrix}$$

$$= \begin{pmatrix} 12 \\ -16 \end{pmatrix}$$

(1 mark)

Therefore,

$$|\boldsymbol{AB}| = \sqrt{12^2 + (-16)^2}$$

$$= \sqrt{144 + 256}$$

$$= \sqrt{400}$$

$$\boxed{|\boldsymbol{AB}| = 20 \text{ units}}$$

(2 marks)

(b) Position Vector of Midpoint $\boldsymbol{M}$

$$\boldsymbol{OM} = \frac{\boldsymbol{OA} + \boldsymbol{OB}}{2}$$

$$= \frac{1}{2}\left[\begin{pmatrix} -3 \\ 4 \end{pmatrix} + \begin{pmatrix} 9 \\ -12 \end{pmatrix}\right]$$

$$= \frac{1}{2}\begin{pmatrix} 6 \\ -8 \end{pmatrix}$$

$$= \begin{pmatrix} 3 \\ -4 \end{pmatrix}$$

$$\boxed{\boldsymbol{OM} = \begin{pmatrix} 3 \\ -4 \end{pmatrix}}$$

(2 marks)

4.

Given:

$$a = 13, \qquad b = 14, \qquad c = 15$$

(a) Heron's Formula

The semi-perimeter is:

$$s = \frac{13 + 14 + 15}{2}$$

$$s = \frac{42}{2} = 21 \text{ m}$$

(1 mark)

Using Heron's Formula,

$$A = \sqrt{s(s-a)(s-b)(s-c)}$$

$$A = \sqrt{21(21-13)(21-14)(21-15)}$$

$$= \sqrt{21 \times 8 \times 7 \times 6}$$

$$= \sqrt{7056}$$

$$\boxed{A = 84 \text{ m}^2}$$

(2 marks)

(b) Included Angle $\angle PQR$

Using:

$$A = \frac{1}{2}(PQ)(QR)\sin\angle PQR$$

$$84 = \frac{1}{2}(13)(14)\sin\angle PQR$$

$$84 = 91\sin\angle PQR$$

Therefore,

$$\sin\angle PQR = \frac{84}{91}$$

$$\sin\angle PQR \approx 0.9231$$

(1 mark)

Hence,

$$\angle PQR = \sin^{-1}(0.9231)$$

$$\boxed{\angle PQR \approx 67.38^\circ}$$

(1 mark)

5.

Centre of rotation:

$$P(2,-1)$$

For a 90° counterclockwise rotation about (h,k):

$$(x,y) \to (-(y-k)+h,\ (x-h)+k)$$

where

$$h = 2, \qquad k = -1.$$

Point $A(1,2)$

$$A' = (-(2-(-1))+2,\ (1-2)-1)$$

$$= (-3+2,-1-1)$$

$$\boxed{A' = (-1,-2)}$$

(2 marks)

Point $B(4,2)$

$$B' = (-(2-(-1))+2,\ (4-2)-1)$$

$$= (-3+2,2-1)$$

$$\boxed{B' = (-1,1)}$$

(1.5 marks)

Point $C(1,6)$

$$C' = (-(6-(-1))+2,\ (1-2)-1)$$

$$= (-7+2,-1-1)$$

$$\boxed{C' = (-5,-2)}$$

(1.5 marks)

6.

(a) Tree Diagram — 2 Marks

Prime numbers on a fair six-sided die are:

$$\{2,3,5\}$$

Therefore,

$$P(\text{Prime}) = \frac{3}{6} = \frac{1}{2}$$

Non-prime outcomes are:

$$\{1,4,6\}$$

Thus,

$$P(\text{Non-prime}) = \frac{3}{6} = \frac{1}{2}$$

For Bag A:

$$P(R|A) = \frac{4}{10} = \frac{2}{5}$$

$$P(B|A) = \frac{6}{10} = \frac{3}{5}$$

For Bag B:

$$P(R|B) = \frac{5}{8}$$

$$P(B|B) = \frac{3}{8}$$

Award 2 marks for a correctly drawn and labelled tree diagram.

(b) Probability of a Red Marble

$$P(R) = P(\text{Prime})P(R|A) + P(\text{Non-prime})P(R|B)$$

$$= \frac{1}{2} \times \frac{2}{5} + \frac{1}{2} \times \frac{5}{8}$$

(1 mark)

$$= \frac{1}{5} + \frac{5}{16}$$

$$= \frac{16}{80} + \frac{25}{80}$$

$$= \boxed{\frac{41}{80}}$$

$$\boxed{P(R) = 0.5125}$$

(2 marks)

SECTION B — 50 MARKS

7.

Given:

$$X(2,3), \qquad Y(5,4), \qquad Z(3,7)$$

and the mirror line

$$y = 2x - 1.$$

(a) Reflection of X

Gradient of the mirror line:

$$m = 2$$

Therefore, the gradient of the perpendicular line is:

$$m_{\perp} = -\frac{1}{2}$$

(1 mark)

The perpendicular line through $X(2,3)$ is:

$$y - 3 = -\frac{1}{2}(x - 2)$$

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

(1 mark)

At $X(2,3)$,

$$y = 2(2) - 1 = 3$$

Therefore, X lies on the mirror line.

A point lying on the mirror line remains unchanged after reflection.

$$\boxed{X' = (2,3)}$$

(2 marks)

(b) Enlargement with $k = -2$

Reflection of $Y(5, 4)$

The reflected point is:

$$\boxed{Y' = (1,6)}$$

Since the centre of enlargement is $(0,0)$,

$$Y'' = -2\begin{pmatrix}1\\6\end{pmatrix}$$

$$\boxed{Y'' = (-2, -12)}$$

(1.5 marks)

Reflection of $Z(3, 7)$

$$\boxed{Z' = (7,5)}$$

Therefore,

$$Z'' = -2\begin{pmatrix}7\\5\end{pmatrix}$$

$$\boxed{Z'' = (-14,-10)}$$

(1.5 marks)

(c) Congruence

$$\boxed{\triangle XYZ \text{ is not congruent to } \triangle X''Y''Z''}$$

(1 mark)

Reflection is an isometry and therefore preserves lengths and angles.
However, the enlargement has scale factor:

$$|k| = 2$$

Therefore, all corresponding lengths are multiplied by 2, while corresponding areas are multiplied by

$$2^2 = 4.$$

Since the lengths are not preserved,

$$\boxed{\triangle XYZ \ncong \triangle X''Y''Z''}$$

(2 marks)

8.

Given:

$$R = 14 \text{ cm}, \qquad r = 7 \text{ cm}, \qquad \theta = 120^\circ$$

and

$$\pi = \frac{22}{7}.$$

(a) Area of Annular Sector

$$A = \frac{\theta}{360^\circ}\pi(R^2 - r^2)$$

$$= \frac{120}{360} \times \frac{22}{7}(14^2 - 7^2)$$

(1 mark)

$$= \frac{1}{3} \times \frac{22}{7}(196 - 49)$$

$$= \frac{1}{3} \times \frac{22}{7} \times 147$$

$$\boxed{A = 154 \text{ cm}^2}$$

(2 marks)

(b) Area of the Circular Segment

Area of the sector:

$$A_s = \frac{120}{360} \times \frac{22}{7} \times 7^2$$

$$= \frac{1}{3} \times \frac{22}{7} \times 49$$

$$\approx 51.33 \text{ cm}^2$$

(1 mark)

Area of the triangle:

$$A_t = \frac{1}{2} r^2 \sin 120°$$

$$= \frac{1}{2}(7^2)\left(\frac{\sqrt{3}}{2}\right)$$

$$\approx 21.22 \text{ cm}^2$$

(2 marks)

Therefore,

$$A_{\text{segment}} = A_s - A_t$$

$$= 51.33 - 21.22$$

$$\boxed{A_{\text{segment}} \approx 30.11 \text{ cm}^2}$$

(1 mark)

(c) Perimeter of the Annular Sector

Outer arc length:

$$L_o = \frac{120}{360} \times 2 \times \frac{22}{7} \times 14$$

$$= \frac{88}{3}$$

$$\approx 29.33 \text{ cm}$$

Inner arc length:

$$L_i = \frac{120}{360} \times 2 \times \frac{22}{7} \times 7$$

$$= \frac{44}{3}$$

$$\approx 14.67 \text{ cm}$$

(1 mark)

Two radial edges:

$$2(R - r) = 2(14 - 7) = 14 \text{ cm}$$

(1 mark)

Therefore,

$$P = 29.33 + 14.67 + 14$$

$$\boxed{P = 58 \text{ cm}}$$

(1 mark)

9.

(a) Frequency Table

Speed v	f	Midpoint x	$d = x - 65$	fd	Cumulative f
$40 \leq v < 50$	4	45	-20	-80	4
$50 \leq v < 60$	9	55	-10	-90	13
$60 \leq v < 70$	16	65	0	0	29
$70 \leq v < 80$	12	75	10	120	41
$80 \leq v < 90$	6	85	20	120	47
$90 \leq v < 100$	3	95	30	90	50
Total	**50**			**160**	

(2 marks)

(b) Estimated Mean

Using the assumed mean formula:

$$\bar{x} = A + \frac{\sum fd}{N}$$

where

$$A = 65, \qquad \sum fd = 160, \qquad N = 50.$$

$$\bar{x} = 65 + \frac{160}{50}$$

(2 marks)

$$= 65 + 3.2$$

$$\boxed{\bar{x} = 68.2 \text{ km/h}}$$

(2 marks)

(c) Modal Class and Median

The highest frequency is 16.

Therefore,

$$\boxed{\text{Modal class} = 60 \leq v < 70}$$

(1 mark)

Median position:

$$\frac{N}{2} = \frac{50}{2} = 25^{\text{th}} \text{ item}$$

The 25th item lies in:

$$60 \leq v < 70.$$

Using the interpolation formula:

$$\text{Median} = L + \left(\frac{\frac{N}{2} - CF}{f}\right)c$$

where

$$L = 60, \quad CF = 13, \quad f = 16, \quad c = 10.$$

$$\text{Median} = 60 + \left(\frac{25 - 13}{16}\right)10$$

(2 marks)

$$= 60 + \frac{12}{16} \times 10$$

$$= 60 + 7.5$$

$$\boxed{\text{Median} = 67.5 \text{ km/h}}$$

(1 mark)

10.

Given:

$$\boldsymbol{r}(t) = \begin{pmatrix} 3t - 2 \\ 4t + 1 \end{pmatrix}$$

(a) Displacement Vector

At $t = 1$:

$$\boldsymbol{r}(1) = \begin{pmatrix} 3(1) - 2 \\ 4(1) + 1 \end{pmatrix} = \begin{pmatrix} 1 \\ 5 \end{pmatrix}$$

At $t = 4$:

$$\boldsymbol{r}(4) = \begin{pmatrix} 3(4) - 2 \\ 4(4) + 1 \end{pmatrix} = \begin{pmatrix} 10 \\ 17 \end{pmatrix}$$

Therefore,

$$\Delta\boldsymbol{r} = \boldsymbol{r}(4) - \boldsymbol{r}(1)$$

$$= \begin{pmatrix} 10-1 \\ 17-5 \end{pmatrix}$$

$$\boxed{\Delta \boldsymbol{r} = \begin{pmatrix} 9 \\ 12 \end{pmatrix} \text{ nautical miles}}$$

(2 marks)

(b) Speed

Distance travelled:

$$|\Delta \boldsymbol{r}| = \sqrt{9^2 + 12^2}$$

$$= \sqrt{81 + 144}$$

$$= \sqrt{225} = 15 \text{ nautical miles}$$

(1.5 marks)

Time elapsed:

$$4 - 1 = 3 \text{ hours}$$

Therefore,

$$\text{Speed} = \frac{15}{3}$$

$$\boxed{\text{Speed} = 5 \text{ knots}}$$

(1.5 marks)

(c) Intersection of Paths

The second vessel has initial position:

$$\boldsymbol{P}_0 = \begin{pmatrix} 10 \\ 25 \end{pmatrix}$$

and velocity:

$$\boldsymbol{v}_2 = \begin{pmatrix} -1 \\ 2 \end{pmatrix}.$$

Therefore,

$$\boldsymbol{r}_2(t) = \begin{pmatrix} 10 \\ 25 \end{pmatrix} + t \begin{pmatrix} -1 \\ 2 \end{pmatrix}$$

$$= \begin{pmatrix} 10 - t \\ 25 + 2t \end{pmatrix}$$

(1 mark)

For the vessels to meet at the same time, both coordinates must be equal.
From the x-coordinates:

$$3t - 2 = 10 - t$$

$$4t = 12$$

$$t = 3 \text{ hours}$$

(2 marks)

Check the y-coordinates at $t = 3$:
For vessel 1:

$$4(3) + 1 = 13$$

For vessel 2:

$$25 + 2(3) = 31$$

(1 mark)

Since

$$13 \neq 31,$$

the vessels are not at the same position at $t = 3$.

The vessels do not intersect at the same time.

(1 mark)

11.

The prism has length:

$$(x + 5) \text{ cm}$$

and its right-angled triangular cross-section has sides:

$$x \text{ cm}, \qquad (x - 1) \text{ cm}.$$

(a) Hypotenuse

By Pythagoras' Theorem:

$$h^2 = x^2 + (x - 1)^2$$
$$= x^2 + x^2 - 2x + 1$$
$$= 2x^2 - 2x + 1$$

Therefore,

$$h = \sqrt{2x^2 - 2x + 1} \text{ cm}$$

(2 marks)

(b) Total Surface Area

Area of one triangular end:

$$A = \frac{1}{2}x(x - 1)$$

Area of two triangular ends:

$$2A = x(x - 1)$$
$$= x^2 - x$$

(1 mark)

The three rectangular faces have areas:

$$x(x+5),$$

$$(x-1)(x+5),$$

and

$$(x+5)\sqrt{2x^2-2x+1}.$$

Thus,

$$S = x^2 - x + x(x+5) + (x-1)(x+5) + (x+5)\sqrt{2x^2-2x+1}$$

Expanding:

$$x^2 - x + x^2 + 5x + x^2 + 4x - 5$$

$$= 3x^2 + 8x - 5$$

Hence,

$$\boxed{S = 3x^2 + 8x - 5 + (x+5)\sqrt{2x^2-2x+1}}$$

(3 marks)

(c) Solving the Given Quadratic

Using the given effective approximation:

$$2x^2 + 7x - 99 = 0$$

Factorising:

$$(2x-11)(x+9) = 0$$

(2 marks)

Therefore,

$$2x - 11 = 0$$

or

$$x + 9 = 0$$

Hence,

$$x = \frac{11}{2}$$

or

$$x = -9.$$

Since x represents a length,

$$\boxed{x = 5.5 \text{ cm}}$$

(1 mark)

Volume of the Prism

Area of triangular base:

$$A = \frac{1}{2}(5.5)(5.5 - 1)$$

$$= \frac{1}{2}(5.5)(4.5)$$

$$= 12.375 \text{ cm}^2$$

Length of prism:

$$x + 5 = 5.5 + 5 = 10.5 \text{ cm}$$

Therefore,

$$V = A \times L$$

$$= 12.375 \times 10.5$$

$$\boxed{V = 129.9375 \text{ cm}^3}$$

(1 mark)

FINAL ANSWERS

$\boxed{1.\ 64 = 2^6}$

$\boxed{2.\ 0.1320}$

$\boxed{3(a).\ 20 \text{ units}}$ $\boxed{3(b).\begin{pmatrix} 3 \\ -4 \end{pmatrix}}$

$\boxed{4(a).\ 84 \text{ m}^2}$ $\boxed{4(b).\ 67.38°}$

$\boxed{5.\ A'(-1,-2),\ B'(-1,1),\ C'(-5,-2)}$

$\boxed{6.\ P(R) = \frac{41}{80} = 0.5125}$

$\boxed{7.\ X'(2,3),\ Y''(-2,-12),\ Z''(-14,-10)}$

$\boxed{8(a).\ 154 \text{ cm}^2, \quad 8(b).\ 30.11 \text{ cm}^2, \quad 8(c).\ 58 \text{ cm}}$

$\boxed{9.\ \text{Mean} = 68.2 \text{ km/h}, \quad \text{Median} = 67.5 \text{ km/h}}$

$\boxed{10.\ \Delta\boldsymbol{r} = \begin{pmatrix} 9 \\ 12 \end{pmatrix}, \quad \text{Speed} = 5 \text{ knots}}$

$\boxed{11.\ x = 5.5 \text{ cm}, \quad V = 129.9375 \text{ cm}^3}$

GRADE 10 CHRISTIAN RELIGIOUS EDUCATION

MARKING SCHEME / ANSWERS

SECTION A: 30 MARKS

1.

a) Ways Christians understand the Bible as the Word of God

Any **two**:

1. It contains God's revelation and teachings to humanity.
2. It guides Christians in faith and daily living.
3. It was inspired by God through the Holy Spirit.
4. It teaches Christians about God's nature and will.

(2 marks)

b) Ways biblical teachings influence the conduct of a learner

Any **two**, well explained:

1. They encourage honesty and discourage cheating.
2. They promote respect for teachers, parents and fellow learners.
3. They encourage kindness and helping others.
4. They guide learners to make responsible moral decisions.
5. They discourage harmful behaviours such as stealing and bullying.

(2 marks)

c) Reason for relating biblical teachings to contemporary situations

- It helps Christians apply God's principles when dealing with modern challenges.

(1 mark)

2.

a) Ways human beings demonstrate stewardship

Any **two**:

1. Planting and protecting trees.
2. Conserving water.
3. Protecting wildlife.
4. Properly disposing of waste.
5. Avoiding unnecessary destruction of natural resources.
6. Preventing environmental pollution.

(2 marks)

b) Effects of environmental destruction on human life

Any **two**, explained:

1. It can cause climate change and extreme weather conditions.
2. It can lead to shortage of food and water.
3. It may cause diseases through pollution.
4. It destroys habitats and reduces biodiversity.
5. It can lead to loss of livelihoods.

(2 marks)

c) Christian teaching encouraging care for creation

- Human beings are stewards of God's creation and should care for and protect it.

(1 mark)

3.

a) Factors that may lead young people into temptation

Any **two**:

1. Peer pressure.
2. Desire for acceptance.
3. Exposure to harmful social media content.
4. Lack of proper parental guidance.
5. Curiosity.
6. Poor choice of friends.
7. Desire for material possessions.

(2 marks)

b) Consequences of persistent sinful behaviour

Any **two**:

1. Separation from God.
2. Loss of trust from other people.
3. Family and social conflicts.
4. Disciplinary or legal consequences.
5. Guilt and loss of self-respect.
6. Development of destructive habits.

(2 marks)

c) Demonstrating genuine repentance

Any **one**:

1. Confessing one's wrongdoing.
2. Asking God and those offended for forgiveness.
3. Turning away from sinful behaviour.
4. Making efforts to correct the harm caused.

(1 mark)

4.

a) Purposes of prayer

Any **two**:

1. Communicating with God.
2. Asking for guidance.
3. Giving thanks to God.
4. Seeking forgiveness.
5. Asking for strength during difficulties.
6. Praising and worshipping God.

(2 marks)

b) Ways prayer helps Christians during challenges

Any **two**, explained:

1. It gives spiritual strength and encouragement.
2. It helps Christians seek God's guidance.
3. It gives hope during difficult circumstances.
4. It can reduce fear and anxiety.
5. It strengthens one's relationship with God.

(2 marks)

c) Reason for combining prayer with responsible action

- Christians should take practical steps to address problems rather than simply waiting for solutions without acting.

(1 mark)

5.

a) Values demonstrated by Jesus

Any **two**:

1. Love.
2. Compassion.
3. Forgiveness.
4. Humility.
5. Justice.
6. Obedience.
7. Selflessness.

(2 marks)

b) Ways of practising these values in school

Any **two**, explained:

1. Helping learners who are experiencing difficulties.
2. Forgiving those who have wronged us.
3. Respecting all learners regardless of their background.
4. Avoiding discrimination and bullying.
5. Sharing resources with those in need.
6. Serving others without expecting rewards.

(2 marks)

c) Benefit of following Jesus' example

- It promotes peaceful, loving and responsible relationships with others.

(1 mark)

6.

a) Christian values that can resolve conflict

Any **two**:

1. Forgiveness.
2. Love.
3. Patience.
4. Humility.
5. Respect.
6. Tolerance.
7. Justice.

(2 marks)

b) Peaceful methods of resolving the disagreement

Any **two**, explained:

1. Discuss the problem calmly.
2. Listen to each other's views.
3. Seek mediation from a teacher or responsible leader.
4. Apologise and forgive one another.
5. Agree on a fair solution.
6. Use dialogue rather than violence.

(2 marks)

c) Danger of unresolved conflict

- It may lead to hatred, violence, division and breakdown of relationships.

(1 mark)

SECTION B: 50 MARKS

7.

(10 marks)

a) Moral issues

Any **two**:

1. Cyberbullying.

2. Violation of another person's dignity.
3. Misuse of social media.
4. Spreading harmful or private information.
5. Peer pressure.
6. Lack of respect for others.

(2 marks)

b) Christian values that should guide the learner

Any **three**, explained:

1. **Love** — the learner should consider the feelings and welfare of the person affected.
2. **Respect** — every person deserves dignity and privacy.
3. **Compassion** — the learner should avoid causing unnecessary embarrassment or suffering.
4. **Self-control** — the learner should resist pressure from friends.
5. **Honesty** — the learner should act truthfully and responsibly.

(3 marks)

c) Actions the learner should take

Any **three**:

1. Refuse to forward the message.
2. Delete the harmful message.
3. Advise friends not to spread it.
4. Report cyberbullying through the appropriate channels.
5. Support the affected learner.
6. Seek help from a teacher, parent or counsellor where necessary.

(3 marks)

d) Consequences of spreading harmful information

Any **two**:

1. Emotional distress to the victim.
2. Damage to the victim's reputation.
3. Conflict among learners.
4. Disciplinary consequences.
5. Loss of trust.
6. Further cyberbullying or retaliation.

(2 marks)

8.

(10 marks)

a) Ways Christians demonstrate love for neighbours

Any **four**:

1. Helping people in need.
2. Forgiving others.
3. Showing kindness and compassion.
4. Visiting and supporting the sick.
5. Sharing resources with the needy.
6. Protecting vulnerable people.
7. Respecting others regardless of their background.
8. Supporting people during times of difficulty.

(4 marks)

b) Ways Christian service improves lives of vulnerable people

Any **three**, explained:

1. Providing material assistance can help meet basic needs.
2. Emotional and spiritual support can give people hope.
3. Education and skills programmes can improve people's livelihoods.
4. Medical and welfare support can improve people's wellbeing.
5. Advocacy can help protect vulnerable people from exploitation.

(3 marks)

c) Benefits of serving others without discrimination

Any **three**:

1. Promotes unity.
2. Promotes equality and justice.
3. Builds peaceful relationships.
4. Strengthens community cooperation.
5. Helps vulnerable people feel valued.
6. Demonstrates Christian love.

(3 marks)

9.

a) Causes of poor communication within families

Any **three**:

1. Excessive use of digital devices.
2. Lack of time together.
3. Generation differences.
4. Failure to listen to one another.
5. Frequent disagreements.
6. Lack of trust.
7. Work or school-related pressures.

(3 marks)

b) Christian values that strengthen family relationships

Any **three**, explained:

1. **Love** encourages family members to care for one another.
2. **Respect** enables members to value each other's opinions.
3. **Forgiveness** helps resolve disagreements.
4. **Patience** enables members to tolerate differences.
5. **Honesty** builds trust within the family.
6. **Compassion** encourages members to support one another.

(3 marks)

c) Practical measures to improve communication

Any **two**:

1. Establish regular family discussions.
2. Reduce unnecessary use of phones and other digital devices during family time.
3. Listen to each other without interruption.
4. Spend quality time together.
5. Solve disagreements through peaceful dialogue.
6. Seek counselling where necessary.

(2 marks)

d) Benefits of effective family communication

Any **two**:

1. Builds trust.
2. Strengthens family unity.
3. Helps resolve conflicts.
4. Enables members to understand one another.
5. Provides emotional support.

(2 marks)

10.

a) Forms of unethical behaviour

Any **two**:

1. Bribery.
2. Corruption.
3. Conflict of interest.
4. Abuse of leadership position.
5. Dishonesty.
6. Misuse of school resources.

(2 marks)

b) Christian principles guiding the leader

Any **three**, explained:

1. **Honesty** — the leader should give truthful information about the purchase.
2. **Integrity** — the leader should do what is right despite personal temptation.
3. **Justice/fairness** — the best supplier should be selected fairly.
4. **Accountability** — the leader should be able to explain how the school's money was used.
5. **Stewardship** — school resources should be used responsibly.

(3 marks)

c) Actions demonstrating integrity

Any **three**:

1. Reject the financial reward.
2. Select the supplier using fair and transparent criteria.
3. Inform the relevant school authority about the attempted inducement.
4. Keep accurate records of the transaction.
5. Ensure the school's money is used for its intended purpose.
6. Follow established procurement procedures.

(3 marks)

d) Benefits of honest leadership

Any **two**:

1. Builds trust.
2. Promotes accountability.
3. Prevents corruption.
4. Encourages cooperation.
5. Promotes fairness.
6. Improves the reputation of the school or community.

(2 marks)

11.

a) Challenges facing young people

Any **four**:

1. Peer pressure.
2. Substance abuse.
3. Cyberbullying.
4. Violence.
5. Corruption.
6. Unemployment.
7. Environmental degradation.
8. Sexual exploitation.
9. Negative influence from social media.
10. Crime.

(4 marks)

b) How Christian teachings help young people resist negative peer pressure

Any **three**, explained:

1. **Christian values** help young people distinguish between right and wrong.
2. **Faith in God** gives them courage to make independent and responsible decisions.
3. **Prayer** provides guidance and strength when facing pressure.
4. **Biblical teachings** discourage destructive behaviour.
5. **Christian fellowship** provides positive friendships and support.
6. **Self-control** enables young people to resist harmful influences.

(3 marks)

c) Ways young Christians can solve community problems

Any **three**, explained:

1. Participate in environmental conservation activities.
2. Volunteer in community service programmes.
3. Educate peers about the dangers of substance abuse.
4. Promote peace and reconciliation.
5. Report corruption, abuse and other harmful practices through appropriate channels.
6. Support vulnerable members of the community.
7. Use social media to spread positive and educational messages.
8. Participate in youth development activities.

(3 marks)

GRADE 10 COMMUNITY SERVICE LEARNING

MARKING SCHEME

General instruction: Award marks for any other relevant and correct response. Where an explanation is required, the learner should demonstrate understanding rather than merely list a point.

SECTION A: 30 MARKS

1.

a) What is meant by community development? (2 marks)

Community development is the process through which people in a community work together to identify and address their needs and improve their social, economic and environmental well-being.

(2 marks)

b) State two ways Community Service Learning contributes to community development. (2 marks)

Any two:

- Helps address real community problems.
- Mobilises community members to participate in development activities.
- Promotes environmental conservation.
- Improves community facilities and services.
- Develops responsible and active citizens.
- Creates awareness about community issues.
- Encourages cooperation between schools and communities.

(1 × 2 = 2 marks)

2.

a) Identify one community problem. (1 mark)

- Lack of productive activities/opportunities for young people.

(1 mark)

b) State two possible causes. (2 marks)

Any two:

- Unemployment.
- Lack of recreational facilities.

- Lack of youth development programmes.
- Poverty.
- Lack of skills or training opportunities.
- Peer influence.
- Lack of community support.

(1 × 2 = 2 marks)

c) Suggest one CSL activity. (1 mark)

Any one:

- Organise a youth skills-training programme.
- Establish a sports or talent-development activity.
- Conduct career guidance and mentorship.
- Organise an entrepreneurship awareness programme.
- Establish a community youth club.

(1 mark)

3.

a) What is a community resource? (1 mark)

A community resource is a person, facility, material, organisation, skill or other asset available within a community that can be used to meet community needs or support development.

(1 mark)

b) Give three examples. (3 marks)

Any three:

- Schools
- Health centres
- Water sources
- Community halls
- Skilled people
- Community leaders
- Religious organisations
- Youth groups
- Non-governmental organisations
- Local businesses
- Natural resources
- Sports facilities

(1 × 3 = 3 marks)

4.

a) Define empathy. (2 marks)

Empathy is the ability to understand and appreciate another person's feelings, experiences or situation and respond appropriately.

(2 marks)

b) State two ways of demonstrating respect. (2 marks)

Any two:

- Listening carefully to community members.
- Using polite and appropriate language.
- Respecting people's opinions and beliefs.
- Seeking permission before using people's property or images.
- Treating everyone equally.
- Respecting privacy and dignity.
- Valuing community members' contributions.

(1 × 2 = 2 marks)

5.

a) State two methods of communication. (2 marks)

Any two:

- Face-to-face meetings.
- Telephone calls.
- Text messages.
- Notices/posters.
- Letters.
- Community meetings/barazas.
- Emails.
- Social media platforms.
- Public announcements.

(1 × 2 = 2 marks)

b) Give one reason why effective communication is important. (1 mark)

- It ensures that participants understand project objectives, responsibilities and activities.

(1 mark)

Other acceptable responses include:

- Reduces misunderstandings.
- Promotes teamwork.
- Helps coordinate activities.
- Enables information sharing.

6.

a) Identify two risks. (2 marks)

Any two:

- Injury from broken glass.

- Electric shock from exposed wires.
- Waterborne/vector-borne diseases from stagnant water.
- Slipping or falling near stagnant water.
- Infection from contaminated materials.

(1 × 2 = 2 marks)

b) State two safety measures. (2 marks)

Any two:

- Avoid touching exposed electrical wires.
- Report dangerous areas to responsible authorities.
- Wear protective gloves and appropriate footwear.
- Use suitable tools to collect waste.
- Avoid direct contact with stagnant or contaminated water.
- Keep learners away from dangerous areas.
- Conduct a risk assessment before starting work.

(1 × 2 = 2 marks)

7.

a) State two questions a learner may ask when reflecting. (2 marks)

Any two:

- What did I learn from the activity?
- What did I do well?
- What challenges did I encounter?
- How did the activity benefit the community?
- What could I have done differently?
- Did we achieve our objectives?
- What should be improved in future?

(1 × 2 = 2 marks)

b) State one importance of reflection. (1 mark)

- It helps learners identify what they learned, evaluate their experiences and improve future activities.

(1 mark)

SECTION B: 50 MARKS

8.

a) Two methods of collecting information. (2 marks)

Any two:

- Observation.
- Interviews.
- Questionnaires.

- Community meetings.
- Surveys.
- Focus group discussions.
- Discussions with local leaders.

(1 × 2 = 2 marks)

b) Three questions learners could ask community members. (3 marks)

Any three relevant questions, for example:

1. What are the main waste-management problems in this community?
2. Where is waste usually disposed of?
3. What causes poor waste disposal in this area?
4. How does poor waste management affect residents?
5. What solutions would you recommend?
6. What support can community members provide?

(1 × 3 = 3 marks)

c) Three objectives for the project. (3 marks)

Any three appropriate objectives:

- To create awareness about proper waste disposal.
- To reduce littering around the school and community.
- To encourage sorting and recycling of waste.
- To organise regular community clean-up activities.
- To promote responsible waste-management practices.

(1 × 3 = 3 marks)

d) Two stakeholders. (2 marks)

Any two:

- Community leaders.
- Local government authorities.
- Environmental officers.
- School administration.
- Teachers.
- Parents.
- Community members.
- Waste-management organisations.
- Local businesses.

(1 × 2 = 2 marks)

9.

a) Two needs of the elderly people. (2 marks)

Any two:

- Access to basic necessities.
- Assistance with maintaining their surroundings.
- Social support and companionship.
- Access to health services.
- Help with household/community tasks.
- Protection and care.

(1 × 2 = 2 marks)

b) Three appropriate service activities. (3 marks)

Any three:

- Cleaning their surroundings.
- Assisting with obtaining basic necessities.
- Organising visits and companionship.
- Creating awareness about available support services.
- Helping with appropriate household tasks.
- Organising a community donation drive.
- Linking them with relevant community support services.

(1 × 3 = 3 marks)

c) Two values learners should demonstrate. (2 marks)

Any two:

- Respect
- Empathy
- Compassion
- Patience
- Responsibility
- Honesty
- Kindness
- Dignity

(1 × 2 = 2 marks)

d) Explain two precautions. (2 marks)

Any two:

- Respect their privacy and dignity.
- Seek consent before providing assistance or taking photographs.
- Avoid exposing their personal information.
- Use safe methods when assisting them physically.
- Report serious needs to appropriate adults or authorities.
- Avoid taking advantage of vulnerable people.

(1 × 2 = 2 marks)

e) One possible benefit to learners. (1 mark)

Any one:

- Develops empathy and compassion.
- Develops communication skills.
- Promotes responsible citizenship.
- Provides practical experience.
- Develops teamwork skills.
- Increases awareness of community needs.

(1 mark)

10.

a) Two possible causes of shortage of seedlings. (2 marks)

Any two:

- Fewer seedlings were supplied than expected.
- Poor planning.
- Miscalculation of the required number.
- Some seedlings were damaged.
- Some seedlings were lost during transportation.
- Limited funds.
- Supplier failure.

(1 × 2 = 2 marks)

b) Three possible solutions. (3 marks)

Any three:

- Obtain additional seedlings from another supplier.
- Ask community members or organisations to donate seedlings.
- Reduce the area to be planted while maintaining the main objective.
- Plant available seedlings strategically.
- Reschedule part of the activity.
- Seek support from the school or relevant environmental organisations.

(1 × 3 = 3 marks)

c) Two qualities of the project leader. (2 marks)

Any two:

- Good decision-making.
- Creativity.
- Flexibility.
- Problem-solving ability.
- Leadership.
- Communication skills.
- Responsibility.
- Resourcefulness.
- Ability to consult others.

(1 × 2 = 2 marks)

d) Two reasons for considering alternative solutions. (2 marks)

- It increases the possibility of finding an effective solution.
- It enables the team to compare advantages and disadvantages.
- It prevents making rushed decisions.
- It encourages creativity and critical thinking.
- It helps the team make better use of available resources.

(1 × 2 = 2 marks)

e) One lesson learners can gain. (1 mark)

Any one:

- The importance of planning.
- The importance of flexibility.
- Challenges can be solved through teamwork.
- The need to have alternative plans.
- Effective problem-solving requires creativity.

(1 mark)

11.

a) Identify one ethical problem. (1 mark)

- Lack of accountability and transparency in the use of project funds/resources.

(1 mark)

b) Three principles of accountability. (3 marks)

Any three:

- Transparency.
- Honesty.
- Proper record keeping.
- Responsibility.
- Integrity.
- Proper reporting.
- Efficient use of resources.
- Openness in financial transactions.

(1 × 3 = 3 marks)

c) Two measures to prevent misuse of resources. (2 marks)

Any two:

- Keep accurate financial records.
- Require receipts for expenditure.
- Have more than one person involved in handling project funds.
- Regularly report expenditure to stakeholders.
- Prepare and follow a project budget.

- Conduct regular monitoring and auditing.
- Obtain approval before major expenditure.

(1 × 2 = 2 marks)

d) Two reasons for proper record keeping. (2 marks)

- It promotes accountability and transparency.
- It helps track how resources have been used.
- It provides evidence of expenditure.
- It makes evaluation and reporting easier.
- It helps prevent misuse of resources.
- It assists in planning future projects.

(1 × 2 = 2 marks)

e) Two people/groups to whom the project team should be accountable. (2 marks)

Any two:

- School administration.
- Teachers/project supervisors.
- Learners/team members.
- Community members.
- Donors/sponsors.
- Community leaders.
- Relevant government authorities.

(1 × 2 = 2 marks)

12.

a) Three indicators of project success. (3 marks)

Any three:

- Improved cleanliness around the water point.
- Reduced wastage of water.
- Increased community awareness about water conservation.
- Improved use and maintenance of the water facility.
- Positive feedback from community members.
- Reduced cases of misuse of the water source.
- Increased participation in maintaining the facility.

(1 × 3 = 3 marks)

b) Two methods of obtaining feedback. (2 marks)

Any two:

- Interviews.
- Questionnaires.
- Community meetings.
- Focus group discussions.

- Suggestion boxes.
- Observation.
- Informal discussions with beneficiaries.

(1 × 2 = 2 marks)

c) Two measures for sustainability. (2 marks)

Any two:

- Establish a community committee to continue maintaining the water point.
- Train community members on proper maintenance.
- Develop a regular cleaning schedule.
- Involve local leaders in monitoring the facility.
- Create continued awareness programmes.
- Link the community with relevant authorities for support.
- Mobilise local resources for maintenance.

(1 × 2 = 2 marks)

d) One challenge affecting sustainability. (1 mark)

Any one:

- Lack of funds.
- Lack of community participation.
- Poor maintenance.
- Lack of leadership.
- Lack of resources.
- Loss of interest after the learners leave.
- Vandalism.
- Poor coordination.

(1 mark)

e) One way learners can use what they learned in future. (1 mark)

- They can apply the skills, values and knowledge gained to solve other problems in their homes, schools and communities.

(1 mark)

f) Why is reflection important? (1 mark)

- It helps learners understand what they learned, evaluate the effectiveness of their actions and identify improvements for future community service projects.

(1 mark)

GRADE 10 ELECTRICITY TECHNOLOGY

MARKING SCHEME

SECTION A: 30 MARKS

1.

a) Electric charge is a **physical property of matter responsible for electrical effects/interactions**.
(1 mark)

b) **Coulomb (C)**.
(1 mark)

c) The two types are:

- **Positive charge**
- **Negative charge**

(1 mark)

2.

a) An electrical source is a **device or system that supplies electrical energy/potential difference to an electrical circuit**.
(1 mark)

b) Any two:

- Hydroelectric power
- Geothermal power
- Solar power
- Wind power
- Thermal power
- Biomass

(1 mark each = 2 marks)

3.

a) Insulation **prevents electric shock, leakage of current and accidental contact between conductors**.
(1 mark)

b) Any two:

- PVC
- Rubber
- XLPE
- Polythene
- Bakelite

(1 mark each = 2 marks)

4.

a) Potential difference is the **work done or energy transferred per unit charge between two points in an electrical circuit**.
(1 mark)

b) **Volt (V)**.
(1 mark)

c) **Voltmeter**.
(1 mark)

5.

a) Formula:

V=IRV=IR

(1 mark)

b)

V=2×6V=12V

Answer: 12 V
(2 marks)

6.

a) **Resistor:** Limits or controls the flow of electric current in a circuit.

(1 mark)

b) **Capacitor:** Stores electrical charge/energy temporarily.
(1 mark)

c) **Switch:** Opens or closes a circuit to control the flow of current.
(1 mark)

7.

a) A short circuit is an **unintended low-resistance path through which a large current flows**.
(1 mark)

b) Any two:

- Damaged insulation exposing conductors.
- Live and neutral conductors coming into direct contact.
- Loose or incorrectly connected wires.
- Faulty electrical equipment.
- Moisture entering an electrical installation.

(1 mark each = 2 marks)

8.

a) **A magnetic field is produced around the conductor.**
(1 mark)

b) **Electric motor**.
(1 mark)

c) Any one:

- Electric fan
- Water pump
- Electric drill
- Washing machine
- Electric mixer

(1 mark)

9.

Given:

V=240VV=240V I=5AI=5A

a)

P=VIP=VI

(1 mark)

b)

P=240×5P=240\times5 P=1200WP=1200W

Therefore:

Power = 1,200 W or 1.2 kW

(2 marks)

10.

Any three:

- Provides a safe path for fault current to flow to earth.
- Helps prevent electric shock.
- Helps protective devices operate during faults.
- Protects electrical equipment from damage.
- Reduces the risk of electrical fires.
- Prevents exposed metal parts from becoming dangerously live.

(1 mark each = 3 marks)

SECTION B: 50 MARKS

11.

a) Component A: **Cell**.
(1 mark)

b) Component B: **Diode**.
(1 mark)

c) Component C: **Lamp/bulb**.
(1 mark)

d) Function of the cell:

- Supplies electrical energy/potential difference to the circuit.

(1 mark)

e) Function of the resistor:

- Limits or controls the flow of electric current.

(1 mark)

f) Function of the lamp:

- Converts electrical energy mainly into **light and heat energy**.

(1 mark)

g) A resistor is used to:

- Control/limit the amount of current flowing through the circuit.
- Protect other components from excessive current.

(2 marks)

h) Any one:

- Switch off and isolate the power supply before replacing the component.
- Use the correct replacement component.
- Use appropriate insulated tools.
- Test that the circuit is dead before working on it.

(1 mark)

i) **Ohm (Ω)**.
(1 mark)

12. a) Arrangement A: **Series circuit**.
(1 mark)

b) Arrangement B: **Parallel circuit**.
(1 mark)

c) Characteristics of a series circuit:

Any two:

- It has only one path for current.
- The same current flows through all components.
- If one component becomes open circuit, the whole circuit is interrupted.
- The supply voltage is divided among the components.

(1 mark each = 2 marks)

d) Characteristics of a parallel circuit:

Any two:

- It has two or more branches.
- Current divides among the branches.
- Each branch receives the supply potential difference.
- Failure of one branch does not necessarily affect the other branches.

(1 mark each = 2 marks)

e) Domestic lighting circuits are connected in parallel because:

- Each lamp receives the full supply voltage.
- Each lamp can operate independently.
- If one lamp fails, the others can continue operating.

Any two = 2 marks

f) In arrangement A, if L1 develops an open circuit, **L2 goes off because the circuit is broken**.
(1 mark)

g) In arrangement B, if L1 develops an open circuit, **L2 continues to operate** because it has its own parallel branch.
(1 mark)

13.

i. Parallel circuit $^{1}/_{30} + {}^{1}/_{20} = {}^{5}/_{60}$
R= 5.3V
Total resistance = 10 + 12 = 22Ω
ii. $I = {}^{V}/_{R} = {}^{2.1}/_{22} = 0.095A$
iii. V= IR = 10 x $^{2.1}/_{22}$
= 0.95V

b) An ammeter is connected in series because:

- The same current flowing through the circuit/component must pass through the ammeter.
- An ammeter has very low resistance and therefore should not be connected directly across a supply.

(2 marks)

c) A voltmeter is connected in parallel because:

- It measures the potential difference between two points.
- A voltmeter has very high resistance so that it draws very little current from the circuit.

(2 marks)

d) Any one:

- Select the correct range before taking a measurement.
- Observe correct polarity.
- Ensure proper connections.
- Do not exceed the instrument's rated range.
- Use a properly functioning meter.

(1 mark)

14.

a) The device is a **fuse or Miniature Circuit Breaker (MCB)**.
(1 mark)

b) Its main function is to **protect the electrical circuit and equipment by automatically interrupting the supply when excessive current flows**.
(2 marks)

c) When excessive current flows:

- The protective device operates.
- A fuse element melts or an MCB trips.
- The circuit is opened and current stops flowing.

Any two well-explained points = 2 marks

d) Advantages of an MCB over a conventional fuse:

Any two:

- It can be reset after tripping.
- It operates quickly during excessive current conditions.
- It is more convenient to use.
- It does not require replacement after every fault.
- It provides reliable circuit protection.

(1 mark each = 2 marks)

e) Any three:

- Switch off and isolate the supply before working.
- Use correctly rated cables and protective devices.
- Use insulated tools.
- Avoid working with wet hands.
- Ensure proper earthing.
- Make secure and properly insulated connections.
- Test the installation before energising it.
- Do not work on live circuits unless appropriately authorised and trained.

(1 mark each = 3 marks)

15.

a) Electric kettle

Given:

P=2000W=2kWP=2000W=2kW t=1ht=1h

Using:

E=Pt E=2kWh

Answer: 2 kWh
(2 marks)

b) Drill

Given:

P=750W=0.75kWP=750W=0.75kW t=2ht=2h E=0.75×2E=0.75\times2 E=1.5kWhE=1.5kWh

Answer: 1.5 kWh
(2 marks)

c) Lighting system

Given:

P=500W=0.5kWP=500W=0.5kW t=6ht=6h E=0.5×6E=0.5\times6 E=3kWhE=3kWh

Answer: 3 kWh
(2 marks)

d) Total energy consumed in five days

First calculate the total energy consumed per day:

Edaily=2+1.5+3E=6.5kWh

For five days:

E5days=6.5×5=32.5kWh

Answer: 32.5 kWh
(3 marks)

e) One practical measure to reduce electricity consumption

Any one:

- Switch off appliances when not in use.
- Use energy-efficient lighting.
- Avoid unnecessary use of electrical appliances.
- Switch off lights when leaving the workshop.
- Maintain appliances properly.
- Use appliances only for the required period.

(1 mark)

GRADE 10 ENGLISH GRAMMAR

MARKING SCHEME / ANSWERS

SECTION A: GRAMMATICAL COMPETENCE – 30 MARKS

1:

a) **Diligently** – Adverb
b) **Although** – Conjunction / subordinating conjunction
c) **Them** – Pronoun
d) **Beautiful** – Adjective
e) **Through** – Preposition

1 mark each = 5 marks

2:

a) Neither the teacher nor the students **were** ready for the inspection.

b) The basket of oranges **is** on the table.

c) Each of the candidates **has** submitted the assignment.

d) The news from the school **was** encouraging.

e) My brother and his friend **play** football every Saturday.

1 mark each = 5 marks

3:

a) By the time the bus arrived, we **had left** the station.

b) She **was doing** her homework when the lights went off.

c) The students **will complete** the project next week.

d) I **have read** this book twice since January.

e) When I reached home yesterday, my mother **was preparing** dinner.

1 mark each = 5 marks

4:

a) Jane and I completed the work by **ourselves**.

b) The teacher asked John whether the bag belonged to **him**.

c) There isn't **much** water left in the tank.

d) **Each** of the two boys received a certificate.

e) The children forgot **their** books at home.

1 mark each = 5 marks

5:

a) The meeting begins **at** 8.00 a.m.

b) We stayed indoors **because** it was raining heavily.

c) The prefect walked **into** the classroom and addressed the students.

d) You will succeed **if** you work hard.

e) The teacher was pleased **with** the students' performance.

1 mark each = 5 marks

6:

a) The boy is too young to drive a car.
The boy is so young that he cannot drive a car.

b) "I have completed my assignment," Mary said.
Mary said that she had completed her assignment.

c) Despite being tired, the athlete continued running.
Although the athlete was tired, he/she continued running.

d) The teacher praised the student because he had worked hard.
Having worked hard, the student was praised by the teacher.

e) It is possible that John will win the competition.
John may win the competition.

1 mark each = 5 marks

SECTION B: STRUCTURED GRAMMAR AND LANGUAGE USE – 50 MARKS

7: Corrected paragraph:

Last Monday, our class was preparing for an educational trip. The teacher told us that each student must bring enough food and water. Neither the students nor the teacher was willing to arrive late. When the bus arrived, everyone had boarded quickly. Our guide, who was a very experienced man, welcomed us warmly. He advised us to listen carefully and obey all the instructions.

Errors corrected:

1. **were → was**
2. **tell → told**
3. **brings → bring**
4. **were → was**
5. **have → had**
6. **boarded → had boarded**
7. **were → was**
8. **a very experienced man → who was a very experienced man**
9. **listened → listen**
10. Correct construction: **obey all the instructions**

1 mark for each correctly identified and corrected error = 10 marks

8:

a) The laboratory **was cleaned by the students after the experiment**.

b) A cultural day **will be organized by the school next month**.

c) The examination timetable **has been announced by the prefect**.

d) The broken desk **was being repaired by the carpenter**.

e) The proposal **had been approved by the committee before the meeting ended**.

1 mark each = 5 marks

9:

a) Peter said that **he was studying for his examination**.

b) The students said that **they would visit the museum the following day**.

c) The teacher asked me **whether/if I understood the instructions**.

d) The teacher **asked/told Brian to close the window**.

e) The principal asked the student **why he/she had arrived late**.

1 mark each = 5 marks

10:

a) If you work hard, you **will pass** the examination.

b) If I had enough money, I **would buy** a new computer.

c) If they had left early, they **would have caught** the train.

d) **Unless you revise adequately, you will fail.**

e) **If she had carried an umbrella, she would not have got/gotten wet.**

1 mark each = 5 marks

11:

a) The woman **who addressed the students yesterday is our new principal**.

b) I borrowed a book from the library **which is very interesting**.

c) The boy **whose father is a farmer won the scholarship**.

d) We visited a school **which/that has modern laboratories**.

e) I met a teacher **whom/that you recommended to me**.

1 mark each = 5 marks

12: Correct answer:

Last Friday, our English teacher said, "Students, you should prepare yourselves for the end-of-year examination." She then asked, "Who among you has revised all the topics?" Peter replied, "I have revised most of them, but I need more practice."

Award:

- Capital letters – **1 mark**
- Commas – **1 mark**
- Full stops – **1 mark**
- Question mark – **1 mark**
- Quotation marks/apostrophe/hyphen as appropriate – **1 mark**

Total = 5 marks

13:

a) **The candidate was not only intelligent but also hardworking.**

b) **Hardly had the bell rung when the students entered the classroom.**

c) **The box is too heavy for the child to lift.**

d) **No sooner had the teacher entered the room than the students became quiet.**

e) **You cannot enter the laboratory unless you have permission.**

1 mark each = 5 marks

14: Cloze Test

a) Education plays an important role **in** the development of an individual.

b) A learner who is committed **to** his or her studies is likely to perform well.

c) Success does not come **without** hard work and discipline.

d) Students should therefore make good use **of** their time.

e) ...activities that interfere **with** their studies.

Answers:

a) **in**
b) **to**
c) **without**
d) **of**
e) **with**

1 mark each = 5 marks

GRADE 10 ESSENTIAL MATHEMATICS

MARKING SCHEME

TOTAL MARKS: 80 MARKS

MARKING SYMBOLS / CODE

- ***M*** *— Method mark: awarded for applying a correct mathematical method.*
- ***A*** *— Accuracy mark: awarded for a correct intermediate or final answer dependent on a method mark.*

- ***B*** *— Independent mark: awarded for a correct answer or statement regardless of method.*

SECTION A: 30 MARKS

QUESTION 1 — [5 MARKS]

(a)

Step 1: Simplify the numerator.

$$-2.4 \times (-1.5) = 3.6 = \frac{18}{5}$$

[M1]

$$\text{Numerator} = 3.6 + 0.6 = 4.2 = \frac{21}{5}$$

Step 2: Simplify the denominator.

$$\left(\frac{1}{2}\right)^{-3} = 2^3 = 8$$

[M1]

$$\text{Denominator} = 8 \div 4 = 2$$

Step 3: Perform the division.

$$\frac{4.2}{2} = 2.1 = \frac{21}{10}$$

Therefore,

$$\boxed{2.1}$$

or

$$\boxed{2\frac{1}{10}}$$

[A1]

(b)

Step 1: Find the reciprocal.

$$\text{Reciprocal} = \frac{1}{0.0325}$$

$$= 30.76923 \ldots$$

[M1]

Step 2: Round to 4 significant figures.

$$\boxed{30.77}$$

[A1]

QUESTION 2 — [5 MARKS]

(a)

Step 1: Express all terms with a common base of 3.

$$(3^2)^{x+1} \times 3^{x-2} = (3^3)^{2x-1}$$

[M1]

Using the law

$$(a^m)^n = a^{mn},$$

we get:

$$3^{2x+2} \times 3^{x-2} = 3^{6x-3}$$

Step 2: Apply the law of indices for multiplication.

When multiplying powers with the same base, add the exponents:

$$3^{(2x+2)+(x-2)} = 3^{6x-3}$$

$$3^{3x} = 3^{6x-3}$$

[M1]

Step 3: Equate the powers and solve for x.

$$3x = 6x - 3$$

$$3 = 3x$$

$$\boxed{x = 1}$$

[A1]

(b)

Step 1: Multiply the surds under a single radical.

$$\sqrt{18} \times \sqrt{2} = \sqrt{18 \times 2} = \sqrt{36}$$

[M1]

Step 2: Evaluate and state the classification.

$$\sqrt{36} = 6$$

Since

$$6 = \frac{6}{1},$$

6 can be expressed as a ratio of two integers.

Therefore, it is a:

$$\boxed{\text{Rational number}}$$

[A1]

QUESTION 3 — [5 MARKS]

(a) Total Surface Area of a Cone

Step 1: Use the formula

$$TSA = \pi r^2 + \pi rl$$

where

$$r = 6 \text{ cm}, \qquad l = 10 \text{ cm}.$$

Base area:

$$\pi(6)^2 = 36\pi$$

Curved surface area:

$$\pi(6)(10) = 60\pi$$

[M1]

Step 2: Add the components.

$$TSA = 36\pi + 60\pi$$

$$\boxed{TSA = 96\pi \text{ cm}^2}$$

[A1]

(b) Volume of a Cone

Step 1: Find the perpendicular height h using Pythagoras' theorem.

$$h = \sqrt{l^2 - r^2}$$

$$= \sqrt{10^2 - 6^2}$$

$$= \sqrt{100 - 36}$$

$$= \sqrt{64}$$

$$h = 8 \text{ cm}$$

[M1]

Step 2: Apply the volume formula.

$$V = \frac{1}{3}\pi r^2 h$$

$$V = \frac{1}{3} \times \pi \times 6^2 \times 8$$

$$= \frac{1}{3} \times 36 \times 8 \times \pi$$

$$\boxed{V = 96\pi \text{ cm}^3}$$

[A1]

QUESTION 4 — [5 MARKS]

A point $A(3, -2)$ is reflected first in the line $y = x$, and then in the vertical line $x = -1$.

Step 1: Reflect $A(3, -2)$ in the line $y = x$.

The transformation rule is:

$$(x, y) \rightarrow (y, x)$$

Therefore,

$$A'(y, x) = (-2,3)$$

$$\boxed{A' = (-2,3)}$$

[M1] [A1]

Step 2: Reflect $A'(-2, 3)$ in the vertical line $x = -1$.

The distance from

$$x = -2$$

to

$$x = -1$$

is 1 unit.

The reflected point is therefore 1 unit on the opposite side of $x = -1$:

$$x'' = -1 + 1 = 0$$

Alternatively, use:

$$x'' = 2k - x$$

where $k = -1$:

$$x'' = 2(-1) - (-2)$$

$$= -2 + 2 = 0$$

[M1]

The y-coordinate remains unchanged:

$$y = 3$$

Step 3: State the final coordinates.

$$\boxed{A'' = (0,3)}$$

[A1]

QUESTION 5 — [5 MARKS]

Area of a Non-Right-Angled Triangle

Step 1: Identify the formula for the area of a triangle given two sides and the included angle (SAS).

$$\text{Area} = \frac{1}{2}ab\sin C$$

[M1]

Step 2: Substitute the given values.

Given:

$$a = 14, \qquad b = 9, \qquad C = 42^\circ$$

Therefore,

$$\text{Area} = \frac{1}{2} \times 14 \times 9 \times \sin 42^\circ$$

[M1]

Since

$$\sin 42^\circ = 0.6691306 \ldots$$

$$\text{Area} = 63 \times 0.6691306 \ldots$$

[M1]

Step 3: Calculate and round to 2 decimal places.

$$\text{Area} = 42.1552 \ldots$$

$$\boxed{42.16 \text{ cm}^2}$$

[A1]

QUESTION 6 — [5 MARKS]

A container contains **4 red, 5 blue and 3 other marbles**. Two marbles are selected without replacement.

Step 1: Calculate the total number of marbles.

$$4 + 5 + 3 = 12$$

Therefore,

$$\text{Total marbles} = 12$$

Step 2: Calculate the probability of selecting Red then Blue.

$$P(R_1) = \frac{4}{12}$$

After selecting a red marble, 11 marbles remain, including 5 blue marbles:

$$P(B_2 \mid R_1) = \frac{5}{11}$$

Therefore,

$$P(R, B) = \frac{4}{12} \times \frac{5}{11}$$

$$= \frac{20}{132}$$

[M1]

Step 3: Calculate the probability of selecting Blue then Red.

$$P(B_1) = \frac{5}{12}$$

After selecting a blue marble, 11 marbles remain, including 4 red marbles:

$$P(R_2 \mid B_1) = \frac{4}{11}$$

Therefore,

$$P(B, R) = \frac{5}{12} \times \frac{4}{11}$$

$$= \frac{20}{132}$$

[M1]

Step 4: Add the probabilities of the two mutually exclusive paths.

$$P(\text{one Red and one Blue}) = P(R, B) + P(B, R)$$

$$= \frac{20}{132} + \frac{20}{132}$$

$$= \frac{40}{132}$$

[M1]

Step 5: Simplify.

$$P = \boxed{\frac{10}{33}}$$

[A1]

SECTION B: 50 MARKS

QUESTION 7 — [10 MARKS]

(a)

The base price is **650 EUR**, with an exchange rate of **1 EUR = 135.50 KES**.

Step 1: Convert the base price to Kenya Shillings.

$$\text{Price in KES} = 650 \times 135.50$$

$$= \boxed{88{,}075 \text{ KES}}$$

[M1]

Step 2: Calculate the 15% import tax.

$$\text{Tax} = 15\% \times 88{,}075$$

$$= 0.15 \times 88{,}075$$

$$= \boxed{13{,}211.25 \text{ KES}}$$

[M1]

Step 3: Calculate the total import cost.

$$\text{Total Cost} = 88{,}075 + 13{,}211.25$$

$$\boxed{\text{Total Cost} = 101{,}286.25 \text{ KES}}$$

[A1]

(b)

Step 1: Calculate the selling price with a 20% profit.

$$\text{Selling Price} = 101{,}286.25 \times 1.20$$

$$\boxed{\text{Selling Price} = 121{,}543.50 \text{ KES}}$$

[M1] [A1]

Step 2: Convert the selling price to Euros.
Given:

$$1 \text{ EUR} = 145.20 \text{ KES}$$

Therefore,

$$\text{Price in EUR} = \frac{121{,}543.50}{145.20}$$

$$= 837.0764 \ldots$$

[M1]

Step 3: Round to 2 decimal places.

$$\boxed{837.08 \text{ EUR}}$$

[A1]

QUESTION 8— [10 MARKS]

(a) Solve the quadratic equation

Step 1: Find two numbers whose product is

$$6 \times (-35) = -210$$

and whose sum is

$$-11.$$

The numbers are:

$$-21 \quad \text{and} \quad +10$$

[M1]

Step 2: Split the middle term and factorise by grouping.

$$6x^2 - 11x - 35 = 0$$

$$6x^2 - 21x + 10x - 35 = 0$$

$$3x(2x - 7) + 5(2x - 7) = 0$$

$$(3x + 5)(2x - 7) = 0$$

[M1]

Step 3: Solve for x.

$$3x + 5 = 0$$

$$3x = -5$$

$$x = -\frac{5}{3}$$

OR

$$2x - 7 = 0$$

$$2x = 7$$

$$x = \frac{7}{2}$$

Therefore,

$$\boxed{x = -\frac{5}{3} \quad \text{or} \quad x = \frac{7}{2}}$$

or

$$\boxed{x = -\frac{5}{3} \quad \text{or} \quad x = 3.5}$$

[A1]

(b)

A rectangular area has its width doubled and its length reduced by 2 metres, resulting in an increase in area of 88 m^2.

Step 1: Define the original dimensions.

Let the original width be:

$$w$$

Original length:

$$w + 7$$

Original area:

$$w(w + 7)$$

$$= w^2 + 7w$$

[M1]

New width:

$$2w$$

New length:

$$(w + 7) - 2 = w + 5$$

New area:

$$2w(w + 5)$$

$$= 2w^2 + 10w$$

[M1]

Step 2: Formulate the quadratic equation.

The increase in area is 88 m^2:

$$\text{New Area} - \text{Original Area} = 88$$

$$(2w^2 + 10w) - (w^2 + 7w) = 88$$

$$w^2 + 3w = 88$$

$$\boxed{w^2 + 3w - 88 = 0}$$

[A1]

Step 3: Solve the quadratic equation.

$$(w + 11)(w - 8) = 0$$

Therefore,

$$w = -11$$

or

$$w = 8$$

Since the width must be positive:

$$w = -11 \quad \text{is rejected}$$

Thus,

$$\boxed{w = 8 \text{ m}}$$

[M1] [A1]

Step 4: State the final dimensions.

Width:

$$\boxed{8 \text{ m}}$$

Length:

$$8 + 7 = 15$$

$$\boxed{15 \text{ m}}$$

[A1]

QUESTION 9 — [10 MARKS]

Two similar pyramids, S and L, have base areas 45 cm^2 and 180 cm^2, respectively. The height of L is 24 cm, and the volume of S is 120 cm^3.

(a) Area Scale Factor

Step 1: Calculate the ratio of the base areas.

$$\text{ASF} = \frac{\text{Area of } S}{\text{Area of } L}$$

$$= \frac{45}{180}$$

$$\boxed{\text{ASF} = \frac{1}{4}}$$

[B2]

(b) Linear Scale Factor

$$\text{LSF} = \sqrt{\text{ASF}}$$

$$= \sqrt{\frac{1}{4}}$$

$$\boxed{\text{LSF} = \frac{1}{2}}$$

[B2]

(c) Height of Pyramid *S*

Since the pyramids are similar:

$$\frac{\text{Height of } S}{\text{Height of } L} = \text{LSF}$$

Therefore,

$$\frac{h_S}{24} = \frac{1}{2}$$

[M1]

$$h_S = 24 \times \frac{1}{2}$$

$$\boxed{h_S = 12 \text{ cm}}$$

[A1]

(d) Volume and Capacity of Pyramid *L*

Step 1: Calculate the Volume Scale Factor.

$$\text{VSF} = (\text{LSF})^3$$

$$= \left(\frac{1}{2}\right)^3$$

$$= \frac{1}{8}$$

[M1]

Therefore,

$$\text{Volume of } L = \text{Volume of } S \times 8$$

$$= 120 \times 8$$

$$\boxed{960 \text{ cm}^3}$$

[A1]

Step 2: Convert the volume to litres.
Given:

$$1000 \text{ cm}^3 = 1 \text{ litre}$$

Therefore,

$$\text{Capacity} = \frac{960}{1000}$$

$$\boxed{0.96 \text{ litres}}$$

[A1]

QUESTION 10 — [10 MARKS]

(a) Diagram

Award **3 marks** for a correct right-angled triangle arrangement showing:

- Vertical tower TB.
- Points X and Y on the ground line.
- $XY = 40$ m.
- Angle of elevation at $X = 32°$.
- Angle of elevation at $Y = 54°$.

[B3]

(b) Calculate the height of the tower.

Let the distance from the base B to Y be d.

Step 1: Set up tangent equations for triangles TBY and TBX.
For triangle TBY:

$$\tan 54° = \frac{h}{d}$$

Therefore,

$$h = d\tan 54°$$

$$h = 1.3764d$$

[M1]

For triangle TBX:

$$\tan 32° = \frac{h}{d + 40}$$

Therefore,

$$h = (d + 40)\tan 32°$$

$$h = 0.6249(d + 40)$$

[M1]

Step 2: Equate the two expressions for h.

$$1.3764d = 0.6249(d + 40)$$

$$1.3764d = 0.6249d + 24.996$$

$$1.3764d - 0.6249d = 24.996$$

$$0.7515d = 24.996$$

$$d = 33.26 \text{ m}$$

[M1]

Step 3: Calculate the height h.

$$h = 33.26 \times 1.3764$$

$$h = 45.779 \ldots$$

Therefore,

$$\boxed{h = 45.78 \text{ m}}$$

[A1]

(c) Calculate the distance *XT*.

Using triangle TBX:

$$\sin 32° = \frac{h}{XT}$$

Therefore,

$$XT = \frac{h}{\sin 32°}$$

$$XT = \frac{45.78}{\sin 32°}$$

Since

$$\sin 32° = 0.5299 \ldots$$

$$XT = \frac{45.78}{0.5299}$$

$$\boxed{XT = 86.39 \text{ m}}$$

[M1] [A1]

QUESTION 11 — [10 MARKS]

(a) Frequency Distribution Table

Mark Range	Frequency f	Midpoint x	$f \times x$	Cumulative Frequency cf
10–19	4	14.5	58	4
20–29	7	24.5	171.5	11
30–39	12	34.5	414	23
40–49	11	44.5	489.5	34
50–59	6	54.5	327	40
Total	**40**	—	**1460**	—

[B3]

Therefore,

$$\boxed{\sum f = 40}$$

and

$$\boxed{\sum fx = 1460}$$

(b) Estimated Mean Mark

Step 1: Apply the mean formula.

$$\bar{x} = \frac{\sum fx}{\sum f}$$

$$\bar{x} = \frac{1460}{40}$$

[M1]

$$\boxed{\bar{x} = 36.5 \text{ marks}}$$

[A1]

(c) Probabilities

(i) Probability that both students score at least 30 marks

Students scoring 30 marks or more:

$$12 + 11 + 6 = 29$$

Therefore,

$$P(\text{first student} \geq 30) = \frac{29}{40}$$

After selecting one student, 39 students remain, of whom 28 scored at least 30:

$$P(\text{second student} \geq 30) = \frac{28}{39}$$

Therefore,

$$P(\text{Both} \geq 30) = \frac{29}{40} \times \frac{28}{39}$$

$$= \frac{812}{1560}$$

$$= \boxed{\frac{203}{390}}$$

Approximately,

$$\boxed{0.5205}$$

[M1] [A1]

(ii) Probability that one student scores 10–19 and the other scores 50–59

There are:

- 4 students in the **10–19** group.
- 6 students in the **50–59** group.

The two possible arrangements are:

First 10–19, then 50–59:

$$\frac{4}{40} \times \frac{6}{39} = \frac{24}{1560}$$

First 50–59, then 10–19:

$$\frac{6}{40} \times \frac{4}{39} = \frac{24}{1560}$$

Therefore,

$$P = \frac{24}{1560} + \frac{24}{1560}$$

$$= \frac{48}{1560}$$

$$= \boxed{\frac{2}{65}}$$

Approximately,

$$\boxed{0.0308}$$

[M1] [A1]

MARK SUMMARY

Section	Question	Marks
A	Question 1	5
A	Question 2	5

Section	Question	Marks
A	Question 3	5
A	Question 4	5
A	Question 5	5
A	Question 6	5
Section A Total		**30**
B	Question I	10
B	Question II	10
B	Question III	10
B	Question IV	10
B	Question V	10
Section B Total		**50**
GRAND TOTAL		**80 MARKS**

ELIMU MSINGI INAYOENDANA NA UMAHIRI (CBE)

GREDI YA 10 – FASIHI YA KISWAHILI

MWONGOZO WA KUSAHIHISHA NA MAJIBU

Tathmini ya Disemba – 2026

JUMLA YA ALAMA: 100

SEHEMU A: FASIHI SIMULIZI

SWALI LA 1 – ALAMA 20

(a) Bainisha kipera cha Fasihi Simulizi na utoe sababu. (Alama 2)

Jibu:

Kipera ni **ngano**. **(Alama 1)**

Sababu:

- Ni hadithi ya kubuni inayohusu wanyama wenye uwezo wa kuzungumza na kutenda kama binadamu.
- Ina mafunzo/maadili yanayolenga kumfundisha jamii.
- Ina mwanzo wa kimapokeo kama vile *"Hapo zamani za kale..."*
- Ina wahusika wanyama kama Kinyonga, Sungura na Kobe.
- Ina funzo/mwisho wenye maadili.

Alama 1 kwa sababu yoyote iliyo sahihi.

Jumla: 2

(b) Sifa nne za ngano. (Alama 4)

Alama 1 × 4.

Majibu yanayokubalika:

1. **Ina wahusika wa kubuni** – Sungura, Kinyonga na Kobe wametumiwa kama wahusika.
2. **Wanyama wamepewa sifa za kibinadamu** – wanaongea, kufikiri, kupanga na kuomba msamaha.
3. **Hutoa mafunzo/maadili** – inafundisha unyenyekevu, subira na kutowadharau wengine.
4. **Husimuliwa kwa mdomo** – msimulizi husimulia mbele ya hadhira.
5. **Huwa na wahusika wengi au wachache** kulingana na ujumbe wa hadithi.
6. **Huwa na mwanzo wa kimapokeo** kama *"Hapo zamani za kale..."*
7. **Huwa na migogoro** – Sungura na Kinyonga wanagombania uwezo wa kushinda mbio.
8. **Huwa na funzo** – akili, subira na unyenyekevu ni muhimu.
9. **Hushirikisha hadhira** wakati wa masimulizi.
10. **Inaweza kutumia marudio** ili kusisitiza ujumbe.
11. **Hutumia lugha ya kisanaa** kama tashbihi na methali.
12. **Huburudisha jamii** kupitia matukio ya kuvutia na ya kuchekesha.

Alama 1 × 4 = 4

(c) Madhumuni matatu ya utambaji wa ngano katika jamii. (Alama 6)

Alama 2 × 3.

1. Kuelimisha jamii

Ngano huwafundisha watu maadili mema kama vile unyenyekevu, subira, heshima na busara.

2. Kuburudisha

Ngano huwafurahisha na kuwaburudisha wasikilizaji kupitia matukio ya kuchekesha na ya kusisimua.

3. Kuhifadhi utamaduni

Ngano huhifadhi mila, desturi, imani, historia na hekima za jamii na kuzirithisha kutoka kizazi kimoja hadi kingine.

Madhumuni mengine yanayokubalika:

- Kukuza lugha.
- Kushauri vijana.
- Kuonya dhidi ya tabia mbaya.
- Kuimarisha umoja.
- Kukuza maadili.
- Kukuza ubunifu.
- Kupitisha hekima za wazee.
- Kuendeleza utambulisho wa jamii.
- Kukuza vipawa vya usimulizi.

Alama 2 × 3 = 6

(d) Njia nne za kufanya hadithi ivutie wakati wa uwasilishaji. (Alama 8)

Alama 2 × 4.

Majibu yanayokubalika:

1. **Kubadilisha sauti** kulingana na mhusika na tukio.
2. **Kutumia ishara za mwili** kama mikono, kichwa na mwendo wa mwili.
3. **Kutumia ishara za uso** kuonyesha furaha, hasira, huzuni au mshangao.
4. **Kushirikisha hadhira** kwa maswali na majibu.
5. **Kutumia nyimbo** zinazohusiana na tukio.
6. **Kutumia maigizo** wakati wa kusimulia.
7. **Kutumia marudio** ya maneno au sentensi muhimu.
8. **Kutumia vichekesho** pale panapofaa.
9. **Kutumia sauti za wanyama** au kuiga vitendo vyao.
10. **Kutumia pause/myao** ili kujenga taharuki.
11. **Kutumia mavazi au vifaa** vinavyohusiana na hadithi.
12. **Kutumia lugha ya picha na tamathali za semi.**

Alama 2 × 4 = 8

JUMLA YA SWALI LA 1: 20

SEHEMU B: USHAIRI

SWALI LA 2 – ALAMA 20

(a) (i) Beti na mishororo. (Alama 2)

- Shairi lina **beti 5**. – **Alama 1**
- Kila ubeti una **mishororo 4**. – **Alama 1**

Jumla: 2

(a) (ii) Urari wa vina katika ubeti wa kwanza. (Alama 2)

Mishororo ya kwanza:

Mti uliopandwa vema, matunda mema **hutoa,**

Kijana aliye na wema, jamii humsifi**a,**

Elimu ni taa njema, gizani inayoangan**za,**

Soma kwa bidii mwana, kesho yako kuijen**ga.**

Mishororo ina **vina vya mwisho vinavyotofautiana**, ingawa baadhi vinaishia kwa sauti zinazofanana.

Jibu linalokubalika:

- Vina vya mwisho si vya urari kamili.
- Vina vinaonekana kuwa **hutoa / humsifia / inayoangaza / kuijenga**.
- Mshairi ametumia uhuru wa kishairi katika kupanga vina.

Alama 2

Kumbuka: Usimwadhibu mwanafunzi anayeeleza kwa usahihi kuwa vina havina urari maalumu katika ubeti huu.

(b) Uhuru/ustaarabu wa mshairi. (Alama 4)

Maana:

Uhuru wa mshairi ni **uwezo wa mshairi kuvunja baadhi ya kanuni za kawaida za lugha au sarufi ili kukidhi mahitaji ya kishairi kama vina, mizani, msisitizo au mtindo.**

Mifano:

1. *"Soma kwa bidii mwana, kesho yako kuijenga."*
   – Mpangilio wa maneno umewekwa kwa mtindo wa kishairi.
2. *"Kijana wewe ni nguvu, taifa linakutegemea."*
   – Mshairi ametumia mpangilio wa maneno unaosisitiza ujumbe.
3. *"Uvivu uweke mbali, bidii ikuongoze."*
4. *"Uadilifu uwe ngao, bidii iwe mwongozo."*

Alama:

- Maelezo ya uhuru wa mshairi – **2**
- Mfano 1 – **1**
- Mfano 2 – **1**

Jumla: 4

(c) Dhamira kuu ya shairi. (Alama 3)

Dhamira kuu ni **kuhimiza vijana kusoma, kufanya kazi kwa bidii, kuwa na subira, kutumia vipawa vyao na kuwa na maadili mema ili kujenga maisha na taifa lenye maendeleo.**

Vipengele vinavyokubalika:

- Bidii katika elimu.
- Uvumilivu.
- Heshima kwa wazazi na walimu.
- Matumaini.
- Uadilifu.
- Maendeleo ya taifa.
- Matumizi ya vipawa.
- Kuwajibika kwa vijana.
- Kuepuka uvivu.

Alama 3 kwa maelezo yaliyokamilika.

(d) Ubeti wa kwanza kwa lugha ya nathari. (Alama 4)

Jibu mfano:

Mti unapopandwa na kutunzwa vizuri, huzaa matunda mazuri. Vivyo hivyo, kijana mwenye tabia njema hupendwa na kusifiwa na jamii. Elimu humsaidia mtu kupata mwanga na maarifa ya kukabiliana na changamoto za maisha. Kwa hivyo, kijana anapaswa kusoma kwa bidii ili kujenga maisha yake ya baadaye.

Alama:

- Wazo la mti na matunda – 1
- Kijana mwenye wema kusifiwa – 1
- Elimu kama mwanga – 1
- Kusoma kwa bidii kwa ajili ya kesho – 1

Jumla: 4

(e) Maana ya msamiati. (Alama 5)

(i) Inaangaza – (Alama 1)

- Inatoa mwanga.
- Inaonyesha njia.
- Inaelimisha/kumwezesha mtu kuelewa.

(ii) Nguzo – (Alama 1)

- Msaada mkuu.
- Mtu muhimu wa kutegemewa.
- Msingi wa jambo.

(iii) Uvivu – (Alama 1)

- Kutopenda kufanya kazi.
- Kukosa bidii.
- Hali ya kutotaka kujitahidi.

(iv) Vikwazo – (Alama 1)

- Matatizo.
- Changamoto.
- Mambo yanayozuia kufikia lengo.

(v) Uadilifu – (Alama 1)

- Tabia ya kuwa mwaminifu na mwenye haki.
- Kutenda mema na kwa unyoofu.
- Kuwa na maadili mema.

Jumla: 5

JUMLA YA SWALI LA 2: 20

SEHEMU C: TAMTHILIA

SWALI LA 3 – ALAMA 30

Muhimu kwa msahihishaji: Maswali (a)(i)–(iii) yanahusiana na muktadha wa kazi nzima iliyotolewa darasani. Kwa hiyo, jibu lifuate toleo la tamthilia/riwaya lililotumiwa na shule. Majibu yafuatayo ni mwongozo unaotokana na dondoo lenyewe.

(a) Weka dondoo katika muktadha wake.

(i) Msemaji mkuu wa dondoo ni nani? (Alama 2)

Jibu: Kizito.

Ushahidi:

- Kizito ndiye anayetoa hoja kuhusu ukosefu wa ajira.
- Anazungumzia ahadi za uongo kwa vijana.
- Anatoa maoni kuhusu mfumo mpya wa elimu.

Alama 2

(ii) Msemewa ni nani? (Alama 2)

Msemewa hutegemea muktadha wa kazi nzima na mhusika anayelengwa na kauli ya Kizito.

Majibu yanayokubalika ni mhusika ambaye Kizito alikuwa akizungumza naye katika tukio hilo, mradi mwanafunzi athibitishe kwa kurejelea kazi nzima.

Alama 2 kwa jibu sahihi lenye muktadha.

(iii) Mazingira ya mazungumzo. (Alama 2)

Mazungumzo yanafanyika katika **mazingira ya kijamii ambapo wahusika wanajadili masuala ya siasa, ukosefu wa ajira, elimu, umaskini na upatikanaji wa nafasi za kazi.**

Majibu mengine yanayokubalika:

- Mazingira ya mjadala wa kijamii.
- Mazingira ya vijana wanaojadili changamoto za ajira.
- Mazingira ya kijiji/jamii inayokabiliwa na matatizo ya kiuchumi.
- Mazingira yenye mjadala kuhusu mfumo wa elimu na ajira.

Alama 2

(b) Maudhui manne. (Alama 8)

Alama 2 × 4.

1. Ukosefu wa ajira

Kizito anaonyesha kuwa vijana wengi wamesoma lakini hawapati kazi.

2. Umaskini

Ukosefu wa kazi na mishahara midogo unaendeleza hali ya umaskini katika jamii.

3. Uongo na ahadi za kisiasa

Kizito analalamikia ahadi zilizotolewa kwa vijana lakini hazijatimizwa.

4. Elimu na ujuzi

Wahusika wanajadili mfumo wa elimu unaosisitiza ujuzi na utendaji badala ya ukariri.

5. Upendeleo katika ajira

Mode analalamikia nafasi za kazi kutolewa kwa mapendeleo badala ya haki.

6. Bidii na kazi

Mbuyu anashauri watu kufanya kazi za mikono kama uvuvi badala ya kutegemea ajira za ofisini.

7. Uongozi mbaya

Kauli kuhusu ahadi za uongo inaweza kuonyesha changamoto za uongozi.

8. Maendeleo

Mfumo wa elimu unaolenga ujuzi unaonyeshwa kama njia ya kuwawezesha vijana kujitegemea.

Alama 2 × 4 = 8

(c) Sifa nne za Kizito. (Alama 8)

Alama 2 × 4.

1. Mzalendo

Anajali hali ya vijana na mustakabali wa jamii yake.

2. Mzungumzaji/mchanganuzi

Anaweza kueleza matatizo ya ajira na elimu kwa kina.

3. Mtu anayepinga dhuluma

Anapinga ahadi za uongo na upendeleo katika ajira.

4. Mtu mwenye fikra pana

Anaona umuhimu wa mfumo mpya wa elimu unaolenga ujuzi.

5. Mchambuzi wa masuala ya kijamii

Anaelewa uhusiano kati ya elimu, ajira na maisha ya vijana.

6. Mtu mwenye malalamiko

Analalamikia ukosefu wa ajira na ahadi ambazo hazijatimizwa.

7. Mwenye matumaini

Anaamini kuwa mfumo wa elimu unaolenga ujuzi unaweza kusaidia vijana.

8. Mtu jasiri

Anasema waziwazi kuhusu matatizo yanayoikabili jamii.

Alama 2 × 4 = 8

(d) Umaskini na bidii katika jamii ya leo. (Alama 8)

Alama 2 × 4 au maelezo manne yenye hoja na ufafanuzi.

Umaskini

- Baadhi ya familia hukosa kipato cha kutosha kukidhi mahitaji ya msingi.
- Ukosefu wa ajira huwafanya vijana kutegemea wazazi au jamaa.
- Gharama ya elimu na maisha inaweza kuathiri familia maskini.
- Baadhi ya watu huishi kwa kazi za muda au biashara ndogo.

Bidii

- Vijana hutafuta ujuzi wa kiufundi ili kujiajiri.
- Watu huanzisha biashara ndogo badala ya kusubiri ajira.
- Wanafunzi husoma kwa bidii ili kupata nafasi nzuri za baadaye.
- Wakulima na wajasiriamali hufanya kazi kwa bidii ili kuboresha maisha yao.
- Watu hutumia teknolojia kutafuta masoko na fursa za kazi.
- Kujifunza ujuzi kama ushonaji, useremala, upishi, ICT na ufundi huwasaidia kujitegemea.

Alama 8

JUMLA YA SWALI LA 3: 30

SEHEMU D: HADITHI FUPI

SWALI LA 4 – ALAMA 30

(a) Mbinu tano za kisanaa na kiandishi. (Alama 10)

Alama 2 × 5.

1. Tashbihi

“Alitembea karibu kilomita tano kwenda shule.”

Mwandishi pia anaweza kutumika tashbihi pale jambo linapolinganishwa kwa kutumia *kama, mfano wa, mithili ya* n.k.

Alama 2 ikiwa mwanafunzi ametambua na kueleza kwa usahihi.

2. Jazanda

“Mkombozi wa Maji” ni jazanda ya ubunifu na matumaini ya kutatua tatizo la ukosefu wa maji.

3. Takriri

Kauli:

“fanya kazi kwa bidii na usikate tamaa.”

Wazo la bidii na kutokata tamaa linarudiwa mara kadhaa katika hadithi.

4. Kinaya

Musa, ambaye ni mtoto wa familia maskini, ndiye anayefanikiwa kutumia vifaa vya bei rahisi na kushinda mashindano.

5. Dayolojia

Mazungumzo kati ya:

- Musa na Bi. Amina.
- Musa na vijana waliomdhihaki.
- Wazazi na Musa.

Dayolojia husaidia kufichua wahusika na kuendeleza matukio.

6. Taswira

Mwandishi anataja:

- maboksi,
- chupa za plastiki,
- waya,
- makopo,
- mabaki ya mbao.

Hii humwezesha msomaji kuona mazingira na vifaa alivyotumia Musa.

7. Methali/kauli ya hekima

“Mabadiliko makubwa huanza kwa hatua ndogo.”

Inasisitiza umuhimu wa kuanza na hatua ndogo.

8. Utabiri

Mwandishi anaonyesha mapema kuwa Musa ana kipawa kikubwa cha kujifunza, jambo linalotayarisha msomaji kwa mafanikio yake.

9. Sitiari

“Umaskini si mwisho wa ndoto.”

Umaskini unaonyeshwa kama kikwazo ambacho hakipaswi kumzuia mtu kutimiza ndoto.

10. Uhuishaji/Tashihisi

Iwapo mwanafunzi atatoa mfano unaofaa wa kuipa hali au kitu kisicho binadamu sifa za kibinadamu, ukubali.

Alama 2 × 5 = 10

(b) Mgogoro mkuu na suluhisho. (Alama 10)

Mgogoro mkuu:

Mgogoro mkuu ni **Musa kupambana na umaskini na ukosefu wa vifaa huku akijaribu kutimiza ndoto yake ya elimu na kushiriki katika mashindano ya ubunifu.**

Chanzo cha mgogoro:

- Familia yake ni maskini.
- Hana fedha za kununua vifaa vya mradi.
- Baadhi ya vijana wanamdharau na kumcheka.
- Anaishi katika mazingira yenye changamoto.
- Ana wajibu wa kuwasaidia wazazi wake.

Wahusika:

- Musa.
- Bi. Amina.
- Wazazi wa Musa.
- Vijana waliomcheka.

Jinsi Musa alivyokabiliana na mgogoro:

- Hakukata tamaa.
- Alitafuta vifaa vilivyotupwa.
- Alitumia ubunifu.
- Alifanya kazi kwa bidii.
- Alisikiliza ushauri wa Bi. Amina.
- Alitengeneza kifaa cha kuhifadhi maji.
- Aliwasilisha mradi wake kwa ujasiri.

Suluhisho:

Musa alishinda mashindano na kupata ufadhili wa masomo na vifaa vya shule. Baadaye alisoma, akawa mhandisi na akawasaidia vijana wengine.

Mgawanyo unaokubalika:

- Mgogoro mkuu – 2
- Chanzo – 2
- Wahusika – 2
- Kukabiliana na mgogoro – 2
- Suluhisho – 2

Jumla: 10

(c) Ujumbe mitano. (Alama 10)

Alama 2 × 5.

1. Bidii huleta mafanikio

Musa anafanya kazi kwa bidii licha ya umaskini na mwishowe anashinda mashindano.

2. Umaskini si mwisho wa maisha

Ingawa Musa anatoka katika familia maskini, anafaulu kwa kutumia uwezo na juhudi zake.

3. Elimu ni muhimu

Musa anathamini elimu na baadaye anakuwa mhandisi.

4. Ubunifu unaweza kutatua matatizo ya jamii

Musa anatumia vifaa vilivyotupwa kutengeneza kifaa cha kuhifadhi maji.

5. Tusikate tamaa

Musa hakukubali ukosefu wa fedha umzuie kushiriki mashindano.

6. Ushauri mzuri ni muhimu

Bi. Amina anamshauri Musa kutumia vitu vinavyopatikana katika mazingira yake.

7. Vipawa vinapaswa kutumiwa

Musa anatumia kipawa chake cha ubunifu kutatua tatizo la maji.

8. Kuwasaidia wengine ni jambo jema

Baadaye Musa anarudi kijijini na kuwafundisha vijana ubunifu na ujasiriamali.

9. Dhihaka za watu hazipaswi kumzuia mtu

Musa anachekwa lakini anaendelea na kazi yake.

10. Mafanikio yanahitaji uvumilivu

Musa anatumia siku kadhaa kutengeneza mradi wake na hatimaye anafanikiwa.

11. Vijana wanaweza kuleta mabadiliko

Musa anatumia ujuzi wake kutatua tatizo la maji katika jamii.

12. Mazingira si kikwazo cha mafanikio

Musa anatoka mazingira magumu lakini anafikia malengo yake.

Alama 2 × 5 = 10

JUMLA YA SWALI LA 4: 30

MWONGOZO WA JUMLA

Msahihishaji akumbuke:

1. Kubali **majibu mengine sahihi** hata kama hayajaandikwa katika mwongozo huu.
2. Katika maswali ya **maudhui, dhamira, ujumbe na sifa za wahusika**, mwanafunzi apewe alama ikiwa ameunga mkono jibu lake kwa ushahidi unaofaa.
3. Usikatae jibu kwa sababu ya tofauti ndogo ya maneno ikiwa **maana kuu ni sahihi**.
4. Katika maswali ya fasihi, mifano sahihi kutoka katika kifungu/hadithi/shairi ikubalike.
5. Katika maswali ya **kazi nzima ya fasihi**, mwanafunzi atumie mifano kutoka katika kazi aliyosomea darasani.

6. Makosa madogo ya kisarufi yasiyoathiri maana yasifute alama ya hoja sahihi.
7. Majibu yanayorudiwa kwa maana ileile yasipewe alama mara mbili.
8. Pale swali linapotaka **hoja na maelezo**, hoja pekee bila ufafanuzi isipate alama kamili.
9. Kwa maswali yenye **Alama 2 kwa kila hoja**, toa alama 1 kwa hoja sahihi na alama 1 kwa ufafanuzi/ushahidi unaofaa.

GRADE 10– FINE ARTS

MARKING SCHEME

SECTION A: 30 MARKS

1.

a) Shape is a two-dimensional enclosed area defined by lines, colours, tones or boundaries.
(1 mark)

b) Any two:

- Geometric shapes
- Organic shapes
- Regular shapes

- Irregular shapes
  (2 marks)

c)

- **Shape** is two-dimensional and has length and width.
- **Form** is three-dimensional and has length, width and depth.
  (2 marks)

2.

a) Texture is the surface quality or appearance of an object that can be seen or felt.
(1 mark)

b) Any two:

- Roughness of tree bark
- Smoothness of leaves
- Texture of rocks
- Sand
- Animal fur
- Grass
- Tree wood
  (2 marks)

c) Any two:

- Hatching
- Cross-hatching
- Stippling
- Dry-brush technique
- Frottage/rubbing
- Scumbling
  (2 marks)

3.

a) Any three appropriate materials/tools represented by the diagrams, for example:

- Palette
- Canvas
- Easel
  (3 marks)

b) Any two correctly matched uses:

- **Drawing board** – provides a firm, flat surface for drawing.
- **Ruler** – used for measuring and drawing straight lines.
- **Paintbrush** – used for applying paint.
- **Pencil** – used for sketching, outlining and shading.
- **Palette** – used for holding and mixing colours.
- **Eraser** – used to remove unwanted pencil marks.
- **Easel** – supports an artwork while the artist is working.
  (2 marks)

4.

a) Complementary colours are pairs of colours that are opposite each other on the colour wheel.
(1 mark)

b) Any two pairs:

- Red and green
- Blue and orange
- Yellow and violet/purple
  (2 marks)

c) Any two:

- Creates strong contrast.
- Makes colours appear more vivid.
- Creates emphasis.
- Attracts the viewer's attention.
- Produces visual excitement.
  (2 marks)

5.

a) Printmaking is the process of producing images by transferring an image or design from a prepared surface onto another surface, usually paper or fabric.
(1 mark)

b) Any two:

- Relief printing
- Linocut
- Woodcut
- Monoprinting
- Stencil printing
- Screen printing
- Intaglio
  (2 marks)

c) Any two:

- Cardboard
- Foam
- Wood
- Linoleum
- Potatoes/vegetables
- Polystyrene
- Rubber
  (2 marks)

6.

a) The environment can provide subjects, colours, forms, patterns and textures for artworks.
(1 mark)

b) Any two:

- Leaves
- Seeds
- Twigs
- Stones
- Sand
- Clay
- Dried grass
- Bark

(2 marks)

c) Any two well-explained points:

- Artists can create posters and paintings that educate people about environmental conservation.
- Artists can use recycled materials to demonstrate the importance of waste reduction.
- Art can communicate the effects of pollution, deforestation and climate change.
- Public artworks can encourage communities to protect natural resources.
- Exhibitions can raise awareness about environmental issues.

(2 marks)

SECTION B: 50 MARKS

7.

a) Any three stages:

1. Observe and analyse the arrangement.
2. Identify the overall proportions and relationships between objects.
3. Lightly sketch the basic shapes.
4. Establish the position of objects on the page.
5. Refine the outlines.
6. Add details, texture and tonal values.
7. Apply shadows and highlights.

Any three correctly described stages.
(3 marks)

b) Any two:

- Use strong highlights and dark reflected shadows to show the reflective surface.
- Use sharp tonal contrasts to represent reflected light.
- Include distorted reflections of surrounding objects.
- Use smooth blending rather than uniform shading.
- Leave selected areas lighter to represent reflected light.

(2 marks)

c) Any three:

- Highlight
- Mid-tone
- Core shadow
- Reflected light
- Cast shadow

Any three.
(3 marks)

d) Any two:

- Determines where highlights and shadows should be placed.
- Helps maintain consistency in shading.
- Makes the objects appear three-dimensional.
- Helps create realistic cast shadows.
- Establishes the direction from which illumination reaches the objects.
  (2 marks)

8.

a) Any two:

- Balance
- Symmetry
- Repetition
- Rhythm
- Emphasis
- Unity
- Pattern
  (2 marks)

b) Radial balance is created when visual elements are arranged around a central point, with lines, shapes or forms radiating outward from the centre.
(2 marks)

c) Any three:

- Use a contrasting colour for the focal point.
- Make the focal object larger or more detailed.
- Place the main subject in a prominent position.
- Use strong tonal contrast.
- Surround the focal point with less dominant elements.
- Use directional lines to lead the eye towards the focal point.
  (3 marks)

d) Any three:

- Balance
- Unity
- Clear focal point
- Appropriate proportion
- Good use of space
- Rhythm
- Harmony
- Effective contrast
  (3 marks)

9.

a) Perspective is a method of representing three-dimensional objects and space on a two-dimensional surface so that objects appear to have depth and distance.
(2 marks)

b) Objects that are closer to the viewer are generally drawn larger, while objects farther away are drawn smaller.
(2 marks)

c) Any two:

- Place one object partly in front of another.
- Allow foreground objects to obscure parts of background objects.
- Vary the position of objects at different depths.
- Use intersecting forms to establish spatial relationships.
  (2 marks)

d) Any two:

- Use brighter, stronger colours in the foreground and lighter, less intense colours in the distance.
- Use warmer/more intense colours for nearer objects and cooler, less intense colours for distant objects.
- Reduce colour contrast as objects move into the distance.
- Use bluish or greyish tones for distant mountains and objects.
  (2 marks)

e) Any two:

- Rocks
- Trees
- Grass
- Flowers
- Fence
- Road
- Buildings
- People
- Bushes
  (2 marks)

10.

a) Sculpture is a three-dimensional form of art in which materials are shaped, modelled, carved, constructed or assembled to create an artwork.
(2 marks)

b) Any three:

- Modelling
- Carving
- Casting
- Construction/assembling
- Papier-mâché
- Welding
- Joining
  (3 marks)

c) Any two:

- Pressing objects or tools into the wet clay to create impressions.
- Scratching lines or patterns into the clay.
- Adding clay to form raised textures.
- Using combs, sticks or other tools to create surface patterns.
- Stamping natural materials into the clay.
  (2 marks)

d) Any three:

- Handle sculpting tools carefully.
- Keep the work area clean.
- Store tools safely after use.
- Avoid throwing or misusing tools.
- Wash hands after working with clay.
- Avoid inhaling dry clay dust.
- Use protective equipment where necessary.
- Report damaged tools to the teacher.
  (3 marks)

11.

a) Any two:

- Traditional ceremonies
- Traditional clothing
- Architecture
- Cultural symbols
- Community occupations
- Traditional lifestyles
- Landscapes
- Religious or social practices
- Indigenous patterns and motifs
  (2 marks)

b) Any two well-explained points:

- Preserves cultural identity for future generations.
- Records traditions that may otherwise disappear.
- Educates young people about their heritage.
- Promotes appreciation of cultural diversity.
- Provides historical documentation.
- Strengthens community identity.
  (2 marks)

c) Any three stages:

1. **Description** – identify and describe what is visible in the artwork.
2. **Analysis** – examine the elements and principles used by the artist.
3. **Interpretation** – explain the possible meaning, message or feelings communicated.
4. **Evaluation** – make a supported judgement about the effectiveness or quality of the artwork.

Award **1 mark each** for any three appropriately described stages.
(3 marks)

d) Any three:

- Selling original paintings and drawings.
- Selling sculptures and crafts.
- Taking commissions for artwork.
- Producing illustrations for publications.
- Teaching art skills.
- Participating in exhibitions.
- Selling prints, cards or reproductions.
- Creating murals for clients.
- Providing graphic/visual design services.
- Selling artwork through online platforms.
  (3 marks)

GRADE 10 FRENCH

MARKING SCHEME / ANSWERS

SECTION A: 30 MARKS

1:

Possible answers:

a) **Je m'appelle David.**
b) **J'ai seize ans.**
c) **J'habite à Nakuru.**
d) **Je suis Kenyan/Kenyane.**
e) **Enchanté(e) de faire ta connaissance.**

5 × 1 = 5 marks

Accept other grammatically correct and contextually appropriate responses.

2:

a) Father – **père**

b) Mother – **mère**

c) Brother – **frère**

d) Sister – **sœur**

e) Grandmother – **grand-mère**

5 × 1 = 5 marks

3:

a) Marie est **intelligente**.

b) Paul est **grand**.

c) Les filles sont **heureuses**.

d) Les garçons sont **actifs**.

e) Ma sœur est **sportive**.

5 × 1 = 5 marks

4:

a) 7:00 – **Il est sept heures.**

b) 8:30 – **Il est huit heures et demie.**

c) 10:15 – **Il est dix heures et quart.**

d) 12:00 – **Il est midi.**

e) 18:45 – **Il est dix-huit heures quarante-cinq.**

5 × 1 = 5 marks

Accept: **Il est sept heures du matin**, **Il est six heures quarante-cinq du soir**, etc., where appropriate.

5:

a) Quel âge a Kevin ?

Kevin a seize ans.

(1 mark)

b) Où est-ce qu'il étudie ?

Il étudie dans une école secondaire à Eldoret.

(1 mark)

c) Pourquoi est-il très occupé pendant la semaine ?

Il est très occupé parce qu'il est très occupé par ses études.

Better answer:

Il est très occupé par ses études.

(2 marks)

d) À quelle heure se lève-t-il le samedi ?

Il se lève à sept heures.

(1 mark)

e) Comment aide-t-il sa mère ?

Il aide sa mère à nettoyer la maison.

(1 mark)

f) Que fait-il le samedi après-midi ?

Il joue au football avec ses amis.

(1 mark)

g) Avec qui va-t-il à l'église le dimanche ?

Il va à l'église avec ses parents.

(1 mark)

h) Pourquoi aime-t-il rendre visite à sa grand-mère ?

Il aime rendre visite à sa grand-mère parce qu'elle raconte des histoires intéressantes.

(2 marks)

SECTION B: 50 MARKS

6:

A. Dialogue – 5 marks

Possible answers:

Élève: Bonjour, madame.

Professeur: Bonjour.

Élève: Excusez-moi, puis-je entrer ?

Professeur: Oui, entrez.

Élève: Je suis désolé(e) d'être en retard.

Professeur: Ce n'est pas grave.

Élève: Où est-ce que je peux m'asseoir ?

Professeur: Vous pouvez vous asseoir là-bas.

Élève: Merci, madame.

Professeur: De rien.

5 × 1 = 5 marks

Accept other appropriate responses.

B.

Sample answers:

1. **J'étudie le français à l'école.**
2. **Je lis des livres à la bibliothèque.**
3. **Je joue au football pendant la récréation.**
4. **Je fais des expériences au laboratoire.**
5. **Je mange avec mes amis à la cantine.**

5 × 1 = 5 marks

Award marks for relevant, grammatically acceptable sentences.

7:

a) Tu **étudies** le français tous les jours.

b) Nous **faisons** nos devoirs après le dîner.

c) Elle **va** au marché avec sa mère.

d) Vous **écrivez** une lettre à votre professeur.

e) Ils **jouent** du football le samedi.

f) Je **lis** un livre intéressant.

g) Mes amis **sont** très heureux.

h) Nous **avons** une nouvelle voiture.

i) Paul **boit** de l'eau après le sport.

j) Vous **arrivez** à huit heures.

10 × 1 = 10 marks

8:

A. Negative – 5 marks

a) J'aime le français.
→ **Je n'aime pas le français.**

b) Nous avons une voiture.
→ **Nous n'avons pas de voiture.**

c) Elle mange du riz.
→ **Elle ne mange pas de riz.**

d) Ils vont à Nairobi.
→ **Ils ne vont pas à Nairobi.**

e) Tu regardes la télévision.
→ **Tu ne regardes pas la télévision.**

5 × 1 = 5 marks

B. Interrogative – 5 marks

Possible forms include **Est-ce que**, inversion, or appropriate spoken-question structures.

a) Tu habites à Kisumu.
→ **Est-ce que tu habites à Kisumu ?**

b) Elle parle français.
→ **Est-ce qu'elle parle français ?**

c) Vous aimez le sport.

→ Est-ce que vous aimez le sport ?

d) Ils jouent au football.
→ Est-ce qu'ils jouent au football ?

e) Il travaille à l'hôpital.
→ Est-ce qu'il travaille à l'hôpital ?

5 × 1 = 5 marks

Other correct forms such as **Habites-tu à Kisumu ?** should be accepted.

9:

Sample Answer

Ma journée scolaire

Je me réveille à six heures chaque matin. Je me lave, je m'habille et je prends mon petit déjeuner. À sept heures, je vais à l'école en bus. Les cours commencent à huit heures. J'étudie plusieurs matières comme les mathématiques, l'anglais, le français et les sciences. Ma matière préférée est le français parce que j'aime apprendre les langues. Pendant la récréation, je joue avec mes amis. Après l'école, je rentre à la maison, je fais mes devoirs et je dîne avec ma famille. Je me couche à dix heures.

Suggested marking

Area	Marks
Morning routine	2
Journey to school	1
Subjects studied	2
Favourite subject and reason	2
Break/after-school activities	2
Grammar, vocabulary and organisation	1
Total	**10**

Accept any relevant, coherent composition of 80–100 words.

10:

Sample Answer

Cher Sophie,

Comment vas-tu ? Moi, je vais très bien. Je voudrais te parler de mon école. Mon école s'appelle Green Valley Secondary School et elle se trouve à Nakuru, au Kenya. Il y a beaucoup d'élèves dans notre école. Nous étudions plusieurs matières, notamment le français, les mathématiques, les sciences et l'anglais. Notre école possède une bibliothèque, un laboratoire, une salle informatique et un grand terrain de sport. Ma matière préférée est le français. J'aime aussi jouer au football avec mes amis. J'aime mon école parce que les enseignants sont gentils et les élèves travaillent bien.

À bientôt !

Ton ami,
David

Suggested marking

Requirement	Marks
Appropriate greeting	1
School name and location	2
Number of learners	1
Subjects studied	1
School facilities	2
Favourite subject/activity	1
Reason for liking school	1
Appropriate closing and overall accuracy	1
Total	**10**

GRADE 10 GENERAL SCIENCE

MARKING SCHEME / ANSWERS

SECTION A – 30 MARKS

1.

a) Scientific knowledge is knowledge obtained through **systematic observation, experimentation, investigation and evidence**.
(1 mark)

b) Any three:

- Improves medical care and treatment.
- Improves agricultural production.
- Promotes communication and transportation.
- Provides solutions to environmental problems.
- Improves access to clean water and sanitation.
- Promotes technological development.
- Improves industrial production.
  (3 marks)

c) Evidence helps scientists to **support or reject conclusions objectively and make reliable decisions**.
(1 mark)

2.

a) The apparatus is a **test tube**.
(1 mark)

b) Any two:

- Holding small quantities of substances.
- Carrying out chemical reactions.
- Heating small quantities of substances.
- Observing changes during an experiment.
  (2 marks)

c) Any two:

- Wear appropriate protective equipment.
- Do not point the mouth of a heated test tube towards yourself or another person.
- Use a test-tube holder when heating.
- Heat gently and uniformly.
- Do not look directly into a heated test tube.

- Allow hot apparatus to cool before handling.
  (2 marks)

3.

a) Plant cell.
(1 mark)

b) Chloroplasts.
(1 mark)

c) Chloroplasts contain **chlorophyll**, which absorbs light energy for photosynthesis.
(1 mark)

d) Any two:

Plant cell	Animal cell
Has a cell wall	No cell wall
Has chloroplasts in photosynthetic cells	No chloroplasts
Has a large permanent vacuole	Usually lacks a large permanent vacuole
Usually has a more fixed shape	Usually has an irregular/flexible shape

(2 marks)

4.

Food chain:

Grass → Grasshopper → Frog → Snake → Hawk

a) Producer: **Grass**.
(1 mark)

b) Primary consumer: **Grasshopper**.
(1 mark)

c) Decomposers **break down dead organisms and organic matter, releasing nutrients back into the ecosystem**.
(1 mark)

d) If grasshoppers decrease greatly, the frogs would have **less food available**. Therefore, the frog population would likely **decrease** because of increased competition for food/starvation.
(2 marks)

5.

a) Filtration.
(1 mark)

b) The filtrate containing salt and water is heated to **evaporate the water**. The salt remains behind and can be collected. Alternatively, the solution may be concentrated and allowed to cool for crystallisation.
(2 marks)

c) A physical change does not produce a **new substance**, while a chemical change produces one or more **new substances**.
(1 mark)

d) Any one:

- Rusting of iron.
- Burning of wood.
- Cooking food.
- Digestion of food.
- Fermentation.
  (1 mark)

6.

a) Pressure is the **force acting normally per unit area**.

(1 mark)

b)

P=F/A

(1 mark)

c) Given:

6

a.– Incompressible
– Not corrosive
– Has low freezing point and high boiling point (any one)

b. $h_1p_1g = h_2p_2g$
$h_2 = \frac{h_1p_1}{p2}$
$= \frac{0.7 \times 13600}{1000kgm^{-3}}$ Kg/m^3 ✓1
$= 9.52m$

(2 marks)

c) Decrease the **area of contact**.
(1 mark)

SECTION B – 50 MARKS

7.

a) To prevent light from reaching that part of the leaf and provide a **control for investigating whether light is necessary for photosynthesis**.
(1 mark)

b) Starch.
(1 mark)

c) Iodine solution.
(1 mark)

d) The part containing starch turns **blue-black**.
(1 mark)

e)

Carbon dioxide + Water → Glucose + Oxygen

In the presence of **light energy and chlorophyll**.

(2 marks)

f) Any two:

- Carbon dioxide.
- Chlorophyll.
- Suitable temperature.
- Water.
  (2 marks)

8.

a) Uterus.
(1 mark)

b) The fallopian tube:

- Provides the passage through which the ovum moves from the ovary towards the uterus.
- Is the usual site where fertilisation occurs.
  (2 marks)

c) Fertilisation is the **fusion of the male and female gametes to form a zygote**.
(2 marks)

d)

- **Puberty** is the period when a person's body undergoes physical and hormonal changes that lead to sexual maturity.
- **Adolescence** is the broader stage of development between childhood and adulthood involving physical, emotional, psychological and social changes.
  (2 marks)

e) Any one:

- Promotes responsible reproductive decisions.
- Helps prevent sexually transmitted infections.
- Helps prevent unintended pregnancies.
- Promotes personal hygiene and healthy relationships.

- Enables adolescents to seek appropriate health services.
  (1 mark)

9.

a) Contaminated water may contain **pathogenic microorganisms or their toxins**. When a person drinks the water, the pathogens enter the digestive system, multiply or produce toxins and cause disease.
(2 marks)

b) Any three:

- Boil drinking water.
- Treat water using appropriate disinfectants.
- Use clean and protected water sources.
- Wash hands with soap.
- Dispose of human waste properly.
- Protect water sources from contamination.
- Wash fruits and vegetables using safe water.
  (3 marks)

c)

- A **pathogen** is a disease-causing organism or agent.
- A **vector** is an organism that carries and transmits a pathogen from one host to another.
  (2 marks)

d) Any one:

- Malaria.
- Yellow fever.
- Dengue fever.
- Sleeping sickness.
  (1 mark)

10.

a) Carbon dioxide (CO_2).
(1 mark)

b) Pass the gas through **limewater**. The limewater turns **milky/cloudy**, confirming the presence of carbon dioxide.
(2 marks)

c)

Hydrochloric acid + Calcium carbonate → Calcium chloride + Water + Carbon dioxide

(2 marks)

d) Any two:

- Effervescence/bubbling occurs.
- A gas is produced.
- Calcium carbonate chips gradually dissolve.

- The reaction mixture may show a temperature change.
  (2 marks)

e) The law of conservation of mass states that **mass is neither created nor destroyed during a chemical reaction**. Therefore, the total mass of the reactants equals the total mass of the products in a closed system.
(2 marks)

11.

a) A machine is a device that **makes work easier by changing the size or direction of an applied force, or both**.
(1 mark)

b)

- Load = **400 N**
- Effort = **100 N**

Formula:

$$MA = \frac{\text{Load}}{\text{Effort}}$$

Substitution:

$$MA = \frac{400}{100}$$

$$\boxed{MA = 4}$$

(2 marks)

c) Any two:

- Reduces the effort required.
- Changes the direction of an applied force.
- Enables heavy loads to be moved more easily.
- Increases speed or distance of movement where appropriate.
- Improves efficiency of performing certain tasks.
  (2 marks)

d)

$$\text{Efficiency} = \frac{\text{Mechanical Advantage (MA)}}{\text{Velocity Ratio (VR)}} \times 100\%$$

Given:

$$MA = 4, \qquad VR = 5$$

Therefore,

$$\text{Efficiency} = \frac{4}{5} \times 100\%$$

$$= 0.8 \times 100\%$$

$$\boxed{\text{Efficiency} = 80\%}$$

(2 marks)

e) Any one:

- Bottle opener.
- Pair of scissors.
- Wheelbarrow.
- Pliers.
- Knife.
- Screwdriver.
  (1 mark)

12.

a) O-**Electric bulb/lamp**.
(1 mark)

b) N-Dry cell/Battery.
(1 mark)

c) A switch is used to **open or close an electric circuit**, thereby stopping or allowing the flow of current.
(1 mark)

d)

- **Conductors** are materials that allow electric current to flow through them easily.
- **Insulators** are materials that strongly resist the flow of electric current.
  (2 marks)

e) Any two:

- Damaged or exposed wires.
- Overloading sockets.
- Handling electrical appliances with wet hands.
- Faulty electrical appliances.
- Poor wiring.
- Inserting objects into electrical sockets.
- Contact with live wires.
  (2 marks)

f) Any two:

- Repair damaged wires immediately.
- Avoid overloading sockets.
- Keep electrical appliances away from water.
- Switch off appliances when not in use.
- Use properly rated fuses/circuit breakers.
- Ensure electrical installations are carried out by qualified personnel.
  (2 marks)

13.

a) Density is the **mass per unit volume of a substance**. **(1 mark)**

b)

$$\rho = \frac{m}{V}$$

(1 mark)

c) Given:

$$\text{Density} = \frac{540}{200}$$

$$\boxed{\text{Density} = 2.7\ \text{g/cm}^3}$$

(2 marks)

d) The block will **sink**.

The metal block would sink.

Reason: Its density (**2.7 g/cm³**) is greater than the density of water (**1 g/cm³**).

The density of the metal block is greater than the density of water.
(2 marks)

e) Any two:

- Density of the object.
- Density of the fluid.
- Shape/volume of the object.
- Buoyant force acting on the object.
- Weight of the object relative to the upthrust.
  (2 marks)

GEOGRAPHY

MARKING SCHEME

SECTION A (30 MARKS)

1. (a)

(i) Percentage contribution of Tea in 2023

Tea production in 2023 = **110 tonnes**
Total production in 2023 = **360 tonnes**

$$\text{Percentage} = \frac{110}{360} \times 100$$

$$= \boxed{30.56\%}$$

(ii) Percentage increase in Maize production from 2021 to 2024

Production in 2021 = **120 tonnes**
Production in 2024 = **200 tonnes**

Increase:

$$200 - 120 = 80 \text{ tonnes}$$

$$\text{Percentage increase} = \frac{80}{120} \times 100$$

$= \boxed{66.67\%}$

(iii) Advantages of a comparative (grouped) bar graph

- Allows direct side-by-side comparison of individual crop quantities across several years.
- Clearly shows absolute values and changes in production over time.
- Makes trends and differences between crops easy to identify.

2. Causes of movements of the Earth

- Convectional currents in the mantle.
- Isostatic readjustments/isostasy.
- Gravitational/tectonic forces.
- Movement of magma within the crust.

3. Characteristics of a destructive plate boundary

- Plates move towards each other, causing convergence or collision.
- The denser plate sinks beneath the lighter plate into the mantle through subduction.
- Deep ocean trenches are formed.
- Violent volcanic activity may occur.
- Strong earthquakes are common.

4. Natural causes of earthquakes

- Sudden release of strain along fault lines due to tectonic movements.
- Volcanic eruptions and rapid movement of magma beneath the crust.
- Gravitational collapse of underground caves or rock structures.

5. Effects of earthquakes on crustal rocks

- Cause severe fracturing, faulting and displacement of rock layers.
- Trigger landslides and rockfalls, especially in mountainous areas.

6. (a) Factors determining the degree of folding in rocks

- Intensity or amount of compressional forces applied.
- Temperature of the rocks.
- Elasticity/flexibility or ductility of the rocks.
- Duration of time over which the compressional forces act.

(b) Effects of faulting on drainage systems

- Faulting may offset or divert river courses along fault lines.
- Fault scarps crossing river courses may create waterfalls or rapids.
- Uplifted fault blocks may form new drainage divides.
- Faulting may lead to the formation of Rift Valley lakes in grabens.

7. (b) Volcanic Diagram Identification

A – Crater
B – Vent/Central pipe (magma conduit)
C – Alternating layers of volcanic ash and lava (stratovolcano structure)

(c) Formation descriptions

(i) Anticline

- Formed when crustal rock layers are subjected to horizontal compressional forces.
- The forces push the rock strata towards each other.
- The layers bend upwards into an arch or crest-like structure.
- The upward arch is called an **anticline**.

(ii) Overthrust Fold (Nappe)

- Formed when very intense horizontal compressional forces act on rock layers.
- An asymmetrical fold develops and becomes an overfold.
- Continued compression causes the upper limb to fracture along a thrust plane.
- The upper limb slides horizontally over the lower limb, forming an **overthrust fold or nappe**.

i. An anticline (3 marks)

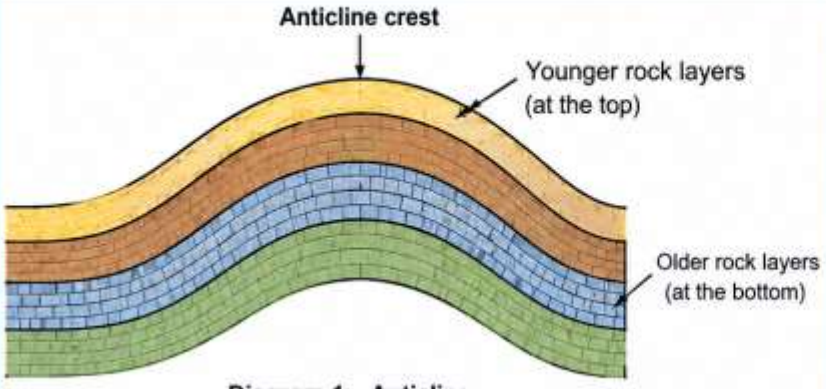


Diagram 1: Anticline

Formation of an anticline

1. Horizontal layers of sedimentary rocks are laid down in a basin.
2. Compressional forces from opposite sides act on the layers, causing them to bend upwards.
3. The oldest rocks are pushed to the centre, while the younger rocks are on the outer sides and at the top.
4. The result is an upward fold called an anticline, with the crest at the highest point.

ii. An overthrust fold (3 marks)

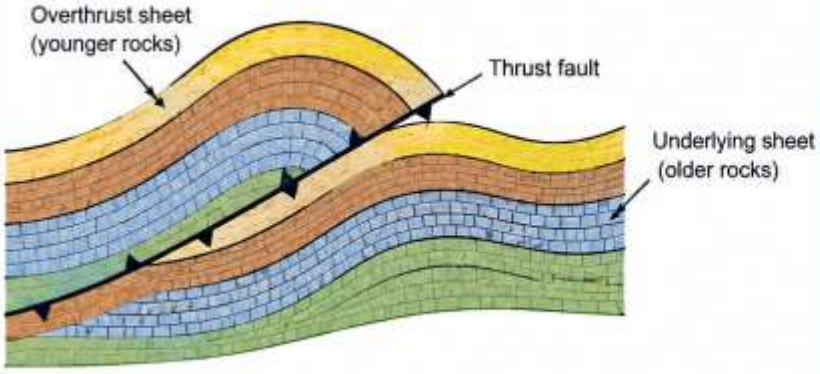


Diagram 2: Overthrust fold

Formation of an overthrust fold

1. Strong compressional forces act on the rock layers, causing intense folding and faulting.
2. One block of rocks is pushed over another along a low-angle thrust fault.
3. The upper sheet (younger rocks) moves over the lower sheet (older rocks).
4. The result is an overthrust fold, where the older rocks are found above the younger rocks.

SECTION B (50 MARKS)

8. (a) Plate Tectonic Theory

The theory states that the Earth's lithosphere, consisting of the crust and upper mantle, is divided into several rigid segments called **tectonic plates** which move slowly over the semi-molten asthenosphere.

(b) Types of plate boundaries

- Constructive/divergent boundary.
- Destructive/convergent boundary.
- Transform/conservative/neutral boundary.

(c) Evidence supporting Continental Drift Theory

Jigsaw fit of continents

- The coastlines of South America and Africa fit together remarkably well.

Fossil evidence

- Identical fossils, such as **Glossopteris** and **Mesosaurus**, have been found in rocks of the same age on continents that are now widely separated.

(d) Problems posed by folding features

- Fold mountains have steep terrain which creates barriers to transport and communication.
- Steep slopes encourage soil erosion and landslides.
- High mountain ranges may create rain-shadow areas with low rainfall and poor agricultural production.

9. (a) Geographic Information System (GIS)

A **Geographic Information System (GIS)** is a computer-based system used to capture, store, manipulate, analyse, manage and present geographical or spatial data.

(b) Vector and Raster Data Structures

Vector data

- Represents geographical features using discrete **points, lines and polygons**.
- Features are represented using specific coordinates.

Raster data

- Represents geographical features using a continuous grid of **cells or pixels**.
- Each cell contains a value representing a particular attribute.

(c) Applications of GIS in agricultural resource management

- Precision farming and soil fertility mapping.
- Crop yield estimation and crop health monitoring using satellite imagery.
- Land suitability classification.
- Water-resource management.
- Monitoring changes in agricultural land use.

10. (a) Plutonic and Volcanic Igneous Rocks

Plutonic igneous rocks

- Form when magma cools and solidifies deep beneath the Earth's surface.
- Cool slowly.
- Have coarse-grained textures with large visible crystals.

Volcanic igneous rocks

- Form when lava erupts onto the Earth's surface and cools.
- Cool rapidly.
- Have fine-grained, glassy or aphanitic textures with very small crystals.

(b) Metamorphic equivalents

Original Rock	Metamorphic Rock
(i) Limestone	**Marble**
(ii) Clay/Shale	**Slate**
(iii) Granite	**Gneiss**

11. (a) Features formed by global folding

- Fold mountain ranges such as the Himalayas, Andes, Alps and Rockies.
- Intermontane plateaus.
- Structural basins.

(b) Formation of an Overthrust Fold (Nappe)

- Horizontal compressional forces act on crustal rock layers.
- Continued pressure causes an asymmetrical fold to develop into an overfold.
- One limb is pushed over the other.
- Extreme compression exceeds the elasticity of the rocks, producing a rupture called a **thrust plane**.
- The upper limb breaks and is pushed/slides horizontally over the lower limb.
- This produces an **overthrust fold or nappe**.

12. (a)

(i) Convert map scale 1:50,000 to statement scale

$$1 \text{ cm} = 50{,}000 \text{ cm}$$

$$50{,}000 \text{ cm} = 500 \text{ m} = 0.5 \text{ km}$$

Therefore:

1 cm represents 0.5 km

(ii) Actual ground distance

Map distance = **14.6 cm**

$$14.6 \times 0.5 = 7.3 \text{ km}$$

$$\boxed{7.3 \text{ km}}$$

(b) (i) Gradient calculation

Vertical Interval:

$$1500 - 1200 = 300 \text{ m}$$

Horizontal Equivalent:

$$6 \text{ km} = 6000 \text{ m}$$

Therefore:

$$\text{Gradient} = \frac{300}{6000}$$

$$= \frac{1}{20}$$

$$\boxed{1:20}$$

(ii) Relief feature

Any one:

- **Steep slope**
- **Gorge**
- **V-shaped valley wall**

(c) (i) Pie Chart Central Angles

Geothermal:

$$\frac{45}{100} \times 360^\circ = \boxed{162^\circ}$$

Hydroelectric:

$$\frac{35}{100} \times 360^\circ = \boxed{126^\circ}$$

Wind and Solar:

$$\frac{15}{100} \times 360^\circ = \boxed{54^\circ}$$

Thermal:

$$\frac{5}{100} \times 360^\circ = \boxed{18^\circ}$$

(ii) Rules for constructing a divided rectangle

- The total length/width of the rectangle should represent **100%** or the grand total.

- The subdivisions should be drawn accurately according to the values represented.
- Components should be arranged in a consistent order, such as largest to smallest or chronological order.
- Each section should be clearly labelled.

(d) Factors influencing settlement distribution on maps

Relief/Topography

- Flat or gently sloping land encourages dense settlement.
- Steep slopes tend to have sparse settlement.

Drainage/Water supply

- Settlements tend to concentrate near rivers, lakes and springs because of the availability of water.

Transport infrastructure

- Linear settlements often develop along major roads and railway lines because of ease of accessibility.

(e) Steps in constructing a topographic cross-section

1. Draw a straight line joining the two required points/grid references on the map.
2. Place a strip of paper along the line.
3. Mark every point where a contour intersects the line and record its elevation.
4. Transfer the marked strip onto the horizontal axis of graph paper.
5. Draw vertical lines at the marked positions using the selected vertical scale.
6. Plot the corresponding heights.
7. Join the plotted points smoothly to form the cross-section.

13. (a)

(i) Intrusive and Extrusive Landforms

Intrusive landforms

- Form when magma cools and solidifies beneath the Earth's surface.
- Examples include **sills, dykes and batholiths**.

Extrusive landforms

- Form when lava erupts onto the Earth's surface and solidifies.
- Examples include **volcanoes and lava plateaus**.

(ii) Characteristics of basic/basaltic lava

- Has low silica content.
- Has low viscosity and is highly fluid.
- Has a high melting temperature.
- Flows rapidly over long distances.
- Forms gently sloping volcanic landforms.

(b) Dredging process for Soda Ash at Lake Magadi

- A floating excavator or dredger cuts and digs the solid **trona** crust from the lake bed.
- The crushed trona is mixed with lake liquor to form a slurry.
- The slurry is pumped through pipes to the processing factory on the shore.
- It is washed, centrifuged and calcined to produce soda ash.
- The soda ash is then packaged.

(c) Environmental degradation caused by open-cast mining

- Destruction of natural vegetation and wildlife habitats.
- Land degradation through the creation of deep and unsafe open pits.
- Soil erosion.
- Dust pollution.
- Contamination of water bodies through silt and chemicals.

14. (a)

(i) Large-scale commercial plantation farming

This is the cultivation of a single cash crop on large tracts of land or estates using substantial capital, specialised machinery and organised labour, mainly for commercial purposes and export or processing.

(ii) Physical requirements for tea

- High and well-distributed annual rainfall of about **1,200–2,000 mm**.
- Cool to warm temperatures of about **15°C–25°C**.
- Deep, well-drained and acidic volcanic soils.
- Suitable soil pH of approximately **4.5–5.6**.

(b) Government support for sugarcane farmers

- Provision of subsidised farm inputs such as fertilisers.
- Provision of high-yielding sugarcane varieties.
- Development of feeder roads and other infrastructure.
- Provision of agricultural extension services.
- Provision of credit and financial support through relevant agricultural institutions.

(c) (i) Raw-material-oriented and Market-oriented industries

Raw-material-oriented industries

- Locate near sources of raw materials.
- This reduces transportation costs, especially for bulky or perishable raw materials.

Market-oriented industries

- Locate near consumer centres.
- This is suitable where finished products are fragile, perishable or expensive to transport.

(ii) Examples of cottage industries in Kenya

- Wood carving.

- Basketry and weaving/kiondo making.
- Pottery.
- Blacksmithing/Jua Kali metal fabrication.

15. (a)

(i) Geothermal Energy

Geothermal energy is heat energy generated and stored beneath the Earth's crust and obtained in the form of steam or hot water.

(ii) Advantages of geothermal energy over hydroelectric power

- Provides reliable electricity throughout the year and is less affected by drought or rainfall fluctuations.
- Requires a relatively smaller land area than large hydroelectric reservoirs.
- Has relatively low operating costs in the long term.
- Produces low greenhouse gas emissions.

(b) Electricity generation at Olkaria Geothermal Station

- Deep wells are drilled into hot underground aquifers.
- High-pressure steam is brought to the surface through the wells.
- The steam passes through separators to remove moisture.
- Dry, high-pressure steam is directed onto turbines.
- The turbines rotate generators, producing electricity.

(c) Factors favouring Japan as an industrial giant

- Availability of a highly skilled, disciplined and technologically advanced workforce.
- Availability of reliable sources of power.
- Well-developed transport and communication systems.
- Presence of deep-water natural harbours.
- Efficient sea transport for importing raw materials and exporting manufactured goods.
- Advanced technology and industrial infrastructure.

16. (a) Pie Chart Construction

Total production:

$$26 + 14 + 32 + 28 = 100 \text{ (000 tonnes)}$$

Calculated angles

Gold:

$$\frac{26}{100} \times 360^\circ = \boxed{93.6^\circ}$$

Fluorspar:

$$\frac{14}{100} \times 360^\circ = \boxed{50.4^\circ}$$

Soda ash:

$$\frac{32}{100} \times 360^\circ = \boxed{115.2^\circ}$$

Zinc:

$$\frac{28}{100} \times 360^\circ = \boxed{100.8^\circ}$$

Marking points for the drawing

- Draw a circle of approximately **5 cm radius**.
- Plot the calculated sector angles accurately using a protractor.
- Label all sectors clearly.
- Provide a complete key/legend.
- Give the pie chart an appropriate title.

(b) Advantages of a Pie Chart

- Gives an immediate visual summary of proportional relationships.
- Makes it easy to compare the relative sizes of components.
- Simple to interpret.
- Provides an attractive visual presentation of data.

17. (a) Physical factors favouring agriculture

- Fertile volcanic soils provide essential nutrients for high crop yields.
- Adequate and reliable rainfall supports crop growth.
- Suitable temperatures encourage crop development.

(b) Economic benefits of mining

- Creates employment opportunities.
- Raises the incomes and living standards of people.
- Generates government revenue through taxes and royalties.
- Provides funds for infrastructure development.

(c) Environmental problem of mining

- Destruction of ecosystems and natural vegetation.
- Soil erosion.
- Creation of open pits and degraded land.
- Pollution of land and water.

(d) Renewable energy sources

Any two:

- **Geothermal energy**

- **Hydroelectric power**
- **Solar energy**
- **Wind energy**
- **Biomass energy**

(e) Advantage of renewable energy

- It is environmentally friendly and produces relatively little pollution.
- It is continuously replenished by natural processes.

(f) Factors influencing industrial location

- Proximity to raw materials and minerals to minimise transportation costs.
- Availability of reliable power supply, such as geothermal or hydroelectric power.
- Availability of adequate water for cooling and industrial processing.
- Availability of labour.
- Good transport and communication networks.

FRENCH

MARKING SCHEME

Section A (15 Marks)

1. **Comprehension Questions**
   - ✓ a) Sechzehn (16) Jahre alt. [1m]
   - ✓ b) In Nakuru, Kenya. [1m]
   - ✓ c) Isst: Brot mit Marmelade [1m]; Trinkt: Milch [1m].
   - ✓ d) Mit dem Bus. [1m]
   - ✓ e) Deutsch, Biologie, Mathematik. [3m]
   - ✓ f) Weil er/sie in den Ferien nach Berlin reisen möchte. [1m]
   - ✓ g) Er/Sie hilft den Eltern im Garten. [1m]
2. **Richtig oder Falsch**
   - ✓ a) F
   - ✓ b) F
   - ✓ c) F
   - ✓ d) R

- ✓ e) R

Section B (25 Marks)

3. **Verbs:** a) liest b) fahren c) Hast d) lernen e) legt
4. **Odd Word Out:** a) Lehrer b) Hund c) September d) Stuhl e) Milch
5. **Articles:** a) eine b) Der c) ein d) das e) einen (or ein)
6. **Sentence Structure:**
   - ✓ a) Peter spielt nachmittags Fußball. / Nachmittags spielt Peter Fußball.
   - ✓ b) Woher kommst du?
   - ✓ c) Ich stehe um 6 Uhr auf. / Um 6 Uhr stehe ich auf.
   - ✓ d) Wir lernen gerne Deutsch.
   - ✓ e) Ich habe keinen Bleistift.
7. **Pronouns:** a) sein b) Sie c) unser d) dein e) ihn

Section C (20 Marks)

- **Question 8 & 9 Rubric:**
  - ✓ Content & Relevance to prompts: 4 Marks
  - ✓ Language Accuracy (Grammar, Tense, Articles): 3 Marks
  - ✓ Vocabulary & Sentence Variety: 2 Marks
  - ✓ Format/Layout (Email greeting/closing): 1 Mark

Below is a summary of the complete answer scheme and marking rubric for the Grade 10 German examination.

SUMMARY OF MARKS BY SECTION

Section	Target Skill	Total Marks	Key Criteria
Section A	Reading Comprehension	**15 Marks**	Text analysis, factual retrieval, True/False evaluation
Section B	Grammar & Vocabulary	**25 Marks**	Verb conjugations, word categories, cases/articles, syntax, pronouns
Section C	Written Expression	**20 Marks**	Guided composition, functional email response, vocabulary usage
TOTAL		**60 Marks**	**Pass Mark: 40% (24 Marks)**

SECTION A: COMPREHENSION (15 MARKS)

1. **Question 1 (10 Marks):**
   - ✓ **a)** 16 / sechzehn Jahre alt *(1 mark)*
   - ✓ **b)** In Nakuru, Kenia *(1 mark)*
   - ✓ **c)** Isst Brot mit Marmelade *(1 mark)*, trinkt Milch *(1 mark) (2 marks total)*
   - ✓ **d)** Mit dem Bus *(1 mark)*
   - ✓ **e)** Deutsch, Biologie, Mathematik *(3 marks total — 1 mark each)*

- ✓ **f)** Möchte in den Ferien nach Berlin reisen *(1 mark)*
- ✓ **g)** Hilft den Eltern im Garten *(1 mark)*

2. **Question 2 (5 Marks):**
   - ✓ **a)** Falsch (F) — *Wakes up at 6:00 AM*
   - ✓ **b)** Falsch (F) — *Travels by bus*
   - ✓ **c)** Falsch (F) — *History is not mentioned as favorite*
   - ✓ **d)** Richtig (R)
   - ✓ **e)** Richtig (R)

SECTION B: GRAMMAR & VOCABULARY (25 MARKS)

- **Q3: Verb Forms (5 Marks):**

  a) **liest** | b) **fahren** | c) **Hast** | d) **lernen** | e) **legt**

- **Q4: Odd Word Out (5 Marks):**

  a) **Lehrer** *(Profession vs. Family)*

  b) **Hund** *(Animal vs. Stationery)*

  c) **September** *(Month vs. Weekdays)*

  d) **Stuhl** *(Noun vs. Verbs)*

  e) **Milch** *(Drink vs. Colors)*

- **Q5: Articles (5 Marks):**

  a) **eine** | b) **Der** | c) **ein** | d) **das** | e) **einen**

- **Q6: Sentence Reconstruction (5 Marks):**

  a) **Peter spielt nachmittags Fußball.** *(or: Nachmittags spielt Peter Fußball.)*

  b) **Woher kommst du?**

  c) **Ich stehe um 6 Uhr auf.** *(or: Um 6 Uhr stehe ich auf.)*

  d) **Wir lernen gerne Deutsch.**

  e) **Ich habe keinen Bleistift.**

- **Q7: Pronouns (5 Marks):**

  a) **sein** | b) **Sie** | c) **unser** | d) **dein** | e) **ihn**

SECTION C: WRITING RUBRIC (20 MARKS)

HISTORY AND CITIZENSHIP

MARKING SCHEME

1.

a) History is the study of past events and human activities based on evidence. **(1 mark)**

b) Any one:

- Oral traditions
- Written records
- Archaeological sources
- Museums
- Artefacts
- Photographs
- Audio-visual records **(1 mark)**

c) Any one:

- Helps learners understand the past.
- Promotes national identity.
- Helps learners appreciate cultural diversity.
- Provides lessons for solving present-day problems.
- Promotes responsible citizenship. **(1 mark)**

2.

a) Any one:

- Bantu
- Nilotes
- Cushites
- Semitic groups **(1 mark)**

b) Any one:

- Search for pasture and water.
- Population pressure.
- Search for fertile land.
- Drought and famine.
- Conflicts.
- Search for trade opportunities. **(1 mark)**

c) Any one:

- Led to inter-community trade.
- Promoted intermarriage.
- Resulted in cultural exchange.
- Led to conflicts over resources.
- Increased competition for land and resources. **(1 mark)**

3.

a) Any one:

- Search for raw materials.
- Search for markets.
- Search for areas for investment.
- Strategic interests.
- Missionary activities.
- National prestige and competition among European powers. **(1 mark)**

b) Any one:

- Military force.
- Treaties.
- Collaboration.
- Divide-and-rule.
- Use of missionaries.
- Establishment of administrative centres. **(1 mark)**

c) Any one:

- Use of provincial and district administration.
- Indirect rule.
- Use of African chiefs and headmen.
- Centralised colonial authority.
- Introduction of colonial laws and taxation. **(1 mark)**

4.

a) Public participation is the involvement of citizens in decision-making processes that affect their lives and society. **(1 mark)**

b) Any one:

- Allows citizens to express their views.
- Promotes accountability.
- Promotes transparency.
- Enables citizens to influence government decisions. **(1 mark)**

c) Any one:

- Lack of civic awareness.
- Corruption.
- Political interference.
- Poor access to information.
- Inadequate resources.
- Public apathy. **(1 mark)**

5.

a) Republican status refers to a system in which a country is governed as a republic rather than as a colony or monarchy. **(1 mark)**

b) Any one:

- Reintroduced multi-party democracy.
- Allowed formation of opposition political parties.
- Increased political competition.
- Promoted political pluralism. **(1 mark)**

c) Any one:

- Protects citizens' rights and freedoms.
- Promotes democracy.
- Defines the structure of government.
- Promotes separation of powers.
- Provides for devolution.
- Promotes accountability and good governance. **(1 mark)**

6.

a) Independent Electoral and Boundaries Commission (**IEBC**). **(1 mark)**

b) Any one:

- Vote buying.
- Ballot stuffing.
- Voter bribery.
- Intimidation.
- Multiple voting.
- Electoral violence.
- Manipulation of election results. **(1 mark)**

c) Any one:

- National unity.
- Inter-community interaction.
- Equal distribution of resources.
- Promotion of national values.
- Sports and cultural activities.
- Respect for diversity. **(1 mark)**

7.

a) Any one:

- Development of agriculture.
- Domestication of animals.
- Availability of water.
- Favourable climate.
- Development of permanent settlements.
- Population growth. **(1 mark)**

b) Any one:

- Agriculture.
- Domestication of animals.
- Pottery making.
- Weaving.
- Polished stone tools.
- Permanent settlement. **(1 mark)**

c) Any one:

- Aksum Empire.
- Wanga Kingdom.
- Kingdom of Rwanda.
- Ancient Egypt.
- Ghana Empire.
- Mali Empire.
- Songhai Empire. **(1 mark)**

8.

a) Any one:

- European powers established rules for claiming territories in Africa.

- European powers agreed on principles governing the occupation of African territories.
- The principle of effective occupation was introduced. **(1 mark)**

b) Any one:

- Julius Nyerere.
- Kwame Nkrumah.
- Jomo Kenyatta.
- Thomas Sankara.
- Patrice Lumumba.
- Nelson Mandela.
- Ahmed Ben Bella. **(1 mark)**

c) Any one:

- Promote unity.
- Promote self-reliance.
- Protect national resources.
- Promote good leadership.
- Fight corruption.
- Promote patriotism.
- Respect human rights. **(1 mark)**

9.

a) Any one:

- Formation of rival alliances.
- Militarism.
- Imperialism.
- Nationalism.
- Assassination of Archduke Franz Ferdinand. **(1 mark)**

b) Any one:

- Loss of African lives.
- Economic disruption.
- Growth of African nationalism.
- Destruction of infrastructure.
- Increased taxation.
- Forced recruitment of Africans. **(1 mark)**

c) Any one:

- Peacekeeping missions.
- Mediation.
- Dialogue and negotiations.
- Peace agreements.
- Disarmament programmes.
- Conflict resolution. **(1 mark)**

10.

a) Any one:

- Taxation without representation.
- British control over the colonies.
- Influence of Enlightenment ideas.
- Restrictions on colonial trade.
- Boston Tea Party.
- Desire for self-government. **(1 mark)**

b) Any one:

- Forced labour.
- Human trafficking.
- Child labour.
- Debt bondage.
- Forced marriage.
- Domestic servitude. **(1 mark)**

c) Any one:

- Equal treatment of all people.
- Respect for human rights.
- Equal access to education.
- Equal opportunities.
- Fair distribution of resources.
- Enforcement of anti-discrimination laws. **(1 mark)**

11.

a) Explain two ways in which different branches of History influence contemporary Kenyan society. (4 marks)

Award **2 marks for each well-explained point**.

1. **Political history** – helps citizens understand the development of Kenya's government and constitutional system, promoting informed political participation. **(2 marks)**
2. **Economic history** – helps society understand the development of economic activities and use past experiences to address current economic challenges. **(2 marks)**

Other acceptable branches include:

- Social history
- Cultural history
- Environmental history
- Diplomatic history

b) Explain three causes of migration of linguistic groups into Kenya. (6 marks)

Award **2 marks for each well-explained point**.

1. **Search for pasture and water** – pastoral communities moved in search of adequate grazing land and water for their livestock. **(2 marks)**
2. **Search for fertile land** – communities migrated to areas suitable for cultivation and settlement. **(2 marks)**
3. **Drought and famine** – shortage of food and water forced communities to move to areas with better conditions. **(2 marks)**

Other acceptable answers:

- Population pressure
- Epidemics
- Conflicts
- Search for trade opportunities
- Natural disasters
- Need for security

12.

a) Explain three reasons for the establishment of colonial rule in Kenya. (6 marks)

Award **2 marks for each well-explained point**.

1. **Search for raw materials** – European industries required raw materials for manufacturing. **(2 marks)**
2. **Search for markets** – Europeans wanted markets where they could sell manufactured goods. **(2 marks)**
3. **Strategic interests** – European powers wanted to control important routes and strategic areas. **(2 marks)**

Other acceptable answers:

- Christian missionary activities
- European nationalism
- Investment opportunities
- Prestige and competition
- Need for settlement areas

b) Explain two ways in which the colonial system of administration influenced the development of the modern Kenyan government. (4 marks)

1. **Administrative structures** – colonial provincial and district administration influenced the organisation of modern government administration. **(2 marks)**
2. **Centralised government** – colonial rule established centralised systems of decision-making that influenced post-independence government structures. **(2 marks)**

Other acceptable answers:

- Use of administrative officers.
- Development of legal systems.
- Introduction of taxation.
- Development of local administration.

13.

a) Explain three roles of the IEBC in Kenya's electoral process. (6 marks)

Award **2 marks for each well-explained role**.

1. **Conducting elections** – organises and manages elections at national and county levels. **(2 marks)**
2. **Voter registration** – registers eligible citizens as voters and maintains the voters' register. **(2 marks)**
3. **Electoral boundary review** – reviews constituency and ward boundaries as provided for by law. **(2 marks)**

Other acceptable answers:

- Educating voters.
- Regulating political party nominations where applicable.
- Registering candidates.
- Ensuring compliance with electoral laws.
- Announcing and declaring election results as provided by law.

b) Explain two ways of promoting effective public participation in Kenya. (4 marks)

1. **Civic education** – educating citizens enables them to understand their rights, responsibilities and opportunities to participate in governance. **(2 marks)**
2. **Access to information** – providing citizens with timely and accurate information enables them to make informed contributions to public decisions. **(2 marks)**

Other acceptable answers:

- Use of public forums.
- Digital platforms.
- Inclusive consultation.
- Protection of freedom of expression.
- Involvement of marginalised groups.

14.

a) Explain three factors that contributed to the development of early African civilisations. (6 marks)

Award **2 marks for each well-explained factor**.

1. **Availability of water** – rivers and other water sources supported agriculture, settlement and domestic activities. **(2 marks)**
2. **Agriculture** – reliable food production supported permanent settlement and population growth. **(2 marks)**
3. **Trade** – exchange of goods generated wealth and encouraged the growth of towns and political centres. **(2 marks)**

Other acceptable answers:

- Availability of minerals.
- Fertile soils.
- Strong leadership.
- Skilled labour.
- Development of technology.
- Strategic geographical location.

b) Explain two contributions of ancient African civilisations to modern society. (4 marks)

1. **Architecture and engineering** – ancient Africans developed impressive buildings, monuments and engineering techniques that demonstrate advanced knowledge. **(2 marks)**
2. **Writing and scholarship** – civilisations such as Aksum developed systems of writing and centres of learning that contributed to the preservation and transmission of knowledge. **(2 marks)**

Other acceptable answers:

- Trade systems.
- Metalworking.
- Agriculture.

- Governance systems.
- Medicine.
- Mathematics.
- Art and culture.

15.

a) Explain three factors that contributed to the First Industrial Revolution in Britain. (6 marks)

Award **2 marks for each well-explained point**.

1. **Availability of coal and iron** – Britain had abundant coal and iron resources needed for machines, factories and transport. **(2 marks)**
2. **Agricultural Revolution** – improved farming methods increased food production, population and labour availability for industries. **(2 marks)**
3. **Availability of capital** – profits from trade and commerce provided money for investment in industries and machines. **(2 marks)**

Other acceptable answers:

- Availability of labour.
- Good transport networks.
- Scientific and technological developments.
- Growing markets.
- Political stability.
- Colonial resources and markets.

b) Explain two ways in which the United Nations and African Union promote peace and global stability. (4 marks)

1. **Peacekeeping and conflict resolution** – the organisations deploy peacekeeping missions and support negotiations to resolve conflicts peacefully. **(2 marks)**
2. **Promotion of cooperation** – they encourage member states to cooperate in addressing security, humanitarian and development challenges. **(2 marks)**

Other acceptable answers:

- Mediation.
- Humanitarian assistance.
- Election observation.
- Sanctions against parties threatening peace.
- Promotion of human rights.
- Support for regional integration.

GRADE 10

HOME SCIENCE

MARKING SCHEME

SECTION A:

1.

a) Two areas of study covered under Home Science:
Any two:

- Foods and Nutrition.
- Home Management.
- Clothing and Textiles.

2 × 1 = 2 marks

b) Two ways Home Science improves family life:

- Promotes proper nutrition and healthy living.
- Enables efficient management of family resources.
- Promotes proper hygiene and sanitation.
- Develops skills in clothing construction and care.
- Promotes safety in the home.
- Helps families make informed consumer decisions.

Any 2 × 1 = 2 marks

c) One entrepreneurial opportunity:

- Catering business.
- Tailoring/dressmaking.
- Baking business.
- Laundry service.
- Food processing.
- Interior decoration.

1 × 1 = 1 mark

2.

a) Identify the three work centres.

S – Cleaning/washing centre — 1 mark
W – Preparation/work centre — 1 mark
C – Cooking centre — 1 mark

Total: 3 marks

b) Two reasons for convenient arrangement of work centres:

- Reduces unnecessary movement.
- Saves time and energy.
- Promotes efficient workflow.
- Reduces accidents.
- Makes kitchen work easier and more enjoyable.

Any 2 × 1 = 2 marks

3.

a) Two unhygienic practices:

- Carrying raw meat and vegetables together in an uncovered container.
- Placing food on the kitchen floor.

2 × 1 = 2 marks

b) One health risk:

Poor food hygiene may lead to **food contamination and food-borne diseases**, such as diarrhoea, vomiting or food poisoning.

1 mark

c) Two appropriate ways of storing food safely:

- Keep perishable foods such as meat in a refrigerator/freezer.
- Keep food covered in clean containers.
- Store food away from chemicals and other contaminants.
- Keep dry foods in clean, dry and well-ventilated storage areas.
- Separate raw foods from ready-to-eat foods.

Any 2 × 1 = 2 marks

4.

a) Functions of nutrients

i. Fats and oils:
Provide a concentrated source of energy and help in the absorption of fat-soluble vitamins.
(1 mark)

ii. Vitamins:
Regulate body processes and help maintain good health.
(1 mark)

iii. Minerals:
Help in body processes and the formation and maintenance of body structures such as bones and teeth.
(1 mark)

b) Two foods rich in vitamins and minerals:

- Fruits such as oranges, mangoes and bananas.

- Green leafy vegetables such as sukuma wiki and spinach.
- Milk.
- Fish.
- Liver.
- Eggs.

Any 2 × 1 = 2 marks

5.

a) Meaning of personal hygiene:

Personal hygiene is the **practice of keeping one's body clean and maintaining habits that promote health and prevent disease**.

1 mark

b) Three changes during puberty:

Any three:

- Growth of pubic and underarm hair.
- Development of breasts in girls.
- Deepening of the voice in boys.
- Enlargement of the reproductive organs.
- Increased sweating/body odour.
- Appearance of acne.
- Rapid increase in height and body size.
- Onset of menstruation in girls.
- Production of sperm/ejaculation in boys.
- Development of broader hips in girls and broader shoulders in boys.

Any 3 × 1 = 3 marks

c) Importance of personal hygiene during puberty:

It helps **control body odour, prevent infections and promote self-confidence and wellbeing**.

1 mark

6.

a) Two directions of threads:

Warp threads — threads running lengthwise along the fabric.
Weft threads — threads running across the width of the fabric.

2 × 1 = 2 marks

b) Two characteristics of a well-constructed seam:

- Stitches should be even and regular.
- The seam should be strong and secure.

- Seam allowance should be even.
- There should be no puckering.
- Raw edges should be appropriately finished.
- The seam should lie flat.

Any 2 × 1 = 2 marks

c) One measuring tool:

- Tape measure.
- Ruler.
- Metre rule.

1 mark

SECTION B: 50 MARKS

7.

a) Meaning of food preparation — 2 marks

Food preparation is the process of **selecting, cleaning, trimming, cutting, combining and otherwise preparing food ingredients before or during cooking**.

2 marks

b) Four principles when preparing vegetables — 4 marks

Any four:

- Wash vegetables thoroughly before cutting where appropriate.
- Use clean utensils and equipment.
- Avoid unnecessary peeling to minimise nutrient loss.
- Cut vegetables into suitable and uniform sizes.
- Avoid prolonged soaking after cutting.
- Prepare vegetables shortly before cooking.
- Avoid excessive cutting or chopping.
- Use appropriate cooking methods to preserve nutrients.
- Avoid overcooking.

Any 4 × 1 = 4 marks

c) Two advantages of steaming vegetables — 2 marks

- Helps retain more water-soluble nutrients than some prolonged cooking methods.
- Helps retain the natural colour, flavour and texture of vegetables.
- Does not require vegetables to be immersed in water.
- Can reduce nutrient loss into cooking water.

Any 2 × 1 = 2 marks

d) Two precautions when grilling meat — 2 marks

- Ensure the meat is cooked thoroughly to a safe internal temperature.
- Keep raw and cooked meat separate to prevent cross-contamination.
- Use clean utensils.
- Avoid excessive charring/burning.
- Use appropriate heat and turn the meat as necessary.
- Handle hot grills carefully to prevent burns.

Any 2 × 1 = 2 marks

8.

a) Classification of foods according to major nutrients — 4 marks

Possible answers:

Food	Main nutrient provided
Maize meal	Carbohydrates
Beans	Protein
Sukuma wiki	Vitamins and minerals
Milk	Protein, minerals and fat
Bananas	Carbohydrates, vitamins and minerals
Cooking oil	Fats and oils
Oranges	Vitamins and minerals

Any 4 correct classifications × 1 = 4 marks

b) Balanced main meal — 2 marks

One acceptable meal:

Ugali/maize meal + beans + sukuma wiki + orange/banana + milk.

Award marks for a meal containing a suitable combination of:

- Energy-giving food.
- Body-building/protein food.
- Protective foods such as vegetables/fruits.

2 marks

c) Two factors influencing nutritional needs — 2 marks

Any two:

- Age.
- Sex.
- Level of physical activity.
- Physiological state such as pregnancy or lactation.
- Health status.
- Body size.
- Growth requirements.

Any 2 × 1 = 2 marks

d) Two advantages of variety in meals — 2 marks

- Provides a wider range of nutrients.
- Prevents monotony and makes meals more appealing.
- Provides different tastes, colours and textures.
- Helps meet different nutritional requirements.

Any 2 × 1 = 2 marks

9.

a) Define family budget — 2 marks

A family budget is a **planned estimate of the family's expected income and expenditure over a specified period**.

2 marks

b) Four advantages of preparing a family budget — 4 marks

Any four:

- Helps control expenditure.
- Ensures available income is allocated according to priorities.
- Helps prevent unnecessary spending.
- Enables the family to save.
- Helps meet future financial needs.
- Prevents or reduces unnecessary borrowing.
- Helps the family monitor its financial position.
- Facilitates planning for emergencies.

Any 4 × 1 = 4 marks

c) Two factors considered when making purchasing decisions — 2 marks

Any two, with appropriate explanation:

- **Price:** The consumer should compare the price with the available budget.
- **Quality:** The product should be durable and fit for its intended purpose.
- **Needs:** Priority should be given to essential goods.
- **Safety:** The product should be safe to use.
- **Quantity:** The amount purchased should correspond to the family's needs.
- **Availability:** The product should be readily obtainable.
- **Consumer information:** Labels, expiry dates and instructions should be checked.

Any 2 × 1 = 2 marks

d) Two qualities of a wise consumer — 2 marks

- Makes informed decisions.
- Compares prices and quality.
- Plans purchases.
- Avoids impulse buying.
- Checks labels and product information.
- Considers value for money.
- Keeps within a budget.

Any 2 × 1 = 2 marks

10.

a) Why cleaning proceeds from high surfaces to low surfaces — 2 marks

Dust and dirt falling from higher surfaces can land on lower surfaces. Cleaning **from high to low prevents already-cleaned surfaces from becoming dirty again**.

2 marks

b) Three precautions when using household cleaning agents — 3 marks

Any three:

- Read and follow instructions on the label.
- Keep cleaning agents away from children.
- Do not mix different cleaning chemicals unless specifically directed.
- Store chemicals in their original, labelled containers.
- Use protective equipment such as gloves where appropriate.
- Ensure adequate ventilation.
- Avoid contact with eyes and skin.
- Wash hands after handling cleaning agents.

Any 3 × 1 = 3 marks

c) Three precautions when laundering woollen garments — 3 marks

- Use mild detergent suitable for wool.
- Avoid excessive rubbing or scrubbing.
- Avoid very hot water.
- Avoid sudden temperature changes.
- Handle gently to prevent felting.
- Avoid wringing or twisting.
- Reshape the garment while damp.
- Dry flat where appropriate.
- Follow the garment care label.

Any 3 × 1 = 3 marks

d) Two ways of preventing electrical accidents — 2 marks

- Do not handle electrical appliances with wet hands.
- Keep electrical appliances away from water.
- Replace damaged electrical cords.
- Avoid overloading sockets.
- Switch off and unplug appliances when not in use.
- Keep electrical appliances away from young children.
- Ensure appliances are properly maintained.

Any 2 × 1 = 2 marks

11.

a) Identify the garment parts

i. Opening around the neck:
Neckline. (1 mark)

ii. Curved opening where the arm passes through:
Armhole. (1 mark)

iii. Finished lower edge:
Hem. (1 mark)

b) Two purposes of pressing during garment construction — 2 marks

- Removes wrinkles and creases.
- Helps seams lie flat.
- Gives the garment a neat and professional appearance.
- Helps shape garment sections.
- Makes construction easier and improves the final fit.

Any 2 × 1 = 2 marks

c) Distinguish between natural and manufactured fibres — 2 marks

Natural fibres:
Fibres obtained from **natural sources such as plants or animals**.
(1 mark)

Manufactured fibres:
Fibres produced through **chemical or industrial processes**, usually from polymers or regenerated natural materials.
(1 mark)

d) Three examples of natural textile fibres — 3 marks

Any three:

- Cotton.
- Linen.
- Wool.
- Silk.
- Jute.
- Flax.
- Sisal.

Any 3 × 1 = 3 marks

GRADE 10 HINDU RELIGIOUS EDUCATION

MARKING SCHEME / ANSWERS

SECTION A: 30 MARKS

QUESTION 1: MANIFESTATIONS OF PARAMATMA

(6 marks)

a) What is meant by Paramatma?
(1 mark)

- Paramatma is the **Supreme/Universal Soul or divine reality present in all creation**. **(1)**

b) Name the three manifestations shown in the diagram.
(3 marks)

i. **Brahma** – associated with creation. **(1)**
ii. **Vishnu** – associated with preservation/sustenance. **(1)**
iii. **Shiva** – associated with destruction/transformation. **(1)**

c) State two reasons why Vishnu is regarded as the preserver of creation.
(2 marks)

Any two:

- Vishnu sustains and protects creation. **(1)**
- He preserves cosmic order.
- He protects Dharma/righteousness.
- He restores balance when Dharma declines.
- He manifests through avatars to protect beings and restore righteousness.

QUESTION 2: DASHAVATARS

(6 marks)

a) Identify the two avatars represented by the blank spaces.
(2 marks)

i. **Rama**. **(1)**
ii. **Krishna**. **(1)**

b) State two reasons why avatars are important in Hindu religious understanding.
(2 marks)

Any two:

- They demonstrate the divine intervention in the world. **(1)**
- They help restore Dharma/righteousness. **(1)**
- They protect people/creation from evil.
- They provide moral and spiritual guidance.
- They demonstrate divine compassion.
- They help restore balance between good and evil.

c) State two values demonstrated by Lord Rama.
(2 marks)

Any two:

- Truthfulness. **(1)**
- Obedience to duty/Dharma. **(1)**
- Respect for parents and elders.
- Loyalty.
- Courage.
- Self-discipline.
- Responsibility.
- Sacrifice.
- Compassion.

QUESTION 3: THE FOUR PANTHS

(6 marks)

a) Complete the table.
(4 marks)

Tradition	Acceptable teaching/emphasis
Sanatan/Vedic	Dharma, duty, truthfulness, righteousness, devotion to God or respect for life. **(1)**
Jain	Ahimsa/non-violence, truth, non-stealing, non-possessiveness or self-discipline. **(1)**
Buddhist	Compassion, non-violence, Middle Path, Noble Eightfold Path or right conduct. **(1)**
Sikh	Equality, honest living, service, sharing, remembrance of God or rejection of ego. **(1)**

b) State two ways studying the four Panths can promote religious tolerance in Kenya.
(2 marks)

Any two:

- Helps learners understand and respect different religious beliefs. **(1)**
- Reduces religious prejudice and stereotypes. **(1)**
- Promotes peaceful coexistence.
- Encourages appreciation of diversity.
- Helps learners identify shared moral values.
- Promotes interfaith dialogue.

- Develops empathy towards people of different faiths.

QUESTION 4: HINDU SCRIPTURES

(6 marks)

a) Explain the meaning of Shruti.
(1 mark)

- Shruti means **"that which is heard"** and refers to sacred knowledge regarded as revealed to sages/seers. **(1)**

b) Explain the meaning of Smriti.
(1 mark)

- Smriti means **"that which is remembered"** and refers to sacred/traditional literature transmitted through human tradition and memory. **(1)**

c) Name two Vedas.
(2 marks)

Any two:

- **Rig Veda**. **(1)**
- **Sama Veda**. **(1)**
- **Yajur Veda**. **(1)**
- **Atharva Veda**. **(1)**

d) Name two Hindu epics associated with Smriti literature.
(2 marks)

- **Ramayana**. **(1)**
- **Mahabharata**. **(1)**

QUESTION 5: DHARMA IN DAILY LIFE

(6 marks)

a) Identify one principle of Dharma demonstrated by the learner.
(1 mark)

- **Truthfulness/honesty/righteousness. (1)**

b) Explain how the learner's decision demonstrates righteous conduct.
(2 marks)

- The learner chooses to tell the truth despite pressure from other learners. **(1)**
- The learner acts justly and prevents an innocent person from being wrongly punished. **(1)**

c) State three ways a Grade 10 learner can practise Dharma at school.
(3 marks)

Any three:

- Being truthful. **(1)**
- Respecting teachers and other learners. **(1)**
- Avoiding cheating.
- Returning lost property.
- Protecting school property.
- Helping others.
- Avoiding bullying and violence.
- Fulfilling school responsibilities.
- Obeying legitimate school rules.
- Treating others fairly.

QUESTION 6: PARAMATMA AND THE TRIMURTI

(10 marks)

a) Explain the Hindu understanding of Paramatma.
(2 marks)

- Paramatma is understood as the **Supreme/Universal Soul or divine reality**. **(1)**
- It is understood as the divine presence underlying and pervading creation. **(1)**

b) Explain the relationship between Brahma, Vishnu and Shiva in the Trimurti.
(3 marks)

- **Brahma** represents creation. **(1)**
- **Vishnu** represents preservation/sustenance. **(1)**
- **Shiva** represents destruction/transformation and renewal. **(1)**

c) Explain two ways the concept of the Trimurti can help a learner understand creation and transformation.
(2 marks)

Any two:

- It shows that creation involves different processes. **(1)**
- It demonstrates that change and transformation are natural parts of existence. **(1)**
- It teaches that destruction can make way for renewal.
- It helps learners appreciate the interconnectedness of creation, preservation and transformation.
- It encourages learners to adapt positively to change.

d) State three lessons learners can derive from studying manifestations of Paramatma.
(3 marks)

Any three:

- Respect for religious beliefs and diversity. **(1)**
- Appreciation of the divine.
- Understanding the importance of Dharma.
- Responsibility towards creation.
- Acceptance of change and transformation.
- Development of moral behaviour.
- Promotion of tolerance.
- Understanding different dimensions of Hindu religious thought.

QUESTION 7: AVATARS AND MORAL VALUES

(10 marks)

a) What is an avatar in Hindu religious thought?
(2 marks)

- An avatar is a **manifestation or incarnation of a deity, particularly Vishnu, in the world**. **(1)**
- It is associated with restoring Dharma, protecting beings and overcoming evil. **(1)**

b) Explain three reasons for the appearance of avatars.
(3 marks)

Any three:

- To restore Dharma/righteousness. **(1)**
- To protect the righteous. **(1)**
- To overcome or destroy evil. **(1)**
- To restore cosmic balance.
- To guide humanity.
- To protect creation.

c) Explain two moral lessons from the life of Lord Rama.
(2 marks)

Any two well explained:

- **Truthfulness:** Rama demonstrates the importance of keeping one's word and upholding truth. **(1)**
- **Duty:** He demonstrates commitment to Dharma and responsibility even when it is difficult. **(1)**
- Respect for parents.
- Loyalty to family.
- Courage in confronting evil.
- Self-sacrifice.
- Compassion.

d) Explain three lessons from teachings associated with Lord Krishna.
(3 marks)

Any three:

- **Perform one's duty:** A person should fulfil their responsibilities sincerely. **(1)**
- **Selfless action:** One should avoid excessive attachment to the fruits/results of one's actions. **(1)**
- **Devotion:** Spiritual devotion and remembrance of God are important. **(1)**
- **Dharma:** One should uphold righteousness.
- **Self-control:** One should control desires and emotions.
- **Wisdom:** One should make decisions using knowledge and understanding.
- **Courage:** One should face difficult responsibilities courageously.

QUESTION 8: JAINISM, BUDDHISM AND SIKHISM

(10 marks)

a) Define Tirthankara.
(2 marks)

- A Tirthankara is an **enlightened spiritual teacher in Jainism**. **(1)**

- A Tirthankara shows the path towards spiritual liberation and helps others attain liberation. **(1)**

b) Name two Jain Tirthankaras.
(2 marks)

Any two:

- **Rishabhanatha/Adinatha**. **(1)**
- **Parshvanatha**. **(1)**
- **Mahavira/Vardhamana Mahavira**. **(1)**

c) Explain two principles of Jainism that encourage peaceful coexistence.
(2 marks)

Any two:

- **Ahimsa:** avoiding harm to living beings promotes peace and respect for life. **(1)**
- **Satya:** speaking the truth promotes trust and peaceful relationships. **(1)**
- **Aparigraha:** avoiding excessive attachment reduces greed and conflict. **(1)**
- **Asteya:** not stealing respects the rights and property of others. **(1)**
- **Self-discipline:** controlling harmful desires promotes peaceful conduct. **(1)**

d) State two Buddhist teachings that can help a learner deal with conflict.
(2 marks)

Any two:

- Compassion.
- Non-violence.
- Right speech.
- Right action.
- Right intention.
- The Middle Path.
- Patience.
- Forgiveness.
- Mindfulness.
- The Noble Eightfold Path.

e) Explain two Sikh values that can promote responsible citizenship.
(2 marks)

Any two:

- **Seva/service:** encourages people to serve others and their communities. **(1)**
- **Equality:** encourages fair treatment of all people. **(1)**
- **Honest living:** encourages people to earn and act honestly. **(1)**
- **Sharing:** encourages generosity and concern for others. **(1)**
- **Humility:** discourages selfishness and pride. **(1)**

QUESTION 9: SCRIPTURES AND DHARMA

(10 marks)

a) Identify the Hindu sacred texts represented in the diagram.
(1 mark)

- **Vedas**. **(1)**

b) What is meant by Dharma?
(2 marks)

- Dharma refers to **righteous conduct, duty and moral responsibility**. **(1)**
- It guides a person to live according to truth, justice, duty and ethical principles. **(1)**

c) Explain three ways scriptures provide guidance to believers.
(3 marks)

Any three:

- Teach religious beliefs and values. **(1)**
- Guide moral and ethical behaviour. **(1)**
- Provide spiritual guidance.
- Preserve religious traditions.
- Help believers understand their duties.
- Provide guidance when facing moral challenges.
- Inspire devotion and spiritual development.
- Preserve cultural heritage.

d) Explain two ways Hindu scriptures can influence the conduct of young people.
(2 marks)

Any two:

- They can encourage **truthfulness and honesty** in everyday life. **(1)**
- They can encourage learners to perform their duties responsibly. **(1)**
- They can discourage harmful behaviour.
- They can promote compassion and service.
- They can encourage self-discipline.
- They can help learners make ethical decisions.

e) State two dangers of deliberately misrepresenting religious teachings.
(2 marks)

Any two:

- Can cause religious misunderstanding. **(1)**
- Can promote religious intolerance or conflict. **(1)**
- Can spread misinformation.
- Can disrespect believers.
- Can distort the original teaching.
- Can create prejudice and stereotypes.
- Can damage trust.

QUESTION 10: LAW OF KARMA AND CULTURAL PRACTICES

(10 marks)

a) Identify the principle illustrated.
(1 mark)

- **Law of Karma. (1)**

b) Define the Law of Karma.
(2 marks)

- Karma refers to a person's **actions and deeds**. **(1)**
- The Law of Karma teaches that actions have consequences; righteous actions produce beneficial consequences while wrongful actions produce undesirable consequences. **(1)**

c) Explain three ways the Law of Karma can influence decision-making among young people.
(3 marks)

Any three:

- Encourages young people to consider the consequences of their actions. **(1)**
- Encourages honesty and responsible behaviour. **(1)**
- Discourages harmful or immoral conduct. **(1)**
- Encourages kindness and compassion.
- Promotes personal responsibility.
- Discourages cheating and corruption.
- Encourages young people to make morally responsible choices.

d) Explain two functions of music in Hindu religious and cultural life.
(2 marks)

Any two:

- Music is used in **worship and devotion**. **(1)**
- It helps preserve and transmit religious teachings and cultural traditions. **(1)**
- It promotes spiritual concentration or meditation.
- It expresses devotion and praise.
- It promotes unity among worshippers.
- It accompanies religious ceremonies and celebrations.
- It educates younger generations about religious traditions.

e) State two ways dance contributes to the preservation of Hindu cultural heritage.
(2 marks)

Any two:

- Transmits cultural traditions from one generation to another. **(1)**
- Communicates religious stories and teachings. **(1)**
- Preserves traditional movements and artistic forms.
- Strengthens cultural identity.
- Educates younger generations about Hindu heritage.
- Preserves traditional costumes, gestures and performance practices.

GRADE 10 ICT

MARKING SCHEME / ANSWERS

SECTION A — 30 MARKS

QUESTION 1: ICT AND SOCIETY

(5 marks)

a) Define digital technology.
Digital technology refers to electronic technology that uses **digital signals/data to create, process, store, retrieve and communicate information**.
(1 mark)

b) Two ways ICT contributes to economic development in Kenya:
Any two:

- Creates employment opportunities.
- Facilitates e-commerce and online businesses.
- Improves productivity and efficiency.
- Promotes innovation and entrepreneurship.
- Facilitates access to financial services.
- Enables businesses to reach wider markets.

- Supports development of digital skills.
  2 × 1 = 2 marks

c) Two challenges arising from increased use of ICT:
Any two:

- Cybercrime and online fraud.
- Loss of privacy.
- Cyberbullying.
- Digital addiction.
- Unemployment resulting from automation in some sectors.
- Spread of misinformation.
- Digital divide.
- Exposure to inappropriate content.
  2 × 1 = 2 marks

QUESTION 2: ICT DEVICES AND THEIR FUNCTIONS

(5 marks)

a) Any two devices represented by A–D:
Accept:

- Scanner
- Microphone
- Webcam
- Projector

2 × 1 = 2 marks

b) One function of an input device:

- It is used to **enter data and instructions into a computer system**.
  (1 mark)

c) One function of an output device:

- It presents or communicates **processed information/results to the user**.
  (1 mark)

d) One storage device:
Any one:

- Hard disk drive
- Solid-state drive
- Flash disk/USB drive
- Memory card
- Optical disc
  (1 mark)

QUESTION 3: COMPUTER OPERATING ENVIRONMENT

(5 marks)

a) Difference between system software and application software:

- **System software** manages and controls computer hardware and provides a platform for other software to operate.
- **Application software** is designed to help the user perform specific tasks.

2 marks

b) One example of system software:
Any one:

- Microsoft Windows
- Linux
- Android
- macOS
- iOS
  (1 mark)

c) Two examples of application software:
Any two:

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Publisher
- Web browser
- Media player
- Graphics software
  2 × 1 = 2 marks

QUESTION 4: FILE MANAGEMENT

(5 marks)

a) Name given to "Grade 10":

- **Folder** / parent folder / main folder.
  (1 mark)

b) Two subfolders in the ICT folder:
Any two:

- Notes
- Assignments
- Projects
  2 × 1 = 2 marks

c) Two benefits of organising files into folders:
Any two:

- Makes files easier to locate.
- Reduces disorganisation.
- Saves time when searching for files.
- Helps separate files according to subjects/categories.

- Makes file management easier.
- Reduces chances of accidentally deleting or misplacing files.
  2 × 1 = 2 marks

QUESTION 5: DIGITAL SAFETY AND SECURITY

(5 marks)

a) One security risk:

- An unauthorised person could access the learner's account and personal information.
  (1 mark)

Other acceptable answers:

- Account misuse.
- Identity theft.
- Data theft.
- Unauthorised changes to the account.
- Privacy breach.

b) Two actions before leaving the computer:

- Log out/sign out of the account.
- Close the browser/application.
- Clear sensitive session information where appropriate.
- Lock the computer.
  2 × 1 = 2 marks

c) Two characteristics of a strong password:
Any two, suitably explained:

- It should be **long**, preferably containing several characters.
- It should combine **uppercase and lowercase letters**.
- It should contain **numbers**.
- It should contain **special characters**.
- It should not contain easily guessed personal information.
- A different password should be used for different important accounts.
  2 × 1 = 2 marks

QUESTION 6: DIGITAL CITIZENSHIP AND ETHICS

(5 marks)

a) Meaning of digital ethics:
Digital ethics refers to the **principles and standards that guide responsible, respectful and morally acceptable behaviour when using digital technologies**.
(1 mark)

b) Two ways of respecting intellectual property:
Any two:

- Acknowledge/cite the original author or source.
- Obtain permission before using copyrighted material where required.

- Avoid plagiarism.
- Use legally licensed or openly licensed resources.
- Observe copyright conditions.

2 × 1 = 2 marks

c) Two examples of unacceptable online behaviour:
Any two:

- Cyberbullying.
- Online harassment.
- Identity theft.
- Spreading false information deliberately.
- Hacking.
- Sending threatening messages.
- Sharing someone's private information without permission.
- Online fraud.
- Plagiarism.

2 × 1 = 2 marks

SECTION B — 50 MARKS

QUESTION 7: WORD PROCESSING

(10 marks)

a) Four word-processing features:
Any four:

- Styles/headings
- Font formatting
- Paragraph alignment
- Line spacing
- Page numbering
- Tables
- Headers and footers
- Spell checker
- Find and Replace
- Bullets and numbering
- Margins/page setup
- Inserting images

2 × 1 = 2 marks

b)

Icon	Name	Role
↷	**Redo**	Repeats or restores the last action that was undone.
	**Borders**	Adds, removes, or changes borders around selected text, paragraphs, tables, or cells.

2 × 1 = 2 marks

c) Difference between Save and Save As:

Save:
Updates/saves changes made to an existing document using its current file name and location.

Save As:
Creates a new copy of the document, allowing the user to specify a **different file name, location or file format**.

2 marks

d) Two ways of inserting a table:
Any two:

- Use the **Insert → Table** command and select the required rows and columns.
- Use the **Draw Table** function.
- Insert a table by specifying the number of rows and columns in the table dialogue box.
  2 × 1 = 2 marks

e) Two reasons for using headings:
Any two:

- Organise information into sections.
- Make the document easier to read.
- Help readers locate specific information.
- Improve navigation through a long document.
- Give the document a clear structure.
  2 × 1 = 2 marks

QUESTION 8: PRESENTATION SOFTWARE

(10 marks)

a) Two elements shown in the slide:
Any two:

- Title
- Image/diagram
- Bulleted text
- Navigation button
- Slide content
  2 × 1 = 2 marks

b) Three guidelines for selecting presentation images:
Any three:

- Images should be relevant to the topic.
- Images should be clear and of suitable quality.
- Images should be appropriately sized.
- Images should not overcrowd the slide.
- Images should be legally usable/appropriately sourced.
- Images should help explain or reinforce the message.
- Avoid distracting or inappropriate images.
  3 × 1 = 3 marks

c) Two advantages of presentation software in education:
Any two:

- Makes lessons more visually engaging.
- Allows text, images, audio and video to be combined.
- Makes complex concepts easier to illustrate.
- Facilitates organised presentation of information.
- Makes teaching materials easy to edit and reuse.
- Supports interactive teaching.

2 × 1 = 2 marks

d) Three features that can make a presentation interactive/engaging:
Any three:

- Hyperlinks
- Buttons/action buttons
- Animations
- Transitions
- Audio
- Video
- Embedded graphics
- Interactive questions/quizzes
- Charts/diagrams

3 × 1 = 3 marks

QUESTION 9: DESKTOP PUBLISHING

(10 marks)

a) Two publication elements shown in the flyer:
Any two:

- School name
- Main title
- Image
- Date
- Venue
- Activities
- Contact information

2 × 1 = 2 marks

b) Three factors when selecting images/graphics:
Any three:

- Relevance to the publication.
- Image quality/resolution.
- Appropriate size.
- Copyright/licensing requirements.
- Suitability for the target audience.
- Clarity.
- Colour compatibility with the publication.

3 × 1 = 3 marks

c) Two ways alignment improves a publication:
Any two:

- Creates a neat and organised appearance.
- Makes information easier to read.
- Creates visual consistency.
- Helps establish relationships between related elements.
- Gives the publication a professional appearance.
  2 × 1 = 2 marks

d) Three types of publications produced using desktop publishing software:
Any three:

- Posters
- Flyers
- Brochures
- Newsletters
- Magazines
- Invitations
- Business cards
- Certificates
- Calendars
  3 × 1 = 3 marks

QUESTION 10: INTERNET AND WEB TECHNOLOGIES

(10 marks)

a) What is a web browser?
A web browser is a **software application used to access, retrieve and display web pages and other resources on the World Wide Web**.
(1 mark)

b) What is a search engine?
A search engine is an **online service/system that helps users find information and resources on the Internet using search queries**.
(1 mark)

c) Two examples of web browsers:
Any two:

- Google Chrome
- Mozilla Firefox
- Microsoft Edge
- Safari
- Opera
  2 × 1 = 2 marks

d) Three criteria for determining whether an online source is reliable:
Any three:

- Check the **author/organisation** responsible for the information.
- Check the **date** of publication or updating.
- Check whether information is supported by **evidence/references**.
- Compare information with other reliable sources.

- Consider the reputation/authority of the website.
- Check whether the information is relevant and unbiased.
  3 × 1 = 3 marks

e) Three reasons for acknowledging online sources:
Any three:

- Gives credit to the original author.
- Prevents plagiarism.
- Allows readers to verify the information.
- Demonstrates responsible academic practice.
- Helps distinguish the learner's own ideas from borrowed information.
- Respects intellectual property rights.
  3 × 1 = 3 marks

QUESTION 11: DIGITAL COMMUNICATION AND COLLABORATION

(10 marks)

a) Three digital communication methods:
Any three:

- Email
- Instant messaging
- Video conferencing
- Voice calls/VoIP
- Discussion forums
- Social networking
- Learning management systems
  3 × 1 = 3 marks

b) Two digital tools supporting collaboration:
Any two:

- Cloud-based document editors.
- Shared online drives/cloud storage.
- Learning management systems.
- Online project-management tools.
- Collaborative presentation tools.
- Shared spreadsheets.
  2 × 1 = 2 marks

c) Two advantages of cloud-based collaboration tools:
Any two:

- Allow several users to access and work on files remotely.
- Enable real-time collaboration.
- Make files accessible from different devices.
- Reduce the need to exchange multiple copies of documents.
- Facilitate sharing of files and resources.
- Changes can be synchronised across users.
  2 × 1 = 2 marks

d) Three rules for online group communication:
Any three:

- Use respectful and appropriate language.
- Do not cyberbully or harass other members.
- Protect personal and confidential information.
- Avoid sharing false or unverified information.
- Respect other people's opinions.
- Do not share passwords.
- Avoid sending irrelevant messages/spam.
- Observe copyright when sharing materials.
- Respond appropriately and maintain professional communication.
  3 × 1 = 3 marks

IRE

MARKING SCHEME / ANSWERS

SECTION A: 30 MARKS

1:

(3 marks)

a) One method through which the Qur'an was preserved during the lifetime of Prophet Muhammad (PBUH):

- Through **memorisation by the companions (Huffaz)**.
- Through **writing the revelations on available writing materials**.
  Any one — 1 mark

b) Zayd ibn Thabit (R.A.) was suitable because:

- He was a trusted companion and one of the scribes who wrote the Qur'an during the lifetime of the Prophet (PBUH). **(1)**

c) Role of Hafsah bint Umar (R.A.):

- She kept the compiled manuscript of the Qur'an in her custody after the death of Abu Bakr (R.A.) and during the caliphate of Umar (R.A.). **(1)**

2:

(3 marks)

a) There was a need for diacritical marks because:

- Islam had spread to non-Arab-speaking communities, and new Muslims needed assistance in reading and pronouncing Qur'anic Arabic correctly. **(1)**

b) Two benefits:

- Helps distinguish between Arabic letters with similar shapes. **(1)**
- Helps readers pronounce words correctly and avoid errors in Qur'anic recitation. **(1)**

3:

(3 marks)

a) Asbabu al-Nuzul refers to:

- The circumstances, events or reasons associated with the revelation of particular Qur'anic verses. **(1)**

b) Two ways it assists in understanding the Qur'an:

- It provides the historical context in which a verse was revealed. **(1)**
- It helps clarify the intended meaning and application of a verse. **(1)**

4:

(3 marks)

a) One characteristic of 'Ibad al-Rahman:

- They walk on earth with humility. **(1)**
- They respond peacefully to ignorant people.
- They spend their wealth moderately.

- They worship Allah sincerely.
- They avoid major sins.

Any one — 1 mark

b) Two behaviours Muslims are encouraged to avoid:

- Shirk. **(1)**
- Unlawful killing. **(1)**
- Zina.
- Extravagance/wastefulness.
- Arrogance.

Any two — 2 marks

5:

(3 marks)

a) Hadith refers to:

- The sayings, actions, approvals and descriptions of Prophet Muhammad (PBUH). **(1)**

b) Difference:

- **Sahih Hadith:** A Hadith regarded as authentic because it fulfils the recognised conditions of authenticity, including a reliable and connected chain of transmission. **(1)**
- **Da'if Hadith:** A Hadith that is classified as weak because it does not fulfil one or more conditions required for authenticity. **(1)**

6:

(3 marks)

a) One prayer performed during an eclipse:

- **Salat al-Kusuf** — solar eclipse. **(1)**
- **Salat al-Khusuf** — lunar eclipse.

b) Two circumstances:

- During a solar or lunar eclipse. **(1)**
- When Muslims seek rain during drought through Salat al-Istisqa. **(1)**

Other relevant special prayers/circumstances may be accepted.

7:

(3 marks)

a) One Islamic duty towards a deceased Muslim:

- Washing the body.
- Shrouding the body.

- Performing Salat al-Janazah.
- Burial.
  Any one — 1 mark

b) Two purposes of Salat al-Janazah:

- To ask Allah to forgive and have mercy on the deceased. **(1)**
- To fulfil the communal religious responsibility towards the deceased. **(1)**

8:

(3 marks)

a) Difference:

- **Zakat** is an obligatory act of worship involving payment from eligible wealth to specified beneficiaries. **(1)**
- **Sadaqah** is voluntary charity or giving for the sake of Allah and is not restricted to the obligatory Zakat payment. **(1)**

b) One condition:

- The wealth reaches the required **Nisab**. **(1)**

Other relevant conditions, such as ownership of eligible wealth and completion of the applicable period (Hawl), may be accepted where appropriate.

9:

(3 marks)

a) Talaq means:

- Divorce initiated by the husband according to Islamic law. **(1)**

b) Two guidelines:

- Divorce should be undertaken according to the prescribed Islamic procedure and with fairness. **(1)**
- The rights of the wife and children should be respected and protected. **(1)**

Other acceptable answers include reconciliation before divorce, observing Iddah, avoiding abuse and fulfilling financial responsibilities.

10:

(3 marks)

a) One Islamic teaching on humility:

- A Muslim should avoid arrogance and treat other people with respect and modesty. **(1)**

b) Two ways honesty strengthens society:

- It builds trust between members of society. **(1)**
- It reduces deception, corruption, suspicion and conflict. **(1)**

SECTION B: 50 MARKS

11:

a) Four reasons for compilation during Abu Bakr's (R.A.) caliphate

(4 marks)

1. Many Qur'an memorizers were killed during the **Battle of Yamamah**. **(1)**
2. Umar ibn al-Khattab (R.A.) feared that the death of many Huffaz could lead to loss of some Qur'anic material. **(1)**
3. There was a need to bring the written Qur'anic materials together into one organised compilation. **(1)**
4. The compilation would preserve the Qur'an for future generations and reduce the possibility of loss. **(1)**

b) Three reasons for Uthman's (R.A.) standardisation

(3 marks)

1. Muslims in different regions were developing disagreements concerning Qur'anic recitation. **(1)**
2. Differences in dialects and modes of recitation were causing disputes among Muslims. **(1)**
3. Standardisation helped preserve unity and provide Muslims with an agreed written text of the Qur'an. **(1)**

c) Three lessons from the companions' preservation of the Qur'an

(3 marks)

1. Muslims should preserve and transmit religious knowledge accurately. **(1)**
2. Muslims should cooperate when protecting important Islamic institutions and values. **(1)**
3. Muslim unity should be maintained by resolving differences through consultation and sound scholarship. **(1)**

12:

a) Three differences between Muhkamat and Mutashabihat

(3 marks)

1. **Muhkamat** verses have clear and definite meanings, while **Mutashabihat** verses may have meanings that are not immediately apparent. **(1)**
2. Muhkamat verses are generally easier to understand directly, while Mutashabihat may require deeper knowledge and interpretation. **(1)**
3. Muhkamat provide a clearer basis for understanding Islamic teachings, whereas Mutashabihat require caution to avoid incorrect interpretation. **(1)**

b) Three benefits of studying Asbabu al-Nuzul

(3 marks)

1. It helps Muslims understand the circumstances surrounding the revelation of a verse. **(1)**
2. It helps clarify the meaning and purpose of Qur'anic verses. **(1)**
3. It assists Muslims in applying Qur'anic guidance appropriately to different situations. **(1)**

c) Four characteristics of 'Ibad al-Rahman

(4 marks)

Any four:

1. They walk on earth **humbly**. **(1)**
2. They respond peacefully to ignorant people. **(1)**
3. They spend their wealth moderately and avoid extravagance. **(1)**
4. They worship Allah sincerely and avoid shirk. **(1)**
5. They avoid unlawful killing. **(1)**
6. They avoid zina. **(1)**
7. They repent sincerely after committing wrong. **(1)**
8. They pray for righteous spouses and offspring. **(1)**
9. They remain patient and steadfast in righteousness. **(1)**

Maximum: 4 marks

13:

a) Three special prayers and their circumstances

(6 marks)

1. Salat al-Kusuf

- It is performed during a **solar eclipse**. **(1)**
- It reminds Muslims to turn to Allah through prayer and supplication during the unusual natural phenomenon. **(1)**

2. Salat al-Khusuf

- It is performed during a **lunar eclipse**. **(1)**
- Muslims use the occasion to pray, remember Allah and seek His guidance and mercy. **(1)**

3. Salat al-Istisqa

- It is performed when Muslims experience **drought or shortage of rainfall** and seek rain from Allah. **(1)**
- It involves turning to Allah through prayer, supplication and repentance. **(1)**

Total: 6 marks

b) Four major stages of the Islamic funeral process

(4 marks)

1. **Ghusl:** The deceased is washed and purified according to Islamic procedures. **(1)**
2. **Kafan:** The body is wrapped in the prescribed shroud. **(1)**
3. **Salat al-Janazah:** Muslims perform the funeral prayer and pray for the deceased. **(1)**
4. **Burial:** The deceased is taken to the grave and buried according to Islamic procedures. **(1)**

14:

a) Three Islamic principles guiding divorce

(3 marks)

1. Divorce should be used only after reasonable attempts at reconciliation have failed. **(1)**
2. The process should be carried out with fairness and without oppression or abuse. **(1)**
3. The rights of the divorced woman and children, including appropriate maintenance and other lawful rights, should be respected. **(1)**

Other relevant Islamic principles may be accepted.

b) Three ways of protecting widows

(3 marks)

1. Ensure that widows receive their lawful inheritance. **(1)**
2. Protect their dignity, property and other rights. **(1)**
3. Provide financial, emotional and social support when they are in need. **(1)**

c) Two principles governing labour relations

(2 marks)

1. Employers should treat workers fairly and pay agreed wages promptly. **(1)**
2. Employees should perform their duties honestly, diligently and responsibly. **(1)**

Other relevant principles such as safe working conditions and respect for contracts may be accepted.

d) Two ways Zakat supports vulnerable people

(2 marks)

1. It provides assistance to poor and needy people to meet their basic needs. **(1)**
2. It can help eligible beneficiaries improve their economic circumstances and become self-reliant. **(1)**

15:

a) Three qualities needed when carrying out Da'wah

(3 marks)

1. **Wisdom:** A Muslim should present Islamic teachings appropriately according to the situation and audience. **(1)**
2. **Patience:** A Da'i should remain patient even when people do not immediately accept the message. **(1)**
3. **Good character:** A Da'i should demonstrate honesty, kindness, respect and good conduct. **(1)**

Other acceptable qualities include knowledge, sincerity, tolerance, gentleness and good communication.

b) Two reasons Islam prohibits intoxicants and harmful substances

(2 marks)

1. Intoxicants impair the mind and can prevent a person from making sound moral and religious decisions. **(1)**
2. They can cause harm to individuals, families and society through addiction, accidents, violence and other social problems. **(1)**

c) Two major achievements of the Umayyad period

(2 marks)

Any two:

1. Expansion of the Islamic state into parts of North Africa, Spain and other territories. **(1)**
2. Development and improvement of administrative systems. **(1)**
3. Development of roads, public buildings and other infrastructure. **(1)**
4. Development of Islamic architecture, including major mosques. **(1)**
5. Promotion and development of Arabic as an administrative language. **(1)**

d) One contribution of Umar ibn Abdulaziz (R.A.) to Islamic governance

(1 mark)

- He promoted **justice, accountability and fair administration** and worked to reduce corruption and oppression. **(1)**

e) Two contributions of Muslim scholars to civilisation

(2 marks)

Any two:

- Contributions to **mathematics**, including algebra. **(1)**
- Contributions to **medicine** and medical literature. **(1)**
- Development of **astronomy**. **(1)**
- Contributions to **geography and cartography**. **(1)**
- Advancement of **chemistry** and other sciences. **(1)**
- Establishment and development of centres of learning, libraries and scholarly institutions. **(1)**

Maximum: 2 marks

GREDI YA 10 – KISWAHILI

MWONGOZO WA MAJIBU NA USAHIHISHAJI

KAZI YA 1: UFAHAMU

Alama 10

a) Vifaa viwili vya kidijitali.
(Alama 2)

- Simu za mkononi. ✓
- Tarakilishi. ✓
- Vifaa vingine vya kidijitali. ✓

Alama 1 kwa kila jibu sahihi.

b) Manufaa mawili ya intaneti kwa mwanafunzi.
(Alama 2)

- Humwezesha kupata vitabu vya kielimu. ✓
- Humwezesha kupata majarida na makala za kielimu. ✓
- Humwezesha kupata video za kielimu. ✓
- Humwezesha kupata taarifa kwa urahisi. ✓

Alama 1 kwa kila hoja.

c) Kwa nini baadhi ya vijana hupuuza masomo yao kwa sababu ya teknolojia?
(Alama 2)

- Hutumia muda mwingi kwenye mitandao ya kijamii. ✓
- Hivyo hukosa muda wa kutosha wa kusoma na kufanya kazi za shule. ✓

d) Changamoto mbili za matumizi mabaya ya mitandao.
(Alama 2)

- Kukutana na taarifa za uongo. ✓
- Kukutana na lugha chafu. ✓
- Kukutana na watu wenye nia mbaya. ✓
- Kuhatarisha usalama wa mtumiaji. ✓
- Kuvunja faragha ya mtu. ✓

Alama 1 kwa kila hoja.

e) Hatua mbili za kutumia teknolojia kwa uwajibikaji.
(Alama 2)

- Kupanga muda wa kutumia vifaa vya kidijitali. ✓
- Kuchunguza uhalali wa taarifa kabla ya kuzitumia. ✓
- Kuepuka kushiriki taarifa binafsi na watu wasiowajua. ✓
- Kutumia teknolojia kwa madhumuni yenye manufaa. ✓

Alama 1 kwa kila hoja.

KAZI YA 2:

Alama 10

Majibu:

a) **kuishi** ✓
b) **uangalifu** ✓
c) **kiangazi** ✓
d) **maji ya mvua** ✓
e) **kilimo** ✓
f) **chemchemi** ✓
g) **kuchafua** ✓
h) **miti** ✓
i) **kuhifadhi** ✓
j) **endelevu** ✓

Alama 1 kwa kila jibu sahihi.

Majibu mengine yenye maana sawa na yanayokidhi muktadha yanaweza kukubaliwa.

KAZI YA 3: SARUFI NA MSAMIATI

Alama 30

A. Aina za Maneno

Alama 6

a) Vijana
Jibu: **Nomino** ✓

b) Huyo
Jibu: **Kiwakilishi cha kuonyesha** ✓

c) Kwa haraka
Jibu: **Kielezi ✓**

d) Walicheza
Jibu: **Kitenzi ✓**

e) Vitatu
Jibu: **Kivumishi cha idadi ✓**

f) Mwenye bidii
Jibu: **Kivumishi ✓**

Alama 1 kwa kila jibu.

B. Ngeli za Nomino

Alama 6

a) Vitabu hivi vimepangwa vizuri.

Jibu:

Kitabu hiki kimepangwa vizuri. ✓ ✓

- Vitabu → Kitabu ✓
- hivi → hiki / vimepangwa → kimepangwa ✓

Alama 2

b) Miti ile imekatwa.

Jibu:

Mti ule umekatwa. ✓ ✓

Alama 2

c) Majembe haya yamepotea.

Jibu:

Jembe hili limepotea. ✓ ✓

Alama 2

C. Nyakati za Vitenzi

Alama 6

a) Wanafunzi walisoma kuhusu mazingira.

Wakati uliopo:

Wanafunzi wanasoma kuhusu mazingira. ✓✓

Alama 2

b) Mama anapika chakula cha familia.

Wakati uliopita:

Mama alipika chakula cha familia. ✓✓

Alama 2

c) Wakulima wanapanda miti.

Wakati ujao:

Wakulima watapanda miti. ✓✓

Alama 2

D. Ukanushaji

Alama 4

a) Amina amemaliza kazi yake.

Jibu:

Amina hajamaliza kazi yake. ✓✓

Alama 2

b) Wanafunzi watafanya mtihani kesho.

Jibu:

Wanafunzi hawatafanya mtihani kesho. ✓✓

Alama 2

E. Mnyambuliko wa Vitenzi

Alama 4

a) Mwalimu ali_____ wanafunzi somo jipya.

Kitenzi: **fundisha**

Kauli ya kutendea:

Mwalimu aliwafundishia wanafunzi somo jipya. ✓✓

Alama 2

b) Juma ali_____ na mwalimu.

Kitenzi: **zungumza**

Kauli ya kutendana:

Juma alizungumza na mwalimu.

Angalizo la usahihishaji: Swali hili halina mnyambuliko wa kutendana unaohitajika kwa sababu kitenzi *zungumza* tayari kinatumika katika muundo huu. Kwa hivyo, mwanafunzi anayetoa sentensi yenye matumizi sahihi ya kitenzi **zungumza** apewe alama 2.

Alama 2

F. Msamiati

Alama 4

a) Kwa bidii

Jibu linalokubalika:

- **Kwa juhudi ✓**
- **Kwa maarifa/juhudi kubwa ✓**

Alama 1

b) Makini

Jibu:

- **Waangalifu ✓**

- **Chonjo ✓**

Alama 1

c) Kulinda

Jibu:

- **Kuhifadhi ✓**
- **Kutunza ✓**

Alama 1

d) Ya uwongo

Jibu:

- **Ya uongo ✓**
- **Si ya kweli ✓**
- **Yasiyo ya kweli ✓**

Alama 1

KAZI YA 4: UFAHAMU – WANYAMAPORI

Alama 10

a) Wanyama wawili waliotajwa.

(Alama 2)

Mifano:

- Simba ✓
- Tembo ✓
- Twiga ✓
- Vifaru ✓
- Nyati ✓

Alama 1 kwa kila mnyama.

b) Njia mbili ambazo utalii wa wanyamapori huchangia maendeleo ya nchi.

(Alama 2)

- Huleta mapato nchini. ✓
- Hutoa ajira kwa wananchi. ✓
- Husaidia maendeleo ya jamii zinazoishi karibu na hifadhi. ✓

- Hukuza sekta ya utalii. ✓

Alama 1 kwa kila hoja.

c) Changamoto mbili zinazowakabili wanyamapori.

(Alama 2)

- Uwindaji haramu/ujangili. ✓
- Uharibifu wa makazi. ✓
- Ukame. ✓
- Migogoro kati ya binadamu na wanyama. ✓

Alama 1 kwa kila hoja.

d) Maana ya ujangili.

(Alama 2)

Ujangili ni uwindaji au ukamataji wa wanyama wa porini kinyume cha sheria, hasa kwa madhumuni ya kupata faida. ✓✓

Alama 2

e) Hatua mbili za kuwalinda wanyamapori.

(Alama 2)

- Kupambana na ujangili/uwindaji haramu. ✓
- Kulinda makazi ya wanyamapori. ✓
- Kutoa taarifa kuhusu vitendo vya ujangili. ✓
- Kuelimisha jamii kuhusu umuhimu wa wanyamapori. ✓
- Kushirikiana na serikali katika uhifadhi. ✓

Alama 1 kwa kila hoja.

KAZI YA 5: INSHA

Alama 20

Mwanafunzi anajibu **swali moja pekee**.

SWALI A

“Siku hiyo nilikuwa nimejiandaa kwenda shuleni kama kawaida, lakini nilipofungua mlango nilishangazwa na nilichokiona...”

Hakuna jibu moja maalumu. Mwanafunzi anapaswa kuendeleza kisa kwa ubunifu na mtiririko unaoeleweka.

Mwongozo wa usahihishaji

Kipengele	Alama
Maudhui na ubunifu	8
Mpangilio na mtiririko	4
Sarufi	4
Msamiati	2
Tahajia, uakifishaji na mwonekano	2
Jumla	**20**

Maudhui na Ubunifu – Alama 8

Mwanafunzi anatarajiwa:

- Kuendeleza mwanzo aliopewa. ✓
- Kuonyesha jambo alililoliona. ✓
- Kuendeleza matukio kwa mtiririko. ✓
- Kutumia wahusika ipasavyo. ✓
- Kuonyesha kilele cha kisa. ✓
- Kutoa hitimisho linaloeleweka. ✓
- Kuonyesha ubunifu. ✓
- Kuzingatia mada. ✓

SWALI B

“Uhifadhi wa mazingira ni jukumu la kila mwananchi. Ikiwa kila mmoja wetu angechukua hatua...”

Mwanafunzi anapaswa kuandika insha kuhusu **umuhimu wa kuhifadhi mazingira katika jamii**.

Hoja zinazoweza kutolewa

- Kupanda miti. ✓
- Kuzuia ukataji wa miti kiholela. ✓
- Kutunza vyanzo vya maji. ✓
- Kuepuka uchafuzi wa mazingira. ✓
- Kutenganisha na kutupa taka ipasavyo. ✓
- Kuhifadhi wanyamapori. ✓
- Kuelimisha jamii kuhusu uhifadhi wa mazingira. ✓
- Kutumia rasilimali kwa njia endelevu. ✓
- Kupunguza matumizi ya vitu vinavyochafua mazingira. ✓
- Kushirikiana na serikali katika shughuli za uhifadhi. ✓

Mwongozo wa usahihishaji

Kipengele	Alama

Maudhui na hoja	8
Mpangilio na mtiririko	4
Sarufi	4
Msamiati	2
Tahajia, uakifishaji na mwonekano	2
Jumla	**20**

GRADE 10 – LITERATURE IN ENGLISH

MARKING SCHEME

TOTAL: 70 MARKS

SECTION A: ORAL NARRATIVE

QUESTION 1 — 20 MARKS

a) Identify the genre. (1 mark)

Answer:
A folktale. ✓

Accept: traditional tale / folk narrative.

1 mark

b) Two characteristics of the genre. (2 marks)

Any **two**, 1 mark each:

- It is traditionally passed from one generation to another. ✓
- It contains a moral lesson. ✓
- It may contain supernatural or fantastic events. ✓
- It has simple, memorable characters. ✓
- It may use repetition and formulaic expressions. ✓
- It reflects the values and beliefs of a community. ✓

2 marks

c) Opening formula. (1 mark)

Answer:
"Long ago, in a village called Lengo…" ✓

1 mark

d) Two characters. (2 marks)

Any two:

- Amina ✓
- Amina's grandmother ✓
- Chief Baraka ✓
- Kenga ✓
- The old traveller / wise elder ✓

1 mark each = 2 marks

e) Why was Mwangaza unusual? (1 mark)

It was believed to be an extraordinary drum whose sound could be heard throughout the village / it could speak and reveal truths about people's hearts. ✓

1 mark

f) Amina's character. (3 marks)

Any three well-supported points:

- **Generous** — she gives part of her grain to the hungry traveller. ✓
- **Respectful / obedient** — she remembers and follows her grandmother's advice. ✓
- **Compassionate** — she responds to the traveller's need. ✓
- **Wise** — she understands the importance of sharing. ✓

1 mark each = 3 marks

g) Two supernatural/fantastic elements. (3 marks)

Possible answers:

1. The drum speaks human words. ✓
2. The drum reveals people's inner qualities. ✓
3. The drum is portrayed as possessing extraordinary powers. ✓

Award **1 mark** for each correctly identified element and explanation where appropriate.

3 marks

h) Effect of "BOOM! BOOM! BOOM!" (3 marks)

Any three:

- Creates rhythm and sound imagery. ✓
- Emphasizes the power of the drum. ✓
- Builds suspense and anticipation. ✓
- Attracts the attention of the villagers. ✓
- Makes the performance more dramatic and memorable. ✓

3 marks

i) Moral lesson. (2 marks)

Possible answers:

- People should be generous and willing to share with others. ✓
- A strong community depends on kindness and cooperation. ✓
- Greed does not make a person truly rich. ✓
- We should help people who are in need. ✓

Any **two relevant points**, 1 mark each.

2 marks

j) Personal response. (2 marks)

Award:

- Appropriate decision — e.g. **Yes, I would share the grain. ✓**
- Relevant justification — e.g. **The traveller was hungry and sharing demonstrates compassion and generosity. ✓**

Accept a well-reasoned alternative response.

2 marks

SECTION B: ORAL LITERATURE

35 MARKS

QUESTION 2 — Three genres of oral literature (3 marks)

Any three:

- Oral narratives ✓
- Songs ✓
- Proverbs ✓
- Riddles ✓
- Oral poetry ✓
- Tongue twisters ✓
- Greetings ✓
- Oral drama ✓
- Praise poetry ✓

- Legends ✓
- Myths ✓
- Folktales ✓

1 mark each = 3 marks

QUESTION 3 — Five types of songs (5 marks)

Any five:

- Work songs ✓
- Wedding songs ✓
- Funeral songs ✓
- Initiation songs ✓
- War songs ✓
- Praise songs ✓
- Political songs ✓
- Lullabies ✓
- Hunting songs ✓
- Religious songs ✓
- Children's songs ✓
- Love songs ✓
- Birth songs ✓
- Harvest songs ✓

1 mark each = 5 marks

QUESTION 4 — Four characteristics of oral literature (8 marks)

Award **2 marks per characteristic**:

i. Oral transmission
Oral literature is mainly passed from one generation to another through speech, performance and memory.
2 marks

ii. Performance
It is presented before an audience using voice, gestures, movement, music or other performance techniques.
2 marks

iii. Audience participation
The audience may respond through singing, clapping, answering questions, dancing or repeating words.
2 marks

iv. Use of artistic devices
It uses repetition, rhythm, imagery, symbolism, proverbs and other techniques to make performances effective and memorable.
2 marks

Other relevant characteristics should be accepted.

8 marks

QUESTION 5 — Functions of oral literature (10 marks)

Award **2 marks for each correctly stated and explained function**.

1. Education
It teaches children and members of society values, skills, history and acceptable behaviour.
2 marks

2. Entertainment
Songs, stories, riddles and performances provide enjoyment and relaxation.
2 marks

3. Preservation of culture
It preserves traditions, beliefs, customs, history and community knowledge.
2 marks

4. Moral instruction
Stories and songs teach people what is considered right or wrong in society.
2 marks

5. Socialization
It helps young people learn the values, language, behaviour and expectations of their community.
2 marks

Other valid functions such as political mobilization, criticism of society, religious instruction, unity and historical preservation should be accepted.

10 marks

QUESTION 6 — Digital space and oral literature (8 marks)

Award **2 marks for each well-developed point**.

Possible answers:

1. Preservation
Digital platforms allow oral performances to be recorded and stored for future generations.
2 marks

2. Wider audience
Social media and video-sharing platforms enable oral artists to reach audiences beyond their local communities.
2 marks

3. Easy sharing
Songs, stories, poems and performances can be quickly shared through phones and online platforms.
2 marks

4. Collaboration and creativity
Digital platforms allow performers from different communities to exchange ideas and create new forms of oral expression.
2 marks

Other relevant points:

- Documentation of endangered languages.
- Promotion of indigenous culture.
- Online storytelling.
- Creation of podcasts.
- Digital music and spoken-word performances.
- Educational use of recorded oral materials.

8 marks

QUESTION 7 — One challenge of digital technology (1 mark)

Any relevant challenge:

- Traditional performances may lose their original form through excessive modification. ✓
- False or inaccurate versions of cultural stories may spread quickly. ✓
- Some young people may become less interested in traditional live performances. ✓
- Commercialization may reduce the cultural value of some performances. ✓
- Digital content may be copied without acknowledging the original performers. ✓

1 mark

SECTION C: POETRY

QUESTION 8 — 15 MARKS

a) Persona (2 marks)

The persona is a member of the community / a young person or cultural voice speaking about traditional and modern storytelling. ✓✓

Accept: **a collective community voice**, provided it is well explained.

2 marks

b) Two pairs of rhyming words (2 marks)

Any two pairs:

- **hands – lands** ✓
- **old – told** ✓
- **tongue – young** ✓
- **call – all** ✓
- **wide – beside** ✓
- **rhyme – time** ✓
- **fade – shade** ✓
- **meet – complete** ✓

1 mark per correct pair = 2 marks

c) Main message (2 marks)

The poem encourages society, especially young people, to preserve traditional culture while embracing modern methods of communication and storytelling. ✓✓

2 marks

d) Personification (1 mark)

Answer:
"The drum can speak without a tongue." ✓

The drum is given the human ability to speak.

1 mark

e) Symbolism of the drum (2 marks)

The drum symbolizes:

- **Cultural heritage/tradition ✓**
- **Communication and preservation of community memories ✓**

2 marks

f) Influence of technology (2 marks)

The poem shows that modern technology, particularly phones, can carry songs, stories and other forms of oral literature across wider distances and to more people. ✓✓

2 marks

g) Attitude towards traditional culture (2 marks)

Attitude: The persona is **positive/protective/proud** of traditional culture. ✓

Reason: The persona urges people not to allow old traditions to disappear and encourages the past to work together with the future. ✓

2 marks

h) Lesson for young people (2 marks)

Any relevant lesson:

- Young people should preserve their cultural heritage. ✓
- Modern technology can be used positively to promote culture. ✓
- Tradition and modernity can coexist. ✓
- Young people should value stories, songs and cultural knowledge passed down by older generations. ✓

2 marks

SENIOR SCHOOL – GRADE 10

MANDARIN CHINESE

MARKING SCHEME

SECTION A – 30 MARKS

TASK 1: COMPREHENSION – 20 MARKS

1.1 Answers in English – 5 Marks

a) **She is fifteen years old.**
(1 mark)

b) **She lives in Nakuru.**
(1 mark)

c) Any two:

- Her father.
- Her mother.
- Her younger brother.

(1 mark for any two correct people)

d) **Because she thinks Chinese is interesting.**
(1 mark)

e) **She hopes to go to China to study Chinese and learn about Chinese culture.**
(1 mark)

1.2 Answers in Chinese Characters – 5 Marks

a) **五点半起床。**
(1 mark)

b) **她坐公共汽**车去学校。
(1 mark)

c) **中文。**
(1 mark)

d) **她有**时候看电视，有时候读书。
(1 mark)

e) **她喜**欢和朋友一起打排球。
(1 mark)

1.3 Pinyin – 5 Marks

Award **1 mark each** for correct Pinyin and tone marks.

a) 朋友 — **péngyou**

(1 mark)

b) 肯尼亚 — **Kěnníyà**
(1 mark)

c) 家人 — **jiārén**
(1 mark)

d) 中文 — **Zhōngwén**
(1 mark)

e) 文化 — **wénhuà**
(1 mark)

1.4 Vocabulary and Character Recognition – 5 Marks

(a) English meanings

i) 弟弟 — **younger brother**
(1 mark)

ii) 早餐 — **breakfast**
(1 mark)

iii) 家务 — **housework / household chores**
(1 mark)

(b) Chinese characters

i) xuéxiào — **学校**
(1 mark)

ii) māma — 妈妈
(1 mark)

SECTION B – 50 MARKS

TASK 2: GRAMMAR, PINYIN AND WRITING MECHANICS – 30 MARKS

2.1 Rearrange the words – 5 Marks

a) **今天是星期一。**
(1 mark)

b) **我喜**欢看书。
(1 mark)

c) **我在学校学**习。
(1 mark)

d) **我和**妈妈住。
(1 mark)

e) **她每天学**习中文。
(1 mark)

2.2 Complete the sentences – 5 Marks

a) **我也**喜欢中文。
(1 mark)

b) 你是学生吗？
(1 mark)

c) 我的老师**很**友好。
(1 mark)

d) **我不**喜欢咖啡，我**也不**喜欢茶。
(1 mark)

e) 我和朋友**都**学习中文。
(1 mark)

Important note:

For **2.2(a)**, both **很** and **也** may appear possible depending on intended meaning. The preferred answer is **也** because the exercise provides the target vocabulary. Accept **很** if the resulting sentence is grammatically and contextually acceptable.

2.3 Time expressions – 5 Marks

a) **我每天去学校。**
(1 mark)

b) **她晚上做作**业。
(1 mark)

c) **我**们星期六打篮球。
(1 mark)

d) **他早上六点吃早餐。**
(1 mark)

e) **我下午学**习中文。
(1 mark)

2.4 Sentence transformation – 5 Marks

a) **你喜**欢中文吗？
(1 mark)

b) **我不喜**欢看电视。
(1 mark)

c) **她没有弟弟。**

(1 mark)

d) **他喜欢什么？**
(1 mark)

e) **谁是我的中文老师？**
(1 mark)

2.5 Pinyin and tone marks – 5 Marks

(a) Add tone marks

i) ni hao — **nǐ hǎo**
(1 mark)

ii) pengyou — **péngyou**
(1 mark)

iii) xuexiao — **xuéxiào**
(1 mark)

(b) Write Pinyin

i) **家人** — **jiārén**
(1 mark)

ii) **文化** — **wénhuà**
(1 mark)

2.6 Chinese character writing mechanics – 4 Marks

(a) Correct characters

i) **口**
(1 mark)

ii) **女**
(1 mark)

(b) Stroke count

i) **人** — **2 strokes**
(1 mark)

ii) **女** — **3 strokes**
(1 mark)

2.7 Chinese punctuation – 1 Mark

Correct form:

你叫什么名字？你是哪国人？

Award **1 mark** for appropriate use of Chinese question marks and separation of the two questions.

2.8 Character meaning – 2 Marks

a) **大** — **big / large**
(1 mark)

b) **小** — **small / little**
(1 mark)

TASK 3: WRITING – 20 MARKS

3.1 Character formation and copying – 5 Marks

Expected words:

朋友　学校　老师　中文　家庭

Award:

Word	Marks
朋友	1
学校	1
老师	1
中文	1
家庭	1
TOTAL	**5**

The examiner should consider:

- Correct character formation.
- Legibility.
- Correct components.
- Appropriate spacing.
- Correct stroke direction/order where observable.

3.2 Chinese characters from Pinyin – 5 Marks

a) bàba — **爸爸**
(1 mark)

b) māma — 妈妈
(1 mark)

c) xuéshēng — **学生**
(1 mark)

d) lǎoshī — **老师**
(1 mark)

e) péngyou — **朋友**

(1 mark)

3.3 Guided Composition – 10 Marks

Question

我的家庭

The learner was required to write approximately **80–100 Chinese characters** about his/her family.

Sample answer

我家有五个人：爸爸、妈妈、哥哥、妹妹和我。我们住在纳库鲁。爸爸是一名老师，妈妈是一名护士。我的哥哥十七岁，妹妹十二岁。我很喜欢我的家庭。星期六我们常常一起吃饭、看电视和聊天。我觉得我的家人很友好，也很爱我。

English meaning

There are five people in my family: my father, mother, elder brother, younger sister and me. We live in Nakuru. My father is a teacher and my mother is a nurse. My elder brother is seventeen years old and my younger sister is twelve. I like my family very much. On Saturday we often eat, watch television and chat together. I think my family members are very friendly and love me very much.

Marking rubric – 10 Marks

Area	Marks
Content / task fulfilment	3
Vocabulary	2
Grammar and sentence construction	2
Chinese character accuracy	2
Punctuation, spacing and presentation	1
TOTAL	**10**

Content guide

Award content marks for inclusion of:

- Number of family members.
- Family relationships.
- Place of residence.
- Parents/guardians.
- Brothers/sisters.
- Family activities.
- Personal opinion about family.

Accept any other relevant, coherent and grammatically acceptable composition.

TASK 4: ORAL ASSESSMENT – 10 MARKS

4.1 Personal information – 4 Marks

The learner should introduce himself/herself and family.

Possible response:

我叫王明。我今年十六岁。我是肯尼亚人。我是十年级学生。我家有五个人：爸爸、妈妈、哥哥、妹妹和我。

Pinyin:

Wǒ jiào Wáng Míng. Wǒ jīnnián shíliù suì. Wǒ shì Kěnníyà rén. Wǒ shì shí niánjí xuéshēng. Wǒ jiā yǒu wǔ gè rén: bàba, māma, gēge, mèimei hé wǒ.

Mark allocation

Information	Marks
Name	1
Age	1
Nationality/grade	1
Family information	1
TOTAL	**4**

4.2 Oral Questions – 3 Marks

(a) 你今年几岁？

Possible answer:

我今年十六岁。

(1 mark)

(b) 你家有几个人？

Possible answer:

我家有五个人。

(1 mark)

(c) 你最喜欢什么科目？为什么？

Possible answer:

我最喜欢中文，因为中文很有意思。

(1 mark)

Other appropriate answers should be accepted.

4.3 Picture-Based Speaking – 3 Marks

Possible responses include:

这是一个家庭。

他们在家里。
爸爸、妈妈和孩子们在一起。
他们正在吃饭。
他们很开心。

Mark allocation

Area	Marks
At least three relevant sentences	1
Appropriate vocabulary/grammar	1
Pronunciation, fluency and communication	1
TOTAL	**3**

ORAL ASSESSMENT RUBRIC – 10 MARKS

Criterion	Marks
Pronunciation and tones	2
Fluency and confidence	2
Vocabulary	2
Grammar and sentence construction	2
Listening comprehension and appropriate responses	2
TOTAL	**10**

CONSOLIDATED MARKING SUMMARY

Section	Task	Marks
A	Task 1 – Comprehension	20
B	Task 2 – Grammar, Pinyin & Writing Mechanics	30
B	Task 3 – Writing	20
B	Task 4 – Oral Assessment	10
	TOTAL	**80**

GRADE 10 KENYA – MARINE TECHNOLOGY

MARKING SCHEME / ANSWERS

SECTION A — 30 MARKS

1:

a) Definitions

i. Fisheries resource
A living aquatic resource that can be harvested or utilised by people, such as fish and other aquatic organisms. **(1 mark)**

ii. Capture fisheries
The harvesting of fish and other aquatic organisms from their natural habitats without farming them. **(1 mark)**

iii. Fishery
An organised activity or industry involving the catching, processing, marketing and utilisation of fish and other aquatic resources. **(1 mark)**

b) Importance of fisheries resources

Any **three**:

- Provide food and nutritional protein.
- Create employment.
- Generate income for individuals and communities.
- Provide raw materials for fish-processing industries.
- Generate government revenue.
- Earn foreign exchange through exports.
- Promote development of fishing communities.
- Provide opportunities for entrepreneurship.

(3 marks)

2:

a) Identify the aquatic habitat.

Freshwater aquatic habitat/ecosystem. (1 mark)

b) Biotic factors

Any **two**:

- Fish.
- Aquatic plants.
- Algae.
- Plankton.
- Aquatic microorganisms.
- Predators.
- Decomposers.

(2 marks)

c) Abiotic factors

Any **three**:

- Water temperature.
- Dissolved oxygen.
- Salinity.
- Light penetration.
- Water depth.
- pH.
- Water currents.
- Turbidity.
- Nutrient concentration.

(3 marks)

3:

a) Identification

Accept the structure corresponding to the indicated position in the diagram:

M – Dorsal fin (1 mark)
N – Pectoral fin (1 mark)
O – Pelvic fin (1 mark)
P – Caudal fin/tail fin (1 mark)

b) Functions of fins

Any **two**:

- Provide propulsion.
- Assist in steering/direction.
- Maintain balance.
- Stabilise the fish.
- Assist in braking.
- Assist in changing direction.

(2 marks)

4:

a) Characteristics of a suitable fish-pond site

Any **four**:

- Reliable supply of clean water.
- Suitable soil, preferably soil with good water-retention capacity.
- Relatively level or gently sloping land.
- Free from flooding.
- Adequate sunlight.
- Accessible to roads and markets.

- Secure location.
- Suitable drainage.
- Adequate space.
- Free from sources of pollution.

(4 marks)

b) Dangers of establishing a pond in a polluted area

Any **two**:

- Fish may become sick or die.
- Water quality may deteriorate.
- Fish may accumulate harmful substances.
- Fish growth may be reduced.
- The fish may become unsafe for human consumption.
- Reproductive performance may be affected.

(2 marks)

5:

a) Signs of poor fish health

Any **three**:

- Loss of appetite.
- Slow growth.
- Abnormal swimming.
- Fish gasping at the water surface.
- External wounds or lesions.
- Discolouration.
- Excessive mucus production.
- Unusual mortality.
- Separation from the school.
- Damaged fins.

(3 marks)

b) Measures for maintaining good water quality

Any **three**:

- Regularly monitor water quality.
- Avoid overfeeding.
- Remove excess organic matter.
- Maintain appropriate stocking density.
- Control pollution.
- Maintain adequate dissolved oxygen.
- Remove dead fish promptly.
- Carry out appropriate water exchange.
- Prevent excessive accumulation of waste.

(3 marks)

SECTION B — 50 MARKS

6:

a) Ways the streamlined body assists fish survival

Any **four**:

1. Reduces resistance/friction as the fish moves through water. **(1)**
2. Allows efficient swimming. **(1)**
3. Enables the fish to move rapidly when escaping predators. **(1)**
4. Makes movement towards prey more efficient. **(1)**
5. Reduces energy expenditure during swimming. **(1)**

Maximum: 4 marks

b) Functions

i. Gills

- Extract dissolved oxygen from water for respiration. **(2 marks**

Accept: They also assist in removing carbon dioxide.

ii. Lateral line

- Detects vibrations, pressure changes and movements in surrounding water, helping fish locate prey, avoid predators and maintain position. **(2 marks)**

c) Adaptations for buoyancy

Any **two**:

- Presence of a swim bladder in many bony fish.
- Adjustment of gas volume in the swim bladder.
- Control of body density.
- Use of fins and body movement to maintain position in water.

(2 marks)

7:

a) Types of aquaculture production systems

Any **three well-described systems**.

1. Pond culture
Fish are reared in constructed or modified earthen or concrete ponds. **(2 marks)**

2. Cage culture
Fish are kept in cages or net enclosures placed in natural water bodies such as lakes. **(2 marks)**

3. Tank culture
Fish are reared in artificial tanks where water and feeding conditions can be controlled. **(2 marks)**

Other acceptable systems include **raceways** and other recognised aquaculture production systems.

Maximum: 6 marks

b) Survival rate

Number stocked = **2,000**

Number recovered = **1,700**

$$\text{Survival Rate} = \frac{\text{Number recovered}}{\text{Number stocked}} \times 100$$

$$= \frac{1,700}{2,000} \times 100$$

$$= 0.85 \times 100$$

$$\boxed{\text{Survival Rate} = 85\%}$$

Award:

- Correct formula – **1 mark**
- Correct substitution/calculation – **1 mark**
- Correct answer – **1 mark**

(3 marks)

c) Importance of survival rate

Any one:

- Helps determine the success of fish production.
- Helps the farmer estimate production losses.
- Assists in evaluating management practices.
- Helps in calculating expected harvest and income.

(1 mark)

8:

a) Factors considered when selecting fish feed

Any **four**:

- Nutritional requirements of the fish.

- Fish species.
- Size/age of fish.
- Growth stage.
- Digestibility of the feed.
- Availability of the feed.
- Cost of the feed.
- Water stability of the feed.
- Quality of ingredients.
- Feeding habits of the fish.

(4 marks)

b) Consequences of poor-quality/inappropriate feed

Any **three explained**:

1. Slow growth – fish do not receive adequate nutrients for proper development. **(1)**

2. Poor fish health – nutritional deficiencies may weaken fish and increase susceptibility to disease. **(1)**

3. Poor water quality – excess or uneaten feed decomposes and pollutes the pond. **(1)**

Other acceptable responses:

- Increased mortality.
- Poor feed-conversion efficiency.
- Increased production costs.
- Uneven growth.
- Reduced productivity.

(3 marks)

c) Good feeding practices

Any **three**:

- Feed fish at regular and appropriate times.
- Use feed appropriate for the species and size of fish.
- Provide the correct quantity.
- Spread feed evenly over the feeding area.
- Avoid overfeeding.
- Observe fish feeding behaviour.
- Adjust the ration according to fish growth and environmental conditions.
- Store feed in a cool, dry and clean place.
- Remove or manage excessive uneaten feed.

(3 marks)

9:

a) Identification of fishing methods

E – Fishing rod
F – Fishing hook
G – Sinker

Total: 3 marks

b) Advantages

E. Easy to use and suitable for catching fish individually.

F. Simple and inexpensive fishing equipment.

G. Helps the fishing line sink deeper into the water.

(1 mark)

c) Factors determining choice of fishing gear

Any **two**:

- Target species.
- Fish size.
- Fishing-ground depth.
- Type of water body.
- Behaviour of the fish.
- Cost of equipment.
- Fishing regulations.
- Availability of equipment.

(2 marks)

d) Responsible fishing practices

Any **two**:

- Use appropriate mesh sizes.
- Avoid catching juvenile fish.
- Observe closed seasons.
- Observe fishing quotas and regulations.
- Avoid destructive fishing methods.
- Protect breeding grounds.
- Avoid overfishing.
- Release protected/non-target species where required.

(2 marks)

10:

a) Safety precautions when working on or near water

Any **four**:

1. Wear a properly fitted life jacket/PFD.
2. Check weather and water conditions before departure.
3. Inspect the boat before use.
4. Do not overload the boat.
5. Carry adequate communication equipment.
6. Carry a first-aid kit.
7. Have appropriate emergency/survival equipment.
8. Follow navigation and fishing regulations.
9. Avoid operating on water during dangerous weather.
10. Ensure crew members understand emergency procedures.

(4 marks)

b) Importance of safety equipment

i. Life jacket/PFD

- Keeps a person afloat and reduces the risk of drowning if they fall into water. **(1 mark)**

ii. First-aid kit

- Provides materials for immediate treatment of injuries and minor emergencies. **(1 mark)**

c) Conservation of fisheries resources

Any **two explained**:

1. Use appropriate fishing gear and mesh sizes – prevents excessive capture of juvenile fish and allows stocks to reproduce. **(1 mark)**

2. Establish closed seasons or protected areas – allows fish to breed and nursery habitats to recover. **(1 mark)**

Other acceptable answers:

- Enforce fishing regulations.
- Control fishing effort.
- Protect breeding and nursery grounds.
- Prevent pollution.
- Control destructive fishing methods.
- Promote community participation in fisheries management.

(2 marks)

d) Entrepreneurial opportunities

Any **two**:

- Aquaculture farming.
- Fish trading.
- Fish processing.
- Fish transportation.
- Fish-feed production.
- Fishing gear manufacture or repair.
- Boat construction and repair.

- Fish hatchery operation.
- Fisheries consultancy.
- Marine equipment services.

(2 marks)

GRADE 10 MEDIA TECHNOLOGY

MARKING SCHEME / ANSWERS

SECTION A 30 MARKS

1:

a) Meaning of media content
Media content refers to information, messages, ideas or materials created and communicated to an audience through a media platform. **(1)**

b) Characteristics of effective media content

Any three:

- Clear and understandable.
- Accurate and factual.
- Relevant to the target audience.
- Engaging/interesting.
- Appropriate to the purpose.
- Creative.
- Well organised.
- Ethical and responsible.

3 × 1 = 3 marks

c) Media content used to educate learners

Any two:

- Educational videos.
- Podcasts/audio lessons.
- Digital presentations.
- Educational photographs/infographics.
- E-books.
- Educational television programmes.
- Online tutorials.
- Documentaries.

2 × 1 = 2 marks

2:

a) Three major media components

Accept:

i. **Text (1)**

ii. **Images/graphics (1)**

iii. **Audio/video (1)**

Other appropriate media components such as animation may be accepted where correctly explained.

b) Importance of combining different media components

- It makes content more engaging and easier to understand by presenting information in different forms. **(1)**

c) Example of a multimedia production

Any one:

- Educational presentation containing text, images, sound and video.
- Interactive website.
- Multimedia advertisement.
- Digital documentary.
- Educational video with graphics and narration.

(1)

3:

a) Information to establish before production

Any two:

- Purpose/objective of the video.
- Target audience.
- Main message.
- Content/topic.
- Duration.
- Location.
- Available resources.
- Production schedule.
- Budget.
- Required personnel/equipment.

2 × 1 = 2 marks

b) Importance of planning

Any three explained points:

1. **Saves time** – Activities are organised before production begins. **(1)**
2. **Controls resources/costs** – Equipment, personnel and finances can be planned properly. **(1)**
3. **Improves quality** – Proper preparation helps producers achieve the intended message and production standards. **(1)**

Other acceptable points:

- Reduces errors.
- Ensures appropriate equipment is available.
- Clarifies roles and responsibilities.
- Helps meet deadlines.
- Identifies potential problems early.

3 × 1 = 3 marks

4:

a) Safety precautions

Any two:

- Handle equipment carefully.
- Keep electrical equipment away from water.
- Switch off equipment before connecting/disconnecting cables where appropriate.
- Avoid overloading electrical sockets.
- Store equipment safely after use.
- Use equipment according to manufacturer's instructions.
- Keep cables properly arranged to prevent tripping.
- Do not operate damaged equipment.

2 × 1 = 2 marks

b) Equipment maintenance

Any two:

- Clean equipment regularly.
- Store equipment in appropriate cases.
- Keep equipment dry and dust-free.
- Charge/store batteries appropriately.
- Inspect cables regularly.
- Carry out regular servicing.
- Protect lenses with caps.
- Keep equipment away from excessive heat/moisture.

2 × 1 = 2 marks

5:

a) Target audience

The **target audience** is the specific group of people for whom a media message or production is intended. **(1)**

b) Factors influencing choice of language

Any two:

- Age of audience.
- Education level.
- Cultural background.
- Language proficiency.
- Purpose of the media content.
- Location of audience.
- Nature of the subject.
- Formality required.

2 × 1 = 2 marks

c) Importance of understanding the target audience

Any two explained:

1. **Helps select appropriate language and presentation style** so that the audience can understand the message. **(1)**
2. **Makes content more relevant and engaging** to the intended audience. **(1)**

Other acceptable answers:

- Helps select the appropriate media platform.
- Helps determine suitable images and sounds.
- Improves communication effectiveness.
- Helps meet audience needs.
- Can increase audience participation.

2 × 1 = 2 marks

6:

a) Benefits of social media distribution

Any two:

- Reaches a large audience quickly.
- Allows rapid sharing.
- Enables audience interaction and feedback.
- Relatively inexpensive to distribute.
- Allows multimedia content.
- Can reach audiences beyond geographical boundaries.
- Content can be updated easily.

2 × 1 = 2 marks

b) Danger of sharing unverified content

Any one:

- Spreads misinformation/disinformation.
- Can damage someone's reputation.
- May cause fear or confusion.
- Can lead to conflict.
- May result in legal or ethical consequences.

(1 mark)

c) Ways of verifying information

Any two:

- Check reliable/authoritative sources.
- Compare information from several credible sources.
- Check the original source of the information.
- Verify the date and context.
- Consult recognised experts or official institutions.
- Check whether photographs/videos have been manipulated or taken out of context.

2 × 1 = 2 marks

7:

a) Identification [5 marks]

Based on Figure 1:

A. **Viewfinder (1)**

B. **LCD screen/display (1)**

C. **Lens (1)**

D. **Control/button (1)**

E. **Microphone (1)**

Note: Where the learner identifies D more specifically as a recording control, shutter/record button or camera control, award the mark if appropriate to the indicated position.

b) Functions

i. Viewfinder
Used to view and frame the subject/scene being captured. **(1)**

ii. Lens
Collects and focuses light to form an image on the camera sensor. **(1)**

iii. Microphone
Captures sound/audio during recording. **(1)**

c) Factors when selecting a camera

Any two:

- Image/video quality or resolution.
- Sensor quality.
- Lens compatibility.
- Zoom capability.
- Low-light performance.
- Storage capacity.
- Battery life.
- Portability.
- Cost/budget.
- Recording features.
- Audio inputs.
- Intended purpose of production.

2 × 1 = 2 marks

8:

a) Four principles/techniques of composition

Any four:

- Rule of thirds.
- Leading lines.
- Balance.
- Symmetry.
- Framing.
- Depth.
- Perspective.
- Pattern/repetition.
- Negative space.
- Proper background selection.
- Appropriate point of view.

4 × 1 = 4 marks

b) Explanation

i. Rule of thirds

Divides the image into a grid of nine sections and places important subjects along the lines or at their intersections to create a balanced and visually appealing composition. **(2)**

ii. Leading lines

Uses lines within the scene to guide the viewer's eyes towards the main subject or through the photograph. **(2)**

c) Causes of poor composition

Any two:

- Distracting background.
- Poor framing.
- Subject placed awkwardly.
- Excessive empty space.
- Poor balance.
- Unwanted objects in the frame.
- Incorrect camera angle.
- Subject cut off unintentionally.
- Poor lighting affecting visibility.

2 × 1 = 2 marks

9:

a) Equipment identification [4 marks]

i. **Microphone (1)**

ii. **Audio mixer (1)**

iii. **Audio recorder (1)**

iv. **Headphones (1)**

b) Functions

i. Audio mixer

Combines, balances and controls audio signals from different sources. **(1)**

ii. Audio recorder

Records and stores audio signals for later playback/editing. **(1)**

iii. Headphones

Allow the sound operator to monitor the recorded/ incoming audio and detect problems such as noise or distortion. **(1)**

c) Causes of poor-quality sound

Any three:

- Background/environmental noise.
- Microphone placed too far from the speaker.
- Excessively high or low recording levels.
- Damaged microphone/cables.
- Wind noise.
- Electrical interference.
- Poor microphone positioning.
- Acoustic echo/reverberation.
- Failure to monitor sound.
- Distortion caused by excessive volume.

3 × 1 = 3 marks

10:

a) Editing operations

Any three:

- Trimming/cutting unwanted footage. **(1)**
- Adjusting audio levels. **(1)**
- Adding titles. **(1)**
- Arranging clips in sequence.
- Adding transitions.
- Colour correction.
- Adding background music.
- Removing unwanted audio.
- Adding captions.

3 × 1 = 3 marks

b) How the operations improve the production

i. Trimming

Removes unnecessary footage and makes the programme shorter, clearer and more focused. **(1)**

ii. Audio adjustment

Balances sound levels so that speech can be heard clearly and audio is not excessively loud or quiet. **(1)**

iii. Adding titles

Identifies the programme, speakers, topics or sections and provides viewers with useful information. **(1)**

c) Visual elements

Any two:

- Titles.
- Captions.
- Graphics.
- Logos.
- Transitions.
- Photographs.
- Animation.
- Lower-thirds.
- Charts/infographics.

2 × 1 = 2 marks

d) Output format considerations

Any two:

- Intended playback/distribution platform.
- Compatibility with devices/software.
- Required video quality/resolution.
- File size.
- Available storage/bandwidth.
- Compression requirements.
- Audio/video quality.

2 × 1 = 2 marks

11:

a) Services the learner could offer

Any three:

- Photography services.
- Video recording.
- Video editing.
- Graphic design.
- Poster/banner design.
- Social media content creation.
- Event coverage.
- Advertisement production.
- Audio recording.
- Logo design.
- Documentary production.

- Livestreaming services.

3 × 1 = 3 marks

b) Ways of marketing the enterprise

Any two explained:

1. **Social media marketing** – Display samples of work and services on suitable social media platforms to reach potential customers. **(1)**
2. **Direct/local promotion** – Visit schools and businesses, distribute promotional materials or use referrals to attract clients. **(1)**

Other acceptable answers:

- Website/online portfolio.
- Word-of-mouth referrals.
- Posters and brochures.
- Networking.
- Promotional offers.
- Community events.
- Partnerships with organisations.

2 × 1 = 2 marks

c) Factors when setting prices

Any three:

- Cost of equipment and materials.
- Time required for the job.
- Labour/personnel costs.
- Transport costs.
- Complexity of the assignment.
- Client requirements.
- Quality of service.
- Market/competitor prices.
- Business operating expenses.
- Desired profit.
- Editing requirements.
- Number of deliverables.

3 × 1 = 3 marks

d) Qualities of a successful media entrepreneur

Any two:

- Creativity.
- Innovation.
- Good communication skills.
- Technical competence.
- Business skills.
- Time management.
- Reliability.
- Adaptability.
- Problem-solving ability.

- Persistence.
- Professionalism.
- Ability to work with clients.

2 × 1 = 2 marks

GRADE 10 KENYA – METAL TECHNOLOGY

DECEMBER ASSIGNMENT 2026

MARKING SCHEME / ANSWERS

SECTION A – 40 MARKS

1

a) Two unsafe conditions – 2 marks

Any two, **1 mark each**:

1. Tools are scattered on workbenches.
2. Metal off-cuts are lying on the workshop floor.
3. Gas cylinder is placed close to a source of heat.

b) Two safety measures – 2 marks

Any two, **1 mark each**:

1. Store tools properly after use.
2. Remove and dispose of metal off-cuts safely.
3. Keep gas cylinders away from sources of heat.
4. Secure gas cylinders in an upright position.
5. Keep the workshop clean and well organised.

2

a) Identification – 1 mark

- **Safety goggles / protective goggles** – 1 mark.

b) Reasons for wearing PPE – 2 marks

Any two, **1 mark each**:

1. Protects the eyes from flying metal particles.
2. Protects against sparks and hot metal particles.
3. Reduces the risk of burns and injuries.
4. Protects against metal dust.
5. Reduces the severity of workshop accidents.

3

a) Appropriate tools

i. Measuring length accurately:

- **Steel rule** – 1 mark.

ii. Making a fine line on metal:

- **Scriber** – 1 mark.

iii. Checking whether surfaces are at right angles:

- **Try square** – 1 mark.

b) Reason for cleaning metal before marking out – 1 mark

- To remove dirt, grease, rust, scale or other contaminants so that **clear and accurate marking lines** can be produced.

4

a) Definitions

i. Hardness – 1 mark

- The ability of a metal to resist **scratching, indentation, wear or penetration**.

ii. Toughness – 1 mark

- The ability of a metal to **absorb energy and withstand shock or impact without breaking**.

b) Malleability and ductility – 2 marks

- **Malleability:** Ability of a metal to be hammered or rolled into thin sheets without breaking – **1 mark**.
- **Ductility:** Ability of a metal to be drawn into wires without breaking – **1 mark**.

5

a) Ferrous metals – 2 marks

Any two, **1 mark each**:

- Mild steel
- Cast iron
- Wrought iron
- High-carbon steel
- Stainless steel

b) Non-ferrous metals – 2 marks

Any two, **1 mark each**:

- Aluminium
- Copper
- Zinc
- Tin
- Brass
- Bronze
- Lead

6

Metals – 1 mark

- Materials, usually obtained from ores, which possess metallic properties such as strength, conductivity and ability to be shaped.

Metalwork – 1 mark

- The process of **cutting, shaping, forming, joining and finishing metals** to make useful products.

7

Any two, **1 mark each**:

- Metal fabricator
- Welder
- Fitter
- Machinist
- Sheet-metal worker
- Blacksmith
- Boilermaker
- Plumber
- Toolmaker
- Mechanical technician
- Automotive technician

8

1 mark each:

- **Personal safety**
- **Workshop/environmental safety**

Accept equivalent terminology such as:

- Safety of the person
- Safety of property/equipment/workshop

9

Any two, **1 mark each**:

1. Wear appropriate PPE.
2. Keep the workshop clean and tidy.
3. Use the correct tool for the correct job.
4. Do not run or engage in horseplay in the workshop.
5. Store tools properly after use.
6. Report damaged tools and unsafe conditions.
7. Do not use machines without authorisation or instruction.
8. Keep loose clothing and hair away from moving machinery.
9. Dispose of metal off-cuts safely.

10

Explanation – 1 mark

- Cutting tools must be made from materials that are **hard enough to retain a sharp cutting edge and resist wear**.

Suitable metals/materials – 1 mark

Any two appropriate materials, depending on the intended cutting tool:

- **High-carbon steel**
- **High-speed steel (HSS)**
- **Tool steel**
- **Tungsten carbide**

Award **½ mark each** for two correctly named materials.

11

Any two valid differences, **1 mark each**:

1. **Steel is generally heavier than aluminium**, while aluminium is lightweight.
2. **Steel is stronger/harder than aluminium** in many common applications.
3. Steel is more susceptible to rusting than aluminium, which has good corrosion resistance.
4. Aluminium is generally easier to form than many steels.
5. Aluminium has a higher electrical conductivity than ordinary steel.
6. Steel is generally cheaper than aluminium.

12.

(a) Give the name of the tool and the material used for making it. (2 marks)

- **Odd-leg calipers** – 1 mark
- **High-carbon steel (HCS)** – 1 mark

(b) State two uses of the tool. (2 marks)

- Used for **marking lines parallel to a given datum edge** – 1 mark
- Used for **finding/locating the centre of a round bar** – 1 mark

13. (2 marks)

- The **cutting edge is hardened** to increase its hardness and resistance to **wear, cutting and denting** during metal cutting – 1 mark.
- The **struck end is tempered** to increase its toughness so that it can **absorb the shock of repeated hammer blows without cracking or breaking** – 1 mark.

14.

(a) Name the problem that the tool has, state its cause and explain how it can be corrected. (2 marks)

- **Problem:** Mushroomed head – ½ mark
- **Cause:** Repeated hammering causes the metal at the struck end to spread/build up – ½ mark
- **Correction:** Grind/file off the mushroomed portion and dress/chamfer the head properly – 1 mark

15.

(a) Give the name of the tool and state its use. (2 marks)

- **Tool:** Countersink bit – 1 mark
- **Use:** Used for producing a **conical recess at the mouth of a drilled hole**, allowing a countersunk screw head to sit flush with the surface – 1 mark

b) Reasons for notching sheet-metal edges – 2 marks

Any two, **1 mark each**:

1. To allow the sheet to be folded or bent accurately.
2. To prevent overlapping material from interfering with the fold.
3. To enable corners to be formed neatly.
4. To reduce excess material at corners.
5. To prevent wrinkling or distortion during folding.
6. To facilitate joining of sheet-metal parts.

SECTION B – 50 MARKS

16

The learner is required to draw the isometric view of the block from the given orthographic views, taking **X as the lowest point**, and show three main dimensions.

Suggested marking allocation

1. Construction/interpretation – 3 marks

- Correct interpretation of the orthographic views – **1 mark**
- Correct location of X as the lowest point – **1 mark**
- Correct transfer of major dimensions – **1 mark**

2. Isometric construction – 6 marks

- Correct isometric axes – **1 mark**
- Correct overall length – **1 mark**
- Correct overall width/depth – **1 mark**
- Correct overall height – **1 mark**
- Correct shape/features – **2 marks**

3. Accuracy and line work – 3 marks

- Correct visible outlines – **1 mark**
- Correct positioning/proportion – **1 mark**
- Neat and accurate drawing – **1 mark**

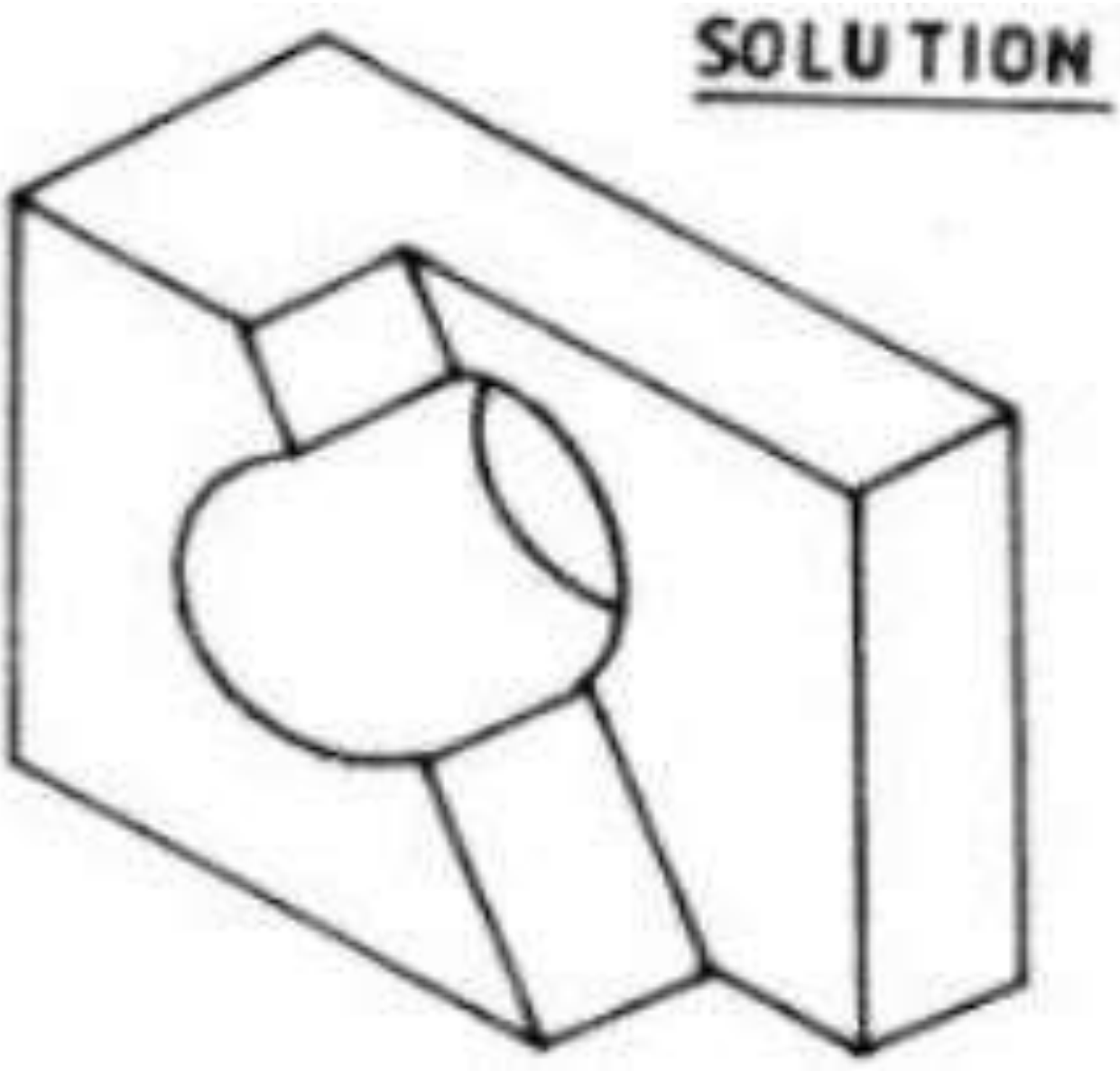
4. Dimensions – 3 marks

Three main dimensions correctly shown:

- First dimension – **1 mark**
- Second dimension – **1 mark**
- Third dimension – **1 mark**

TOTAL: 15 MARKS

Award drawing marks progressively. A learner who demonstrates correct construction but makes a minor measurement error should retain the marks for the correct construction principles.



17

a) Suitable tools – 4 marks

i. Holding the workpiece firmly:

- **Bench vice** – 1 mark.

ii. Cutting the metal:

- **Hacksaw** – 1 mark.

iii. Removing small amounts of metal:

- **File** – 1 mark.

iv. Checking a right angle:

- **Try square** – 1 mark.

b) Factors when selecting a file – 2 marks

Any two, **1 mark each**:

1. **Type/shape of file** – selected according to the shape of the surface being worked.
2. **Coarseness/cut** – rough files remove metal quickly; fine files give a smoother finish.
3. **Length/size** – should be suitable for the size of the workpiece.
4. **Required finish** – a finer file is selected for a smooth finish.
5. **Material being filed** – the file should be appropriate for the metal.

c) Hacksaw safety precautions – 2 marks

Any two, **1 mark each**:

1. Secure the workpiece firmly in a vice.
2. Wear safety goggles.
3. Use a suitable blade.
4. Ensure the blade is correctly tensioned.
5. Keep fingers away from the cutting path.
6. Do not use a damaged blade.
7. Use controlled cutting strokes.

d) Maintenance of hand tools – 2 marks

Any two, **1 mark each**:

1. Clean tools after use.
2. Store tools in their proper places.
3. Oil metal surfaces to prevent rust.
4. Keep cutting edges protected.
5. Repair or replace damaged tools.
6. Keep tools dry.

18

a) Suitable metals – 4 marks

i. School gate:

- **Mild steel** – 1 mark.

ii. Electrical connecting wire:

- **Copper** – 1 mark.

iii. Lightweight sheet-metal container:

- **Aluminium** – 1 mark.

iv. Corrosion-resistant component:

- **Stainless steel** – 1 mark.

Accept aluminium for iv where appropriately justified.

b) Properties of mild steel – 2 marks

Any two, **1 mark each**:

- Strong
- Tough
- Ductile
- Easily welded
- Easily machined
- Easily formed
- Relatively inexpensive
- Readily available

c) Advantages of aluminium in sheet-metal work – 2 marks

Any two, **1 mark each**:

- Lightweight
- Good corrosion resistance
- Easy to form
- Good appearance
- Good thermal conductivity
- Recyclable
- Good strength-to-weight ratio

d) Factors influencing choice of metal – 2 marks

Any two, **1 mark each**:

- Strength required
- Cost
- Availability
- Corrosion resistance
- Weight
- Hardness
- Ductility
- Malleability
- Intended use
- Ease of fabrication
- Appearance
- Electrical/thermal conductivity

19

a) Type of pictorial drawing – 1 mark

- **Oblique drawing** – 1 mark.

b) Characteristics – 2 marks

Any two, **1 mark each**:

1. The front face is normally drawn in its true shape and size.
2. Receding lines are drawn at an angle, commonly 45°.
3. Parallel lines remain parallel.
4. Depth is represented by receding lines.
5. It gives a three-dimensional appearance.

c) Purpose of scale – 2 marks

1 mark each:

1. To represent an object larger or smaller than its actual size while maintaining its proportions.
2. To enable objects that are too large or too small to be conveniently represented on a drawing sheet.

d) Drawing instruments – 3 marks

Any three, **1 mark each**:

- Drawing board
- T-square
- Set square
- Scale rule
- Compass
- Protractor
- Ruler
- Pencil
- Drawing instrument set

e) Qualities of a good technical drawing – 2 marks

Any two, **1 mark each**:

- Accurate
- Neat
- Clear
- Properly dimensioned
- Correctly scaled
- Well proportioned
- Uses standard conventions
- Correct line work
- Legible

20

a) Identification of X, Y and Z – 3 marks

The actual three joint diagrams are not visible in the supplied text. **Use the diagrams in the printed paper to determine the exact identification.**

If the intended diagrams correspond to the common three sheet-metal joints:

- **X – Butt joint** – 1 mark
- **Y – Lap joint** – 1 mark
- **Z – Seam joint** – 1 mark

b) Methods of joining sheet metal – 3 marks

Any three, **1 mark each**:

- Riveting
- Soldering
- Brazing
- Welding
- Screwing/bolting
- Seaming/folding

c) Production of a riveted joint – 3 marks

Award **1 mark for each correctly described stage**:

1. Mark out the position of the joint and rivet holes on the two sheets.
2. Place/align the sheets and drill or punch the rivet holes through them.
3. Insert the rivet through the holes and form the rivet head using suitable riveting tools so that the sheets are firmly joined.

d) Safety precaution when drilling sheet metal – 1 mark

Any one:

- Wear safety goggles.
- Secure the workpiece firmly.
- Do not hold the workpiece by hand while drilling.
- Use the correct drill bit.
- Keep loose clothing and hair away from rotating parts.
- Remove swarf using a brush, not bare hands.

21

a) Four manufacturing operations – 4 marks

Any four, **1 mark each**:

1. Measuring
2. Marking out
3. Cutting
4. Filing/deburring
5. Bending
6. Folding
7. Seaming
8. Riveting
9. Soldering
10. Finishing

b) Importance of marking out – 2 marks

1 mark each:

1. It establishes the correct **dimensions and shape** before cutting.
2. It reduces errors, material wastage and inaccurate cutting.

c) Methods of joining dustpan parts – 2 marks

Any two, **1 mark each**:

- Riveting
- Soldering
- Brazing
- Welding
- Screwing/bolting
- Seaming

d) Evaluation of completed dustpan – 2 marks

Any two, **1 mark each**:

1. Check that dimensions conform to the design.
2. Check that joints are strong and secure.
3. Check that all sharp edges have been removed.
4. Test whether the dustpan performs its intended function.
5. Inspect the surface finish.
6. Check overall appearance and workmanship.
7. Check strength and stability.

GRADE 10 MUSIC AND DANCE

MARKING SCHEME / ANSWERS

SECTION A

1.

a) Rhythm is the arrangement of **sounds and silences of different durations within a musical passage**.
(2 marks)

b)

- A **beat** is a regular pulse underlying a piece of music.
- **Rhythm** is the pattern formed by arranging notes and rests of different durations against the beat.
  (2 marks)

c) Any two compound time signatures:

- **6/8**
- **9/8**
- **12/8**

(2 marks)

2

a) Melody is an **organised sequence of musical notes or pitches that forms a recognisable musical line**.
(1 mark)

b) Major-scale pattern:

Tone – Tone – Semitone – Tone – Tone – Tone – Semitone

or

T – T – S – T – T – T – S

(2 marks)

c) G major:

G – A – B – C – D – E – F♯ – G

(2 marks)

3.

Original melody:

C – D – E – G – F – E – D – C

a) One tone higher:

D – E – F♯ – A – G – F♯ – E – D

(2 marks)

b) D major.
(1 mark)

c) Any one:

- To suit the singer's vocal range.
- To suit the range of an instrument.
- To make a piece easier to perform.
- To accommodate different instruments.
- To change the pitch level of a composition.

(1 mark)

4.

a) Any two:

- Natural word accent/stress.
- Meaning of the words.
- Number of syllables.
- Rhythm of the text.
- Pronunciation/diction.
- Vocal range.
- Appropriate melodic movement.
- Mood of the text.

(2 marks)

b) The meaning of the text influences the melody by determining its **mood, melodic direction, rhythm, dynamics and expressive character**. For example, joyful words may be set to an energetic and lively melody, while sad words may use a slower or more subdued melody.
(2 marks)

5.

a) Harmony is the **combination of two or more different pitches sounded simultaneously to produce a musical effect**.
(2 marks)

b) Two-part harmony is the combination of **two independent but related melodic lines performed simultaneously**.
(1 mark)

c) Any two:

- It should blend well with the melody.
- It should have appropriate intervals.
- It should maintain an independent melodic line.
- It should avoid undesirable dissonances.

- It should have a suitable melodic contour.
- It should maintain good voice leading.
- It should support rather than obscure the main melody.

(2 marks)

6.

a) Any one correct example:

- **Sibelius**
- **MuseScore**
- **Finale**
- **Dorico**

(1 mark)

b) Any two:

- Enables accurate notation.
- Allows easy editing of musical scores.
- Allows playback of compositions.
- Makes transposition easier.
- Allows scores to be printed.
- Facilitates arrangement and composition.
- Allows music to be digitally stored and shared.

(2 marks)

7.

a) A dance composition is an **organised arrangement of movements, patterns and sequences to create a complete dance performance**.
(1 mark)

b) Any two:

- Theme/message.
- Space or performance venue.
- Number of dancers.
- Music/accompaniment.
- Costumes.
- Props.
- Choreography.
- Safety.
- Audience.
- Available resources.

(2 marks)

SECTION B

8.

a) Definition of a folk song

A folk song is a **traditional song associated with a particular community or culture, usually transmitted from one generation to another, often orally**.
(2 marks)

b) Functions of Kenyan folk songs

Any three:

1. **Entertainment**
2. **Education**
3. **Preservation of cultural heritage**
4. **Socialisation**
5. **Communication**
6. **Ceremonial purposes**
7. **Religious/spiritual purposes**
8. **Work accompaniment**
9. **Historical preservation**
10. **Passing cultural values from one generation to another**

(3 marks)

c) Importance of research before performing another community's folk song

Any two:

1. It helps performers understand the **cultural meaning and purpose** of the song.
2. It promotes **respect for the community's traditions**.
3. It prevents inappropriate use of cultural material.
4. It enables performers to learn the correct language, movements and performance practices.
5. It helps preserve the authenticity of the performance.

(2 marks)

d) Features of Kenyan folk-song performances

Any three:

- Call and response.
- Repetition.
- Group singing.
- Solo singing.
- Use of indigenous instruments.
- Dance or coordinated movement.
- Audience participation.
- Oral transmission.
- Use of local language.
- Improvisation.
- Connection to particular social occasions.
- Percussive accompaniment.

(3 marks)

9.

a) Vocal solo

A vocal solo is a **song performed by one singer as the principal vocalist, either with instrumental accompaniment or without accompaniment**.
(2 marks)

b) Technical skills required by a solo singer

Any three:

1. **Good breath control**
2. **Accurate pitch**
3. **Clear diction**
4. **Good vocal projection**
5. **Proper posture**
6. **Good tone production**
7. **Effective phrasing**
8. **Appropriate dynamics**
9. **Good interpretation**
10. **Vocal flexibility**

(3 marks)

c) Importance of breath control

Breath control enables a singer to **sustain notes and phrases, maintain steady tone and pitch, control dynamics and sing comfortably without unnecessary strain**.
(2 marks)

10.

a) Instrument A

The illustration represents a **membranophone** because sound is produced by the vibration of a stretched membrane/skin.

Answer: Membranophone
(1 mark)

b) Instrument B

Accept a suitable identification based on the learner's interpretation of the simplified illustration. If representing a hollow resonating body producing sound through its own vibration, award:

Idiophone
(1 mark)

c) Instrument C

If representing a stringed instrument:

Chordophone
(1 mark)

d) Classifications

i. Idiophones

Instruments in which **the body of the instrument itself vibrates to produce sound**.

Examples include rattles, bells and xylophone-type instruments.

(1 mark)

ii. Membranophones

Instruments in which sound is produced by the **vibration of a stretched membrane**.

Example: drum.

(1 mark)

iii. Chordophones

Instruments in which sound is produced by the **vibration of stretched strings**.

Examples: lyre, fiddle and other stringed instruments.

(1 mark)

iv. Aerophones

Instruments in which sound is produced mainly by the **vibration of a column of air**.

Examples: horns, flutes and whistles.

(1 mark)

e) Example

Any correct Kenyan indigenous instrument belonging to one of the classifications, for example:

- **Membranophone:** drum
- **Chordophone:** nyatiti
- **Idiophone:** kayamba
- **Aerophone:** horn

(1 mark)

11.

Because the diagrams in the examination are simplified, accept any **correct instrument identification that reasonably matches the learner's interpretation**.

a) Possible identifications

i. Instrument X

Accept an appropriate string instrument such as:

- Violin
- Cello

(1 mark)

ii. Instrument Y

- Piano

(1 mark)

iii. Instrument Z

Guitar

(1 mark)

b) Western instrument families

Any two:

- **Strings**
- **Woodwind**
- **Brass**
- **Percussion**

(2 marks)

c) Factors determining tone quality

Any two:

- Material from which the instrument is made.
- Shape and size of the instrument.
- Method of playing.
- Resonating chamber.
- Type of vibrating source.
- Construction of the instrument.
- Technique of the performer.

(2 marks)

12.

a) Contemporary dance

Contemporary dance is a **modern dance form that uses creative and expressive body movements, often drawing from different dance traditions and contemporary experiences to communicate ideas, emotions or themes**.
(2 marks)

b) Movement elements

Any three:

- **Body**
- **Space**
- **Time**
- **Energy**
- **Movement**
- **Direction**
- **Levels**
- **Pathways**
- **Dynamics**

(3 marks)

c) Incorporating Kenyan culture

Any one well-explained response:

- Incorporating **Kenyan traditional movements** into modern choreography.
- Using movements inspired by Kenyan communities.
- Using Kenyan music/rhythms as accompaniment.
- Incorporating appropriate Kenyan costumes.
- Presenting themes drawn from Kenyan society and culture.

(1 mark)

d) Safety measures

Any two:

- Warm up before dancing.
- Use an appropriate performance/rehearsal space.
- Wear suitable clothing and footwear.
- Keep the floor free from hazards.
- Maintain adequate spacing between dancers.
- Use props safely.
- Avoid movements beyond the dancer's ability.
- Stay hydrated and take appropriate rest periods.

(2 marks)

13.

a) Period associated with Gregorian chant

Medieval Period
(1 mark)

b) Characteristics of Medieval music

Any two:

- Gregorian chant was prominent.
- Much music was associated with the Christian Church.
- Sacred vocal music was important.
- Music used modes.
- Early forms of polyphony developed.
- Much early music was monophonic.
- Musical notation developed during the period.

(2 marks)

c) Characteristics of Renaissance music

Any two:

- Increased development of **polyphony**.
- Greater use of **imitation**.
- Greater independence of melodic lines.
- Development of secular vocal music.
- Greater emphasis on vocal harmony.
- Development/popularity of the madrigal.
- Increased use of word painting.

(2 marks)

14.

a) Music and dance promote social cohesion

Any two well-explained responses:

1. Promoting unity:
People participate in music and dance collectively, creating a sense of belonging and togetherness.

2. Preserving shared culture:
Music and dance bring people together around common traditions, values and cultural practices.

Other acceptable responses:

- Encourage social interaction.
- Provide opportunities for communal celebration.
- Promote cooperation.
- Encourage cultural exchange.
- Help resolve social differences.
- Strengthen community identity.

(2 marks)

b) Effects of technology on music production and distribution

Any two:

- Digital recording has made music production faster and more accessible.
- Music can be edited using digital audio software.
- Musicians can distribute music through online platforms.

- Social media enables artists to reach wider audiences.
- Digital storage makes archiving easier.
- Music can be shared globally through the internet.
- Digital notation software assists composition and arrangement.
- Online platforms facilitate music promotion.

(2 marks)

c) Ethical consideration

Any one:

- Obtain **permission/consent** before recording or sharing the performance.
- Respect the cultural ownership and intellectual property of the community.
- Give appropriate credit to the performers/community.
- Avoid presenting cultural material in a disrespectful or misleading way.
- Observe privacy and agreed restrictions on recording or publication.

(1 mark)

MARKING SCHEME / ANSWERS

SECTION A: STRUCTURED QUESTIONS

30 MARKS

QUESTION 1 – FOOTBALL (3 marks)

a) Two ways of controlling a football:

- Using the inside of the foot. ✓
- Using the sole of the foot. ✓
- Using the instep/laces. ✓
- Using the thigh. ✓
- Using the chest. ✓
- Using the head. ✓

Any two = 2 marks

b) Ball control enables a player to retain possession and prepare effectively for the next action such as passing, dribbling or shooting. ✓

1 mark

QUESTION 2 – FOOTBALL SKILL (3 marks)

a) Trapping/controlling the ball with the foot. ✓

1 mark

b) Technical points:

- Keep the eyes on the ball. ✓
- Position the supporting foot appropriately. ✓
- Withdraw/relax the receiving foot slightly on contact to cushion the ball. ✓
- Maintain balance and control of the body. ✓
- Direct the ball into a playable position. ✓

Any two = 2 marks

QUESTION 3 – NETBALL (3 marks)

a) Pivoting is a movement in which a player keeps one foot planted while turning the body on that foot to change direction or find a passing option. ✓

1 mark

b) Uses of pivoting:

- To evade an opponent. ✓

- To create space. ✓
- To find a teammate to pass to. ✓
- To change the direction of play. ✓
- To protect the ball from an opponent. ✓

Any two = 2 marks

QUESTION 4 – VOLLEYBALL (3 marks)

a) Spike/smash/attacking hit. ✓

1 mark

b) Technical points:

- Take an appropriate approach towards the ball. ✓
- Jump vertically/forward with good coordination. ✓
- Strike the ball with an open hand at the appropriate height. ✓
- Contact the ball above the net. ✓
- Direct the ball into the opponent's court. ✓
- Land safely with balanced knees. ✓

Any two = 2 marks

QUESTION 5– HANDBALL (3 marks)

a) Any one:

- Throw-off. ✓
- Free throw. ✓
- Throw-in. ✓
- Goalkeeper throw. ✓
- 7-metre throw. ✓

1 mark

b) Factors determining accuracy:

- Correct body/arm positioning. ✓
- Correct direction and target selection. ✓
- Appropriate force applied. ✓
- Proper timing of release. ✓
- Good concentration. ✓

Any two = 2 marks

QUESTION 6 – BASKETBALL (3 marks)

a) Dribbling is the controlled bouncing of the basketball continuously with one hand while moving around the court. ✓

1 mark

b) Purposes of dribbling:

- To move with the ball around the court. ✓
- To evade an opponent. ✓
- To create space. ✓
- To advance the ball towards the opponent's basket. ✓
- To improve a passing or shooting opportunity. ✓

Any two = 2 marks

QUESTION 7 – ATHLETICS: SPRINTS (3 marks)

a) race clock sports timer. ✓

1 mark

b) Advantages of starting blocks:

- Provide firm support during the start. ✓
- Enable the athlete to generate greater force when pushing off. ✓
- Improve acceleration from the starting position. ✓
- Help the athlete achieve an efficient starting posture. ✓

Any two = 2 marks

QUESTION 8 – LONG JUMP (3 marks)

Approach/run-up considerations:

- Maintain a controlled and progressively increasing speed. ✓
- Use consistent strides. ✓
- Maintain good body posture and balance. ✓
- Accurately approach the take-off board. ✓
- Coordinate arm and leg movements. ✓
- Maintain concentration on the take-off point. ✓

Any three = 3 marks

QUESTION 9 – JAVELIN (3 marks)

a) The javelin should be carried with the point facing forward/upwards and held securely at the grip. ✓

1 mark

b) Reasons for safety procedures:

- Javelin is a sharp/heavy implement that can cause serious injury. ✓
- Accidental throwing can injure athletes or spectators. ✓
- The implement travels at high speed. ✓
- Proper procedures prevent collisions during retrieval and throwing. ✓

Any two = 2 marks

QUESTION 10 – SHOT PUT (3 marks)

a) Any one:

- Glide technique. ✓
- Rotational/spin technique. ✓

1 mark

b) Technical points:

- Hold the shot against the neck/base of the neck. ✓
- Keep the elbow elevated. ✓
- Push rather than throw the shot. ✓
- Transfer body weight from the rear to the front. ✓
- Extend the throwing arm powerfully. ✓
- Maintain balance after release. ✓

Any two = 2 marks

SECTION B: 50 MARKS

QUESTION 11 – FOOTBALL

10 MARKS

a) Four stages of performing an inside-foot pass

4 marks

1. Preparation/approach:
Move towards the ball and position the body appropriately while identifying the intended target. ✓

2. Supporting foot:
Place the non-kicking foot beside the ball, pointing generally towards the intended target. ✓

3. Contact:
Use the inside surface of the kicking foot to strike through the centre of the ball. ✓

4. Follow-through:
Continue the kicking leg towards the target while maintaining balance and preparing for the next action. ✓

4 × 1 = 4 marks

b) Ways of creating space during an attacking situation

3 marks

Any three:

- Move away from the defender into open space. ✓
- Make a quick change of direction. ✓

- Use a change of pace to lose the defender. ✓
- Make a supporting run behind or ahead of the ball carrier. ✓
- Use feints to deceive the defender. ✓
- Spread out to make the playing area wider. ✓

3 × 1 = 3 marks

c) Responsibilities of an outfield defender/player

3 marks

Any three:

- Mark opposing players. ✓
- Prevent opponents from progressing towards goal. ✓
- Intercept or tackle safely to regain possession. ✓
- Cover teammates when necessary. ✓
- Maintain appropriate defensive positioning. ✓
- Communicate with teammates. ✓

3 × 1 = 3 marks

TOTAL = 10 MARKS

QUESTION 12 – NETBALL AND VOLLEYBALL

10 MARKS

(a) NETBALL

i) Identify the movement

Pivoting. ✓

1 mark

ii) Points to observe during pivoting

3 marks

- Keep one foot firmly planted as the pivot foot. ✓
- Maintain balance while turning. ✓
- Keep the body controlled and avoid dragging/lifting the pivot foot illegally. ✓
- Scan for a teammate or passing opportunity. ✓
- Protect the ball from the opponent. ✓

Any three = 3 marks

iii) Advantages of effective footwork

2 marks

- Helps the player maintain balance. ✓
- Enables quick changes of direction. ✓
- Helps evade opponents. ✓
- Creates space for passing or receiving. ✓
- Reduces unnecessary loss of possession. ✓

Any two = 2 marks

(b) VOLLEYBALL

i) Skill used to send the ball forcefully over the net

Spike/smash. ✓

1 mark

ii) Technical points in executing a spike

3 marks

- Make an appropriate approach towards the ball. ✓
- Coordinate the arm swing with the jump. ✓
- Jump and reach high towards the ball. ✓
- Strike the ball with an open hand at the appropriate point. ✓
- Direct the ball forcefully into the opponent's court. ✓
- Land safely and maintain balance. ✓

Any three = 3 marks

TOTAL = 10 MARKS

QUESTION 13 – HANDBALL AND BASKETBALL

10 MARKS

(a) HANDBALL

i) Ways of evading a defender

3 marks

Any three:

- **Sidestep:** Move quickly sideways around the defender. ✓
- **Feint:** Use a deceptive body movement to make the defender move in the wrong direction. ✓
- **Change of direction:** Suddenly change direction to escape the defender. ✓
- **Change of pace:** Accelerate or decelerate suddenly. ✓
- **Body dodge:** Move the upper body to deceive the defender before moving past. ✓

3 × 1 = 3 marks

ii) Qualities of an effective goalkeeper

2 marks

Any two:

- Quick reaction time. ✓
- Good agility. ✓
- Courage/confidence. ✓
- Good concentration. ✓
- Good anticipation. ✓
- Effective communication. ✓
- Flexibility. ✓

Any two = 2 marks

(b) BASKETBALL

i) Techniques for effective dribbling

3 marks

- Keep the ball close to the body and under control. ✓
- Use the fingertips rather than the palm to control the ball. ✓
- Keep the knees slightly bent and maintain a low centre of gravity. ✓
- Keep the head up to observe teammates and opponents. ✓
- Use the appropriate hand and change hands when necessary. ✓
- Protect the ball from defenders using the body. ✓

Any three = 3 marks

ii) Why unnecessary dribbling should be avoided

2 marks

- It may lead to loss of possession. ✓
- It can slow down attacking play. ✓
- A teammate may be in a better position to receive a pass. ✓
- Excessive dribbling allows defenders to regroup. ✓
- It can reduce opportunities for effective passing or shooting. ✓

Any two = 2 marks

TOTAL = 10 MARKS

QUESTION 14 – ATHLETICS

10 MARKS

(a) SPRINTS

i) Identify A, B and C

3 marks

- **A – On your marks. ✓**
- **B – Set. ✓**
- **C – Acceleration/drive phase after the starting signal. ✓**

3 marks

ii) Contribution of arm action

2 marks

- Helps maintain balance and coordination. ✓
- Assists in generating forward momentum. ✓
- Complements the movement of the legs. ✓
- Helps maintain an efficient sprinting rhythm. ✓

Any two = 2 marks

(b) LONG JUMP

i) Four phases

2 marks

1. Approach/run-up. ✓
2. Take-off. ✓
3. Flight. ✓
4. Landing. ✓

2 marks

ii) Flight technique

1 mark

Any correct technique:

- Maintain body control while in the air and prepare the legs for landing. ✓
- Use an appropriate flight technique such as the hang or hitch-kick. ✓
- Keep the body balanced and extend the legs forward in preparation for landing. ✓

1 mark

iii) Safety measures

2 marks

- Ensure the landing pit contains suitable, level and soft sand. ✓
- Ensure the runway is dry and free from obstacles. ✓

- Ensure the landing area is clear before each jump. ✓
- Learners should wait for their turn and follow the teacher's instructions. ✓
- Avoid walking across the runway during jumping. ✓

Any two = 2 marks

TOTAL = 10 MARKS

QUESTION 15 – FIELD EVENTS, OPTIONAL SPORTS AND PHYSICAL FITNESS

10 MARKS

(a) FIELD EVENTS

i) Difference between javelin and shot put

2 marks

- **Javelin:** The implement is thrown overarm into the throwing sector. ✓
- **Shot put:** The shot is pushed/put from the neck using a powerful extending action rather than thrown. ✓

2 marks

ii) Factors affecting distance in throwing events

2 marks

Any two:

- Speed of the implement at release. ✓
- Angle of release. ✓
- Height of release. ✓
- Strength and power of the athlete. ✓
- Correct technique. ✓
- Effective transfer of body weight. ✓
- Coordination and timing. ✓

Any two = 2 marks

(b) OPTIONAL SPORTS

i) Three optional sports

3 marks

Any three:

- Hockey. ✓
- Swimming. ✓
- Softball. ✓
- Baseball. ✓
- Cricket. ✓

- Table tennis. ✓
- Tennis. ✓
- Badminton. ✓

Any three = 3 marks

ii) One basic skill

1 mark

Accept any correctly identified skill appropriate to the sport selected.

Examples:

- **Hockey:** dribbling, passing, hitting. ✓
- **Swimming:** kicking, floating, breathing, arm stroke. ✓
- **Softball:** batting, throwing, catching. ✓
- **Baseball:** batting, pitching, catching. ✓
- **Cricket:** batting, bowling, fielding. ✓
- **Table tennis:** serving, forehand drive, backhand drive. ✓
- **Tennis:** serving, forehand, backhand, volley. ✓
- **Badminton:** serving, clear, smash, drop shot. ✓

1 mark

(c) PHYSICAL FITNESS

Two benefits of regular physical activity

2 marks

Any two:

- Improves cardiovascular endurance. ✓
- Increases muscular strength and endurance. ✓
- Improves flexibility. ✓
- Improves coordination and agility. ✓
- Helps maintain healthy body weight. ✓
- Reduces the risk of lifestyle-related diseases. ✓
- Promotes mental and emotional well-being. ✓
- Improves overall physical fitness. ✓
- Promotes healthy social interaction. ✓

Any two = 2 marks

GRADE 10 PHYSICS

ANSWERS / MARKING SCHEME

SECTION A: 30 MARKS

1. Introduction to Physics (3 marks)

a)

Physics is a fundamental science because it studies the **basic laws and principles governing matter, energy, forces and their interactions**, which form the basis of many other sciences and technologies.
(1 mark)

b)

Any two:

- Physics and Mathematics — mathematics is used to express physical laws and perform calculations.
- Physics and Chemistry — physics explains energy changes, atomic structure and properties of matter.
- Physics and Biology — physics is applied in medical imaging, movement and biological processes.
- Physics and Geography — physics explains weather, climate, earthquakes and planetary processes.
- Physics and Engineering — engineering applies physical principles to design machines and structures.

(1 mark each = 2 marks)

2.

a)

$$P = \rho g h$$

$$P = 1000 \times 10 \times 4.5$$

$$\boxed{P = 45{,}000\,Pa}$$

(2 marks)

b)

Any one:

- Density of the liquid.
- Acceleration due to gravity.

(1 mark)

3.

Given:

$$A_1 = 0.015\,m^2$$

$$A_2 = 0.60\,m^2$$

$$F_1 = 250\,N$$

a)

$$P = \frac{F}{A}$$

$$P = \frac{250}{0.015}$$

$$\boxed{P = 16{,}666.7\,Pa}$$

(1 mark)

b)

Using Pascal's principle:

$$\frac{F_1}{A_1} = \frac{F_2}{A_2}$$

Therefore,

$$F_2 = \frac{F_1 A_2}{A_1}$$

$$F_2 = \frac{250 \times 0.60}{0.015}$$

$$F_2 = \frac{150}{0.015}$$

$$\boxed{F_2 = 10{,}000\,N}$$

(2 marks)

4.

Original length:

$$25\,cm$$

Final length:

$$33\,cm$$

a)

$$\text{Extension} = 33 - 25 = 8\,cm$$

$$8\,cm = 0.08\,m$$

$$\boxed{0.08\,m}$$

(1 mark)

b)

$$F = kx$$

$$k = \frac{F}{x}$$

$$k = \frac{40}{0.08}$$

$$\boxed{k = 500\,N/m}$$

(2 marks)

5.

a)

When the lid is placed in warm water, the **metal lid expands**. Since the lid expands slightly more than the glass, it becomes loose and can be removed more easily.

(2 marks)

b)

Water has its **maximum density at** $4°C$. Between $0°C$ and $4°C$, water contracts when heated.

(1 mark)

6.

a)

$$M = Fd$$

$$M = 30 \times 0.25$$

$$\boxed{M = 7.5\,Nm}$$

(1 mark)

b)

Any two:

- Increase the force applied.
- Increase the perpendicular distance from the pivot.

(2 marks)

7.

Given:

$$m = 200\,kg$$

$$h = 12\,m$$

$$t = 8\,s$$

a)

$$W = mgh$$

$$W = 200 \times 10 \times 12$$

$$\boxed{W = 24{,}000\,J}$$

(1 mark)

b)

$$P = \frac{W}{t}$$

$$P = \frac{24{,}000}{8}$$

$$\boxed{P = 3{,}000\,W}$$

(2 marks)

8.

a)

$$v = f\lambda$$

$$v = 25 \times 1.2$$

$$\boxed{v = 30\,m/s}$$

(2 marks)

b)

A **progressive wave** transfers energy from one place to another, while a **stationary wave** has fixed nodes and antinodes and does not transfer energy progressively along the medium.

(1 mark)

9.

Initial activity:

$$9600\ counts/min$$

Half-life:

$$5\ hours$$

Time:

$$15\ hours$$

Number of half-lives:

$$n = \frac{15}{5} = 3$$

Therefore:

After 5 hours:

$$9600 \div 2 = 4800$$

After 10 hours:

$$4800 \div 2 = 2400$$

After 15 hours:

$$2400 \div 2 = 1200$$

$$\boxed{1200\ counts/min}$$

(3 marks)

10.

Given:

$$V = 12\,V$$

$$R = 4\,\Omega$$

a)

$$I = \frac{V}{R}$$

$$I = \frac{12}{4}$$

$$\boxed{I = 3\,A}$$

(1 mark)

b)

Time:

$$5\,minutes = 5 \times 60 = 300\,s$$

Electrical energy:

$$E = VIt$$

$$E = 12 \times 3 \times 300$$

$$\boxed{E = 10{,}800\,J}$$

(2 marks)

SECTION B: 50 MARKS

11.

Given:

- Diameter of small piston = 4 cm

- Diameter of large piston = 40 cm
- Mass of vehicle = 1600 kg

a)

The hydraulic system operates according to **Pascal's principle**, which states that pressure applied to an enclosed liquid is transmitted equally and undiminished in all directions.

(1 mark)

b) Weight of vehicle

$$W = mg$$

$$W = 1600 \times 10$$

$$\boxed{W = 16{,}000\,N}$$

(1 mark)

c) Areas of the pistons

Small piston

Diameter:

$$4\,cm = 0.04\,m$$

Radius:

$$r = \frac{0.04}{2} = 0.02\,m$$

$$A = \pi r^2$$

$$A_1 = 3.14(0.02)^2$$

$$A_1 = 3.14 \times 0.0004$$

$$\boxed{A_1 = 0.001256\,m^2}$$

Large piston

Diameter:

$$40\,cm = 0.40\,m$$

Radius:

$$r = \frac{0.40}{2} = 0.20\,m$$

$$A_2 = 3.14(0.20)^2$$

$$A_2 = 3.14 \times 0.04$$

$$\boxed{A_2 = 0.1256\,m^2}$$

(3 marks)

d) Force on small piston

Using:

$$\frac{F_1}{A_1} = \frac{F_2}{A_2}$$

$$F_1 = \frac{F_2 A_1}{A_2}$$

$$F_1 = \frac{16{,}000 \times 0.001256}{0.1256}$$

Since:

$$\frac{0.001256}{0.1256} = 0.01$$

$$F_1 = 16{,}000 \times 0.01$$

$$\boxed{F_1 = 160\,N}$$

(3 marks)

e) Distance moved by large piston

For an ideal hydraulic system:

$$A_1 d_1 = A_2 d_2$$

Therefore:

$$d_2 = \frac{A_1 d_1}{A_2}$$

$$d_2 = \frac{0.001256 \times 0.80}{0.1256}$$

$$d_2 = 0.008\,m$$

$$\boxed{d_2 = 0.008\,m}$$

or

$$\boxed{d_2 = 8\,mm}$$

(2 marks)

12.

Given:

$$L = 2.5\,m$$

$$A = 2.0 \times 10^{-6}\,m^2$$

At $200\,N$:

$$x = 4.0\,mm$$

$$x = 0.004\,m$$

a) Hooke's law

Hooke's law states that **the extension of an elastic material is directly proportional to the applied force, provided the elastic limit is not exceeded.**

(1 mark)

b) Spring constant

Using the data:

$$F = kx$$

$$k = \frac{F}{x}$$

Using $200\,N$ and $0.004\,m$:

$$k = \frac{200}{0.004}$$

$$\boxed{k = 50{,}000\,N/m}$$

(2 marks)

c) Stress

$$\text{Stress} = \frac{F}{A}$$

$$= \frac{200}{2.0 \times 10^{-6}}$$

$$\boxed{\text{Stress} = 1.0 \times 10^{8}\,Pa}$$

(2 marks)

d) Strain

$$\text{Strain} = \frac{\text{extension}}{\text{original length}}$$

$$= \frac{0.004}{2.5}$$

$$\boxed{\text{Strain} = 1.6 \times 10^{-3}}$$

(2 marks)

e) Young's modulus

$$Y = \frac{\text{stress}}{\text{strain}}$$

$$Y = \frac{1.0 \times 10^{8}}{1.6 \times 10^{-3}}$$

$$Y = 0.625 \times 10^{11}$$

$$\boxed{Y = 6.25 \times 10^{10}\, Pa}$$

(2 marks)

f)

If the elastic limit is exceeded, the wire will undergo **permanent deformation** and will not return to its original length when the force is removed.

(1 mark)

13.

Given:

Beam length:

$$5.0\, m$$

Weight:

$$300\, N$$

Position of A:

$$0.5\, m$$

Position of B:

$$5.0 - 1.0 = 4.0\, m$$

Load:

$$800\, N$$

Load position:

$$1.5\, m$$

a) Conditions for equilibrium

8. The resultant force acting on the body must be zero. **(1 mark)**
9. The resultant moment about any point must be zero. **(1 mark)**

b) Distance of 800 N load from A

$$1.5 - 0.5$$

$$\boxed{1.0\, m}$$

(1 mark)

c) Distance of B from A

$$4.0 - 0.5$$

$$\boxed{3.5\, m}$$

(1 mark)

d) Centre of gravity

The beam is uniform, so its centre of gravity is at its midpoint.

Midpoint:

$$\frac{5.0}{2} = 2.5\,m$$

Distance from A:

$$2.5 - 0.5 = 2.0\,m$$

$$\boxed{2.0\,m}$$

(1 mark)

e) Reaction at B

Take moments about A.

Clockwise moment:

$$800 \times 1.0$$

Weight of beam acts $2.0\,m$ from A:

$$300 \times 2.0$$

Anticlockwise moment due to R_B:

$$R_B \times 3.5$$

Therefore:

$$R_B(3.5) = 800(1.0) + 300(2.0)$$

$$3.5R_B = 800 + 600$$

$$3.5R_B = 1400$$

$$R_B = \frac{1400}{3.5}$$

$$\boxed{R_B = 400\,N}$$

(3 marks)

f) Reaction at A

For vertical equilibrium:

$$R_A + R_B = 800 + 300$$

$$R_A + 400 = 1100$$

$$\boxed{R_A = 700\,N}$$

(2 marks)

14.

Given:

$$m = 750\,kg$$

$$h = 8\,m$$

$$E = 2500\,N$$

$$d_E = 32\,m$$

a) Weight

$$W = mg$$

$$W = 750 \times 10$$

$$\boxed{W = 7500\,N}$$

(1 mark)

b) Useful work

$$W = mgh$$

$$W = 750 \times 10 \times 8$$

$$\boxed{W = 60{,}000\,J}$$

(2 marks)

c) Work input

$$W = Fd$$

$$W = 2500 \times 32$$

$$\boxed{W = 80{,}000\,J}$$

(2 marks)

d) Efficiency

$$\text{Efficiency} = \frac{\text{useful output work}}{\text{input work}} \times 100$$

$$= \frac{60{,}000}{80{,}000} \times 100$$

$$= 0.75 \times 100$$

$$\boxed{75\%}$$

(2 marks)

e) Mechanical advantage

$$MA = \frac{\text{Load}}{\text{Effort}}$$

$$MA = \frac{7500}{2500}$$

$$\boxed{MA = 3}$$

(1 mark)

f) Velocity ratio

Distance moved by effort:

$$32\,m$$

Distance moved by load:

$$8\,m$$

$$VR = \frac{32}{8}$$

$$\boxed{VR = 4}$$

(1 mark)

g)

For a real machine, some energy is lost through **friction, heat, sound and deformation**.

Therefore:

$$\text{Efficiency} < 100\%$$

and generally:

$$MA < VR$$

(1 mark)

15.

Given:

$$E = 24\,V$$

$$r = 2\,\Omega$$

$$R = 10\,\Omega$$

Frequency:

$$f = 1.5 \times 10^8\,Hz$$

Speed of radio wave:

$$v = 3.0 \times 10^8\,m/s$$

Initial activity:

$$A_0 = 12{,}800\,Bq$$

Half-life:

$$3\,hours$$

Time:

$$12\,hours$$

a)

i) Total resistance

$$R_T = R + r$$

$$R_T = 10 + 2$$

$$\boxed{R_T = 12\,\Omega}$$

(1 mark)

ii) Current supplied

Using:

$$E = I(R + r)$$

$$I = \frac{E}{R + r}$$

$$I = \frac{24}{12}$$

$$\boxed{I = 2\,A}$$

(2 marks)

iii) Terminal potential difference

$$V = E - Ir$$

$$V = 24 - (2 \times 2)$$

$$V = 24 - 4$$

$$\boxed{V = 20\,V}$$

(1 mark)

b)

Using:

$$v = f\lambda$$

Therefore:

$$\lambda = \frac{v}{f}$$

$$\lambda = \frac{3.0 \times 10^8}{1.5 \times 10^8}$$

$$\lambda = 2$$

$$\boxed{\lambda = 2.0\,m}$$

(2 marks)

c)

Initial activity:

$$12{,}800\ Bq$$

Half-life:

$$3\ hours$$

Elapsed time:

$$12\ hours$$

Number of half-lives:

$$n = \frac{12}{3} = 4$$

Successive decay:

$$12{,}800 \rightarrow 6{,}400$$

$$\rightarrow 3{,}200$$

$$\rightarrow 1{,}600$$

$$\rightarrow 800$$

Therefore:

$$\boxed{800\ Bq}$$

(2 marks)

d)

i)

An increase in greenhouse gases such as carbon dioxide and methane causes more outgoing infrared radiation to be absorbed and re-radiated back towards Earth. This increases atmospheric warming and can contribute to **climate change/global warming**.

(1 mark)

ii)

Any one:

- Use solar, wind or other renewable energy.
- Improve energy efficiency.
- Reduce dependence on fossil fuels.
- Plant and protect forests.
- Use electric/public transport where appropriate.
- Reduce unnecessary burning of fuels.

(1 mark)

GRADE 10 – POWER MECHANICS

ANSWERS

SECTION A – 30 MARKS

1

a) Define Power Mechanics. (2 marks)

Power Mechanics is the study of the **principles, construction, operation, maintenance and repair of machines, engines and motor vehicles.**

Marking:

- Study of principles/construction/operation of machines or engines — **1 mark**
- Maintenance/repair/servicing of machines, engines or motor vehicles — **1 mark**

b) Two areas of application. (2 marks)

Any two:

1. Motor vehicle servicing and repair.
2. Agricultural machinery.
3. Construction machinery.
4. Transport industry.
5. Industrial machinery maintenance.
6. Automotive manufacturing.

1 mark each.

c) Two career opportunities. (2 marks)

Any two:

1. Motor vehicle mechanic/technician.
2. Automotive engineer.
3. Plant mechanic.
4. Automobile electrician.
5. Garage technician.
6. Machinery maintenance technician.
7. Motor vehicle inspector.

1 mark each.

2

a) Two important developments. (2 marks)

Any two:

1. Development of the internal combustion engine.

2. Development of the steam engine.
3. Development of pneumatic tyres.
4. Introduction of electric starting systems.
5. Development of fuel injection.
6. Development of electronic control systems.
7. Development of computer-controlled vehicle systems.

1 mark each.

b) Three benefits of technological development. (3 marks)

Any three:

1. **Improved safety** through airbags, ABS and electronic stability systems — **1 mark**
2. **Improved fuel efficiency** through improved engines and fuel-management systems — **1 mark**
3. **Reduced environmental pollution** through cleaner engines and emission-control systems — **1 mark**
4. Improved comfort.
5. Improved reliability.
6. Improved performance.
7. Reduced maintenance requirements.

3

a) Three general safety rules. (3 marks)

Any three:

1. Wear appropriate PPE.
2. Keep tools and equipment properly arranged.
3. Keep the workshop floor clean and dry.
4. Do not use damaged tools.
5. Follow correct operating procedures.
6. Do not work on a running machine unless required.
7. Disconnect power before servicing appropriate equipment.
8. Use the correct tool for the correct job.
9. Report accidents and dangerous conditions immediately.

1 mark each.

b) Two examples of PPE. (2 marks)

Any two:

- Safety goggles.
- Safety boots.
- Overalls/protective clothing.
- Protective gloves.
- Ear protection.
- Helmet where appropriate.

1 mark each.

4

a) Four contents of a first aid box. (2 marks)

Any four:

- Sterile gauze.
- Adhesive bandages/plasters.
- Cotton wool.
- Antiseptic solution.
- Roller bandages.
- Scissors.
- Disposable gloves.
- Triangular bandage.
- Safety pins.

½ mark each.

b) Sketch a double-cut flat file. (2 marks)



Award:

- Correct **flat rectangular file shape — 1 mark**
- Correct representation of **double-cut teeth — 1 mark**

5

a) Engine terminologies. (3 marks)

i. Bore
The internal diameter of an engine cylinder. — **1 mark**

ii. Throw
The distance from the centreline of the crankshaft to the centreline of the crankpin; it is equal to half the piston stroke. — **1 mark**

iii. Volumetric efficiency
The ratio of the actual amount/volume of air inducted into the cylinder to the theoretical cylinder capacity, usually expressed as a percentage. — **1 mark**

b) Two functions of the charging system. (2 marks)

1. Recharges/maintains the battery in a charged condition. — **1 mark**
2. Supplies electrical power to the vehicle electrical systems while the engine is running. — **1 mark**

6

a) Three checks when fitting new piston rings. (3 marks)

Any three:

1. Check the ring end gap.
2. Check ring side clearance in the piston groove.
3. Check ring groove clearance/condition.
4. Ensure the ring is fitted in the correct groove.
5. Check ring orientation/marking.
6. Check that the ring is not damaged or cracked.
7. Check ring-to-cylinder compatibility.

1 mark each.

b) Figure 1 — Measurements A and B. (2 marks)

A:

- Ring gap — **½ mark**
- Piston ring — **½ mark**
- Feeler gauge — **½ mark**

B:

- Side clearance — **½ mark**
- Piston ring — **½ mark**
- Feeler gauge — **½ mark**

A: Ring gap, piston ring, feeler gauge
B: Side clearance, piston ring, feeler gauge
(1 ½ x 2)

Maximum = 2 marks.

The exact identification should follow the supplied figure; the text version of the paper does not contain the actual Figure 1.

SECTION B — 50 MARKS

The paper instructs learners to answer **Question 7 and any other FOUR questions**.

7

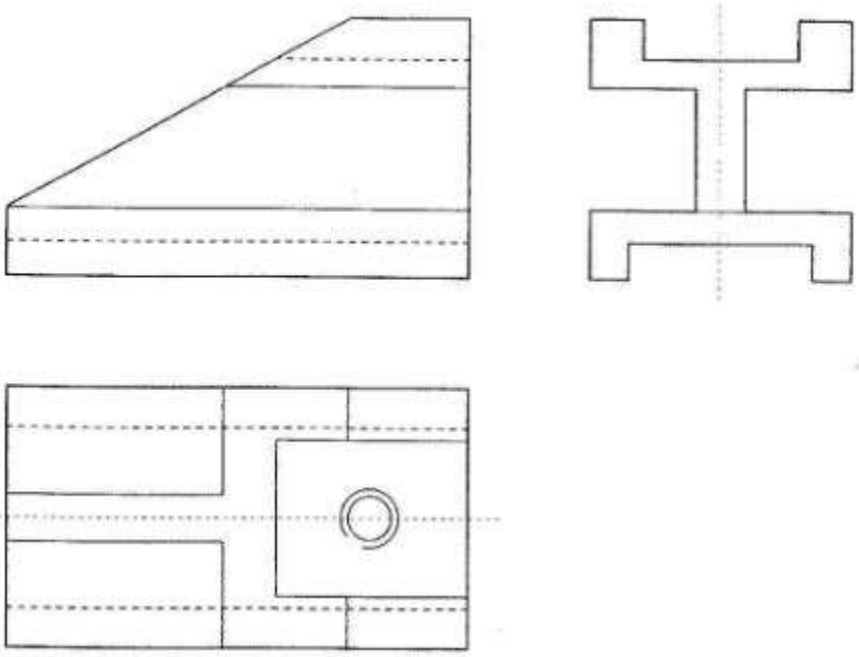
Draw the required views of the engine mounting in **first-angle projection**.

Mark allocation

- Correct front elevation — **3 marks**
- Correct end elevation — **2 marks**
- Correct plan — **3 marks**
- Correct first-angle arrangement/projection — **1 mark**
- Accuracy, line work and neatness — **1 mark**

TOTAL = 10 marks

Construction steps should be clearly shown as required by the examination instructions.



8

a) How the size of each tool is determined. (4 marks)

i. Open-end spanner

By the size of the nut or bolt head it fits, measured **across the flats**. — **2 marks**

ii. Ball-pein hammer

By the **mass/weight of the hammer head**. — **2 marks**

b) Freehand drawing of straight snips and two main parts. (6 marks)



Award:

- Correct overall shape of straight snips — **3 marks**
- Correct blades — **1 mark**
- Correct handles — **1 mark**
- Correct labels/clear presentation — **1 mark**

Acceptable labels:

- Blades
- Handles/grips

- Pivot
- Cutting edges

TOTAL = 6 marks

9

a) Four important workshop areas. (4 marks)

Any four:

1. Vehicle servicing/repair area.
2. Engine repair area.
3. Welding/fabrication area.
4. Tool/equipment storage area.
5. Spare-parts storage area.
6. Office/administration area.
7. Inspection/testing area.
8. Cleaning/washing area.

1 mark each.

b) Three reasons for proper workshop layout. (3 marks)

1. Improves **safety** by providing adequate working space and reducing accidents. — **1 mark**
2. Improves **efficiency/productivity** by reducing unnecessary movement of workers, tools and materials. — **1 mark**
3. Makes effective use of available **space** and facilitates proper organisation of equipment. — **1 mark**

c) Three factors considered when planning workshop layout. (3 marks)

Any three:

1. Available space.
2. Number and type of machines/equipment.
3. Safety requirements.
4. Lighting and ventilation.
5. Availability of electricity and other services.
6. Movement of vehicles and workers.
7. Accessibility of tools and equipment.
8. Fire safety and emergency exits.
9. Future expansion.
10. Waste-disposal arrangements.

1 mark each.

10

a) Three unsafe practices. (3 marks)

1. Working underneath a vehicle supported only by a jack. — **1 mark**
2. Leaving tools scattered on the workshop floor. — **1 mark**
3. Leaving used oil spilled on the workshop floor. — **1 mark**

b) Danger associated with each practice. (3 marks)

1. **Vehicle supported only by a jack:** The jack may fail or the vehicle may fall, causing serious injury or death. — **1 mark**
2. **Tools scattered on the floor:** They can cause slips, trips and falls and may become damaged. — **1 mark**
3. **Oil spilled on the floor:** It creates a slippery surface that can cause falls and may create a fire/environmental hazard. — **1 mark**

c) Four safety and cleanliness measures. (4 marks)

Any four:

1. Use approved axle stands/supports when working beneath a vehicle.
2. Return tools to their proper storage locations after use.
3. Clean oil and other spills immediately.
4. Keep walkways and working areas free from obstructions.
5. Wear appropriate PPE.
6. Dispose of waste safely.
7. Maintain adequate ventilation.
8. Inspect tools before use.
9. Display safety signs.
10. Maintain fire-fighting equipment.

1 mark each.

11

a) Definitions. (4 marks)

i. Tangency
The condition where two curves, or a curve and straight line, meet at exactly one point without forming a sharp corner. — **2 marks**

ii. Blending of curves
The process of joining curves or lines smoothly so that there is a continuous and smooth transition. — **2 marks**

b) Two applications of loci in Power Mechanics. (2 marks)

Any two:

1. Determining the movement/path of mechanical components.
2. Designing linkages.
3. Designing mechanisms.
4. Locating positions of components during movement.
5. Assisting in the design of machine parts.
6. Determining the movement of suspension components.

1 mark each.

c) Importance of tangency and blending of curves. (2 marks)

Any two explained:

1. Produce smooth transitions between surfaces/components.
2. Reduce sharp edges and stress concentration.
3. Improve appearance and accuracy.

4. Facilitate manufacture and finishing.
5. Improve aerodynamic characteristics where applicable.

1 mark each.

d) Two qualities of a good technical drawing. (2 marks)

Any two:

- Accurate.
- Clear.
- Neat.
- Properly dimensioned.
- Correctly labelled.
- Uses appropriate drawing conventions.
- Easy to interpret.
- Drawn to an appropriate scale.

1 mark each.

12

a) Three major vehicle components. (3 marks)

1. Vehicle body.
2. Chassis/frame.
3. Road wheels.

1 mark each.

b) Two functions of the chassis. (2 marks)

Any two:

1. Supports the vehicle body.
2. Supports the engine and other major components.
3. Provides structural strength.
4. Carries and distributes vehicle loads.
5. Provides mounting points for suspension and other components.
6. Maintains structural alignment.

1 mark each.

c) Two functions of road wheels. (2 marks)

Any two:

1. Support the weight of the vehicle.
2. Provide contact between vehicle and road.
3. Enable vehicle movement.
4. Transmit driving forces to the road.
5. Assist steering.
6. Transmit braking forces to the road.

1 mark each.

d) Three factors when selecting suitable road wheels. (3 marks)

Any three:

1. Vehicle load/carrying capacity.
2. Vehicle type and application.
3. Wheel size.
4. Tyre size and specification.
5. Road conditions.
6. Speed rating.
7. Manufacturer's specifications.
8. Cost.
9. Durability.
10. Compatibility with braking and suspension systems.

1 mark each.

13

a) Four ways engines may be classified. (4 marks)

Any four:

1. According to method of combustion — internal/external combustion.
2. According to cycle — two-stroke/four-stroke.
3. According to fuel used — petrol/diesel.
4. According to cooling method — air-cooled/liquid-cooled.
5. According to number of cylinders — single/multi-cylinder.
6. According to cylinder arrangement — in-line, V, horizontally opposed, etc.
7. According to method of ignition — spark/compression ignition.

1 mark each.

b) Distinguish between: (4 marks)

i. Internal and external combustion engines. (2 marks)

Internal combustion engine:
Combustion takes place **inside the engine/combustion chamber**, producing gases that act directly on the moving components. — **1 mark**

External combustion engine:
Fuel is burned **outside the engine's working cylinder/chamber**, with heat transferred to a separate working fluid. — **1 mark**

ii. Two-stroke and four-stroke engines. (2 marks)

Two-stroke engine:
Completes one operating cycle in **two piston strokes or one crankshaft revolution**. — **1 mark**

Four-stroke engine:
Completes one operating cycle in **four piston strokes or two crankshaft revolutions**. — **1 mark**

c) Two advantages of internal combustion engines. (2 marks)

Any two:

1. Compact and relatively lightweight.
2. High power-to-weight ratio.
3. High power output.
4. Suitable for mobile applications.
5. Relatively quick starting.
6. Can operate vehicles over long distances.
7. Fuel can be stored and carried in the vehicle.

1 mark each.

14

a) Four causes of engine backfiring. (4 marks)

Any four:

1. Wrong/incorrect ignition timing.
2. Wrong spark-plug range.
3. Too lean air-fuel mixture.
4. Too rich air-fuel mixture.
5. Carbon deposits.
6. Engine overheating.
7. Faulty condenser.
8. Incorrect valve timing.
9. Faulty ignition system.
10. Faulty fuel injector/carburettor.
11. Vacuum leaks.
12. Poor engine tuning.

1 mark each.

b) Sketch and name two tyre tread patterns. (4 marks)

Any two correctly drawn and named:

1. **Rib tread pattern — 2 marks**
2. **Lug tread pattern — 2 marks**



Other acceptable patterns:

- Block tread.
- Directional tread.
- Rib-and-lug tread.

- Mud/snow tread.

c) Four components involved in absorbing shock. (2 marks)

Any four:

1. Road tyre.
2. Coil/leaf spring.
3. Shock absorber/damper.
4. Suspension linkage/control arm.
5. Rubber bushes.
6. Strut assembly.

½ mark each.

GRADE 10 SPORTS AND RECREATION

MARKING SCHEME

SECTION A 30 MARKS

QUESTION 1:

(a) Define physical fitness.
Physical fitness is the ability of an individual to perform physical activities effectively and efficiently without undue fatigue and with sufficient energy for leisure and other activities.
(1 mark)

(b) Components of physical fitness: Any two.
(2 marks)

- Muscular strength.
- Muscular endurance.
- Cardiovascular endurance.
- Flexibility.
- Speed.
- Agility.
- Balance.
- Coordination.
- Power.
- Reaction time.

1 mark each.

QUESTION 2:

3 marks

(a) Identify the exercise.
Squat.
(1 mark)

(b) One major muscle group involved:
Any one:

- Quadriceps.
- Hamstrings.
- Gluteal muscles.
- Calf muscles.

(1 mark)

(c) Fitness component developed:
Any one:

- Muscular strength.
- Muscular endurance.
- Muscular power, depending on the manner of execution.

(1 mark)

QUESTION 3:

(a) Meaning of muscular endurance:
The ability of a muscle or muscle group to perform repeated contractions or sustain a contraction over a period without becoming excessively fatigued.
(1 mark)

(b) Activities for developing muscular strength: Any two.
(2 marks)

- Weight/resistance training.
- Resistance exercises.
- Squats with appropriate resistance.
- Press-ups.
- Pull-ups.
- Lunges.
- Medicine-ball exercises.
- Appropriate strength-training circuits.

1 mark each.

QUESTION 4:

(a)
Cardiovascular endurance.
(1 mark)

(b) Benefits: Any two explained.
(2 marks)

- Improves the efficiency of the heart and circulatory system.
- Enables an individual to perform prolonged activity with less fatigue.
- Improves the body's ability to transport and use oxygen.
- Enhances endurance in long-duration sports.
- Promotes general physical fitness.
- Supports a healthy active lifestyle.

1 mark each.

QUESTION 5:

(a) Definition:
Flexibility is the ability of a joint or joints to move through an appropriate/full range of motion.
(1 mark)

(b) Activities: Any two.
(2 marks)

- Stretching exercises.
- Gymnastics.
- Yoga.
- Dancing.

- Swimming.
- Dynamic mobility exercises.
- Appropriate flexibility training.

1 mark each.

QUESTION 6:

(a) Good posture:
The correct/aligned positioning of the body while standing, sitting or moving, allowing efficient and balanced movement.
(1 mark)

(b) Effects of poor posture: Any two.
(2 marks)

- Muscle strain.
- Joint discomfort.
- Reduced movement efficiency.
- Poor balance.
- Increased risk of injury.
- Premature fatigue.
- Reduced sporting performance.
- Poor body alignment.

1 mark each.

QUESTION 7:

(a) Likely injury:
Sprain, particularly an ankle sprain.
(1 mark)

(b) Immediate management measures: Any two.
(2 marks)

- Stop participation and protect the injured area.
- Rest the affected part.
- Apply an appropriate cold pack/ice treatment.
- Apply suitable compression.
- Elevate the injured limb where appropriate.
- Seek qualified medical attention where necessary.
- Avoid further activity until the injury is assessed.

1 mark each.

QUESTION 8:

(a) Distinction:

Recreation:
Activities undertaken during free/leisure time primarily for enjoyment, relaxation, refreshment, social interaction or

personal development.
(1 mark)

Competitive sport:
Organized physical activity in which individuals or teams compete against one another according to established rules with performance/results as an important objective.
(1 mark)

(b) Example of recreational activity: Any one.
(1 mark)

- Hiking.
- Nature walking.
- Recreational swimming.
- Dancing.
- Cycling.
- Recreational games.
- Camping.
- Leisure walking.

QUESTION 9:

(a) One reason for assessment before training:
To determine learners' current fitness, skills, abilities and needs so that training can be appropriately planned and individualized.
(1 mark)

(b) Qualities of a good coach: Any two.
(2 marks)

- Good communication skills.
- Knowledgeable.
- Patient.
- Fair.
- Motivating.
- Disciplined.
- Responsible.
- Good leadership.
- Observant.
- Organized.
- Safety-conscious.

1 mark each.

QUESTION 10:

(a) Equipment represented
S: Starting Block

T: Running Huddle

(b) Duties of an athletics official: Any two.
(2 marks)

- Enforce the rules of competition.
- Time an event.
- Record results.
- Measure performances.
- Observe technical requirements.
- Identify rule violations.
- Assist in determining finishing order where assigned.
- Ensure fair competition.
- Promote safety during the event.

1 mark each.

SECTION B 50 MARKS

QUESTION 11:

(a) Reasons for fitness assessment — 3 marks

Any three correctly explained points:

1. **Establishes the learner's fitness level** before training begins.
   (1 mark)
2. **Identifies strengths and weaknesses**, allowing areas requiring improvement to be targeted.
   (1 mark)
3. **Assists in designing an appropriate training programme** according to individual needs and abilities.
   (1 mark)

Other acceptable answers:

- Helps monitor progress.
- Provides baseline information.
- Helps evaluate the effectiveness of training.
- Helps identify appropriate training intensity.
- Can assist in identifying potential risks or limitations.

(b)(i) Developing muscular strength — 2 marks

Muscular strength can be developed through **progressive resistance training**, where muscles work against an appropriate resistance that is gradually increased as the individual adapts.

Examples include:

- Appropriate weight training.
- Resistance exercises.
- Strength circuits.
- Press-ups/pull-ups with suitable progression.

2 marks: method + appropriate explanation/example.

(b)(ii) Developing muscular endurance — 2 marks

Muscular endurance can be developed through **repeated contractions over an extended period**, using suitable resistance and repetitions.

Examples:

- Repeated press-ups.
- Sit-ups.
- Squats.
- Circuit training.
- Repeated body-weight exercises.

2 marks: method + appropriate explanation/example.

(b)(iii) Developing cardiovascular endurance — 2 marks

It can be developed through prolonged or repeated aerobic activities such as:

- Running/jogging.
- Swimming.
- Cycling.
- Continuous aerobic activities.
- Appropriate interval training.

2 marks: method + explanation/example.

(c) Importance of recovery — 1 mark

Recovery allows the body to **rest, repair and adapt to training**, reducing excessive fatigue and risk of overtraining/injury.

1 mark.

QUESTION 12:

(a) Factors influencing flexibility — 3 marks

Any three explained factors:

1. **Age** – flexibility may change with age.
2. **Physical activity/training** – regular appropriate flexibility training can improve range of movement.
3. **Joint structure** – the structure and type of a joint influence its range of movement.
4. **Muscle/connective tissue elasticity** – tight muscles or connective tissues can restrict movement.
5. **Body composition** – excessive body mass may mechanically restrict movement.
6. **Temperature** – appropriately warmed muscles generally move more freely.
7. **Individual biological differences** – individuals naturally differ in flexibility.

1 mark each for a correctly explained factor.

(b) Methods of improving flexibility — 2 marks

Any two:

1. Static stretching:
Moving a muscle/joint to a comfortable stretch and holding the position for an appropriate period.

2. Dynamic stretching/mobility:
Moving joints and muscles repeatedly through a controlled range of motion.

Other acceptable methods:

- Appropriate active stretching.
- Regular flexibility training.
- Yoga/gymnastics-based flexibility exercises.

1 mark each.

(c) Benefits of correct posture — 3 marks

Any three explained points:

- Promotes efficient movement.
- Improves balance and body control.
- Helps distribute body forces appropriately.
- Reduces unnecessary muscular and joint strain.
- Can reduce risk of posture-related injury.
- Improves technical execution.
- Supports efficient sporting performance.

1 mark each.

(d) Precautions during flexibility exercises — 2 marks

Any two:

- Warm up appropriately.
- Use correct technique.
- Avoid bouncing forcefully.
- Do not stretch into sharp pain.
- Progress gradually.
- Do not force a joint beyond its safe range.
- Consider individual ability and limitations.

1 mark each.

QUESTION 13:

(a) Physical benefits — 3 marks

Any three:

1. Improves cardiovascular endurance.
2. Develops muscular strength and endurance.
3. Improves flexibility.

4. Improves coordination and balance.
5. Helps maintain healthy body composition.
6. Develops physical skills.
7. Promotes an active lifestyle.

1 mark each.

(b) Psychological/emotional benefits — 3 marks

Any three:

- Reduces stress.
- Promotes relaxation.
- Improves mood.
- Builds self-confidence.
- Provides enjoyment.
- Promotes mental refreshment.
- Helps manage tension.
- Improves general psychological well-being.

1 mark each.

(c) Social benefits — 2 marks

Any two:

- Promotes friendship.
- Develops teamwork.
- Improves communication.
- Encourages cooperation.
- Develops leadership.
- Promotes social integration.
- Creates opportunities for interaction.

1 mark each.

(d) Factors when selecting recreational activities — 2 marks

Any two:

- Age of participants.
- Ability/skill level.
- Safety.
- Availability of facilities.
- Availability of equipment.
- Cost.
- Accessibility.
- Interests and preferences.
- Environmental conditions.
- Number of participants.
- Time available.

1 mark each.

QUESTION 14:

(a) Causes of sports injuries — 3 marks

Any three explained causes:

1. **Poor technique** – incorrect execution can place excessive stress on body structures.
2. **Inadequate warm-up** – starting strenuous activity without appropriate preparation can increase injury risk.
3. **Overtraining** – excessive training without adequate recovery can contribute to overuse injuries.
4. **Unsafe playing surfaces**.
5. **Faulty or inappropriate equipment**.
6. **Failure to follow sporting rules**.
7. **Lack of protective equipment**.
8. **Fatigue**.
9. **Physical contact/collision**.
10. **Poor physical conditioning**.

1 mark each.

(b) Injury prevention — 3 marks

Any three explained measures:

- Perform an appropriate warm-up.
- Use correct techniques.
- Maintain appropriate fitness and conditioning.
- Use suitable protective equipment.
- Wear appropriate footwear.
- Follow rules and safety procedures.
- Use safe playing surfaces and facilities.
- Allow adequate rest and recovery.
- Maintain sports equipment properly.
- Ensure appropriate supervision/coaching.

1 mark each.

(c) Initial management principles — 2 marks

Any two appropriately explained:

- Stop the activity and protect the injured participant.
- Assess the injury.
- Rest the affected part where appropriate.
- Apply suitable cold treatment for an acute soft-tissue injury.
- Use appropriate compression.
- Elevate an injured limb where appropriate.
- Seek qualified medical assistance.
- Do not allow unsafe return to play.

1 mark each.

(d) Referral for professional medical attention — 2 marks

Any two situations:

- Severe pain.
- Suspected fracture.
- Severe swelling or deformity.
- Loss of consciousness.
- Difficulty breathing.
- Severe bleeding.
- Suspected serious head, neck or spinal injury.
- Inability to bear weight or use the affected body part.
- Symptoms that worsen or fail to improve appropriately.
- Any injury requiring professional assessment.

1 mark each.

QUESTION 15:

(a) Responsibilities of a coach before competition — 2 marks

Any two correctly explained:

1. **Prepare athletes physically and technically** through appropriate training.
   (1 mark)
2. **Organize equipment and competition requirements** so that athletes are adequately prepared.
   (1 mark)

Other acceptable answers:

- Develop competition strategies.
- Explain rules and procedures.
- Ensure athletes have appropriate equipment.
- Organize warm-up.
- Check athlete readiness.
- Provide motivation.
- Ensure safety.
- Study opponents/events where appropriate.

(b) Factors considered in talent identification — 3 marks

Any three explained factors:

1. **Physical abilities** – such as speed, strength, endurance, flexibility or power.
   (1 mark)
2. **Sport-specific skills** – ability to perform relevant techniques effectively.
   (1 mark)
3. **Psychological characteristics** – motivation, determination, confidence, discipline or willingness to learn.
   (1 mark)

Other acceptable factors:

- Coordination.
- Agility.
- Body characteristics relevant to the sport.
- Competition performance.
- Learning ability.
- Consistency of performance.

(c) Qualities of an effective sports official — 3 marks

Any three:

1. **Impartial/fair** – treats all competitors equally.
   (1 mark)
2. **Knowledgeable** – understands and correctly applies the rules.
   (1 mark)
3. **Observant/alert** – pays close attention to events and identifies violations or important occurrences.
   (1 mark)

Other acceptable qualities:

- Honest.
- Consistent.
- Confident.
- Decisive.
- Good communicator.
- Responsible.
- Professional.
- Physically and mentally prepared.
- Respectful.

(d) Importance of impartiality — 2 marks

Any two explained:

1. **Ensures fairness** by applying the same rules to all competitors.
   (1 mark)
2. **Maintains the credibility and integrity of the competition**, making results trustworthy.
   (1 mark)

Other acceptable answers:

- Prevents favouritism.
- Reduces disputes.
- Builds confidence among participants.
- Promotes sportsmanship.
- Protects the reputation of officials and the competition.

GRADE 10 THEATRE AND FILM TECHNOLOGY

MARKING SCHEME / ANSWERS

General instruction: Award any other correct, relevant and well-explained response. Do not penalise a learner for using a valid alternative term where the meaning is correct.

SECTION A: 30 MARKS

1

a) What is theatre?
Theatre is the art of presenting stories, ideas or experiences through live performance by actors before an audience.
(1 mark)

b) Define film.
Film is a recorded visual and/or audio-visual production that uses moving images, sound and other techniques to communicate a story, idea or message.
(1 mark)

c) One similarity between theatre and film:
Any one:

- Both use actors to portray characters.
- Both communicate stories, ideas or messages.
- Both use scripts.
- Both may use costumes, make-up, props, sound and lighting.
- Both are forms of artistic expression.

(1 mark)

d) Two differences between live theatre and film:
Any two:

Live theatre	Film
Performed live before an audience.	Recorded and viewed later.
Actors perform continuously on stage.	Scenes can be edited and rearranged.
Performance takes place in a stage environment.	Can be filmed in many locations.
Mistakes may not be easily corrected during a live performance.	Mistakes can be corrected through editing or retakes.
Audience interaction is usually immediate.	Audience interaction is generally indirect.

1 mark each = 2 marks

2

a) Position A:
Centre stage.
(1 mark)

b) Position B:
Centre stage/right side of the stage depending on the learner's interpretation of the diagram.
(1 mark)

Accept: Stage right where the learner correctly identifies the position from the actor's perspective.

c) C and D:

- **C – Stage left**
- **D – Stage right**
  (1 mark each = 2 marks)

d) One reason actors need to understand stage directions:
Any one:

- To know where to move or stand.
- To maintain correct positioning.
- To coordinate movements with other actors.
- To improve audience visibility.
- To follow the director's instructions.
- To maintain continuity of the performance.

(1 mark)

3

a) What is a costume?
A costume is clothing and accessories worn by an actor to represent a particular character in a theatrical or film production.
(1 mark)

b) Two functions of costume:
Any two:

- Identifies the character.
- Shows the character's occupation or social status.
- Indicates the period or setting.
- Helps communicate personality.
- Enhances the visual appearance of the production.
- Helps establish cultural identity.
- Supports characterisation.

1 mark each = 2 marks

c) Two factors to consider when preparing make-up:
Any two:

- Character requirements.
- Lighting conditions.

- Skin safety.
- Age of the character.
- Setting/period of the production.
- Type of performance.
- Distance between performer and audience/camera.
- Type and quality of make-up materials.

1 mark each = 2 marks

4

a) Figure A:
Low-angle camera position/shot — where the camera is positioned below the subject and points upward.
(1 mark)

b) Figure B:
High-angle camera position/shot — where the camera is positioned above the subject and points downward.
(1 mark)

c) Type of shot showing the entire body:
Full shot/full-length shot.
(1 mark)

d) Two reasons camera angles are important:
Any two:

- Influence how the audience perceives a character.
- Create particular moods or effects.
- Show power or weakness.
- Direct audience attention.
- Improve visual storytelling.
- Provide different perspectives.
- Help establish relationships between characters and their surroundings.

1 mark each = 2 marks

5

a) Meaning of rehearsal:
A rehearsal is a practice session in which performers and the production team prepare and practise a performance before the actual presentation.
(1 mark)

b) Two activities during rehearsal:
Any two:

- Practising dialogue.
- Practising movements/blocking.
- Practising voice projection.
- Practising characterisation.
- Practising entrances and exits.
- Testing props and costumes.
- Practising lighting and sound cues.
- Receiving direction and corrections.

1 mark each = 2 marks

c) Two reasons rehearsals are important:
Any two:

- Improve performers' confidence.
- Help actors memorize lines.
- Correct mistakes.
- Improve coordination.
- Perfect stage movements.
- Test technical equipment.
- Improve timing.
- Help the director refine the performance.

1 mark each = 2 marks

6

a) One safety precaution when handling electrical equipment:
Any one:

- Keep electrical equipment away from water.
- Switch off equipment before making connections.
- Avoid touching electrical equipment with wet hands.
- Check cables for damage.
- Use properly installed electrical connections.
- Avoid overloading sockets.

(1 mark)

b) Two stage-set safety precautions:
Any two:

- Secure all structures properly.
- Keep walkways and exits clear.
- Avoid unstable structures.
- Use appropriate materials.
- Remove sharp or dangerous objects.
- Ensure props and set pieces cannot easily fall.
- Provide adequate lighting backstage.
- Avoid obstructing emergency exits.

1 mark each = 2 marks

c) Two ethical practices:
Any two:

- Obtain consent from participants.
- Respect people's privacy.
- Avoid discriminatory or offensive representation.
- Give credit to creators where appropriate.
- Avoid exploiting community members.
- Respect cultural practices.
- Obtain permission before recording people.

- Represent people and communities accurately and respectfully.

1 mark each = 2 marks

SECTION B 50 MARKS

7

a) Two characters:

- Maya
- Kelvin

1 mark each = 2 marks

b) Suitable setting and reason:

Possible answer:

Setting: School compound, classroom or school meeting area.
Reason: The characters could reasonably be discussing an idea related to a school activity or meeting.

2 marks

Award:

- Suitable setting – **1 mark**
- Relevant reason – **1 mark**

c) One stage direction:

"Maya walks towards Kelvin and places a hand on his shoulder."

(1 mark)

d) Main conflict:
Kelvin is afraid of presenting/sharing his idea because he fears being laughed at, while Maya encourages him to express his idea.

2 marks

e) Three ways Kelvin could portray his emotions:
Any three:

- Use a hesitant or trembling voice.
- Avoid eye contact.
- Lower his head.
- Use nervous movements.
- Fidget with his hands.
- Use an anxious facial expression.
- Speak slowly or pause frequently.
- Adopt a withdrawn body posture.

1 mark each = 3 marks

8

a) Define blocking:

Blocking is the planned positioning and movement of actors on stage during a performance.

2 marks

Award:

- Planned positioning – **1 mark**
- Movement of actors during performance – **1 mark**

b) Three factors when positioning actors:
Any three:

- Audience visibility.
- Character relationships.
- Stage space.
- Lighting.
- Props and set.
- Movement requirements.
- Voice audibility.
- Safety.
- Dramatic effect.
- Camera position where applicable.

1 mark each = 3 marks

c) Two ways effective blocking improves performance:
Any two explained:

- Ensures actors are visible to the audience.
- Prevents actors from obstructing one another.
- Creates smooth movement.
- Strengthens dramatic action.
- Helps communicate relationships between characters.
- Improves coordination.
- Makes the production visually appealing.

1 mark each = 2 marks

d) Three responsibilities of a director during rehearsals:
Any three:

- Guide actors in character interpretation.
- Plan and correct blocking.
- Organise rehearsals.
- Interpret the script.
- Coordinate the technical team.
- Give actors feedback.
- Ensure appropriate use of props and costumes.

- Ensure the production communicates its intended message.
- Maintain discipline and teamwork.

1 mark each = 3 marks

9

The production is set in a **traditional Kenyan village**.

a) Two suitable stage-set features:
Any two:

- Traditional homestead.
- Hut.
- Fence.
- Village pathway.
- Cooking area.
- Traditional meeting area.
- Trees/plants.
- Traditional stools.

1 mark each = 2 marks

b) Two appropriate costume features:
Any two:

- Traditional fabrics.
- Appropriate cultural clothing.
- Traditional accessories.
- Beads.
- Headgear.
- Shawls/wrappings.
- Clothing appropriate to the selected community and historical period.

1 mark each = 2 marks

c) Two suitable props:
Any two:

- Traditional baskets.
- Calabashes.
- Stools.
- Farming tools.
- Cooking utensils.
- Walking sticks.
- Traditional musical instruments.
- Woven containers.

1 mark each = 2 marks

d) Two ways of creating atmosphere through lighting:
Any two:

- Use warm lighting to create a welcoming village atmosphere.

- Use dim lighting to represent evening/night.
- Use brighter lighting to represent daytime.
- Use focused lighting to draw attention to an important activity.
- Use changing intensity to create mood.

1 mark each = 2 marks

e) Two ways of using locally available materials safely:
Any two well-explained:

- Use reeds, cardboard or fabric to create scenery.
- Use recycled containers as props.
- Use locally available fabrics for costumes.
- Reuse safe household objects as props.
- Use natural materials that are clean, dry and structurally safe.
- Borrow materials from the community instead of purchasing them.

1 mark each = 2 marks

10

a) Two pre-production activities:
Any two:

- Scriptwriting.
- Storyboarding.
- Casting.
- Location scouting.
- Budgeting.
- Scheduling.
- Rehearsals.
- Obtaining filming permissions.
- Preparing equipment.

1 mark each = 2 marks

b) Two production activities:
Any two:

- Camera operation.
- Recording scenes.
- Directing actors.
- Recording sound.
- Setting up lighting.
- Capturing different shots.
- Monitoring performances.

1 mark each = 2 marks

c) Two post-production activities:
Any two:

- Video editing.
- Sound editing.

- Adding music.
- Adding titles/credits.
- Colour correction.
- Adding visual effects.
- Reviewing and exporting the final film.

1 mark each = 2 marks

d) Two reasons a storyboard is useful:
Any two:

- Provides a visual plan of scenes.
- Shows planned shots and camera angles.
- Helps organise the sequence of events.
- Helps the director communicate ideas to the production team.
- Saves time during filming.
- Helps identify required locations, props and actors.
- Reduces unnecessary retakes.

1 mark each = 2 marks

e) Two ways of ensuring good sound:
Any two:

- Use appropriate microphones.
- Position microphones correctly.
- Reduce background noise.
- Monitor sound levels during recording.
- Check cables and connections.
- Record in a suitable quiet location.
- Conduct sound tests before filming.
- Keep microphones at an appropriate distance from performers.

1 mark each = 2 marks

11

a) Two cultural aspects:
Any two:

- Traditional music.
- Traditional dance.
- Folklore.
- Traditional costumes.
- Traditional language.
- Oral narratives.
- Traditional instruments.
- Cultural ceremonies.
- Traditional games.
- Indigenous knowledge.

1 mark each = 2 marks

b) Two methods of involving the community:
Any two:

- Conduct interviews with community elders.
- Invite community members to share stories.
- Consult cultural experts.
- Involve local performers.
- Organise community discussions.
- Collect traditional songs and narratives.
- Invite community members to review the script.
- Allow community participation in the performance.

1 mark each = 2 marks

c) Two ways theatre preserves cultural heritage:
Any two explained:

- Passes traditional stories from one generation to another.
- Preserves traditional songs, dances and language.
- Documents cultural practices through performance.
- Educates young people about their heritage.
- Creates opportunities for elders to share knowledge.
- Promotes appreciation of cultural identity.

1 mark each = 2 marks

d) Two performance techniques:
Any two:

- Use of music.
- Dance.
- Storytelling.
- Effective voice projection.
- Audience participation.
- Humour.
- Gestures.
- Facial expressions.
- Appropriate costumes.
- Use of dramatic movement.
- Call-and-response.

1 mark each = 2 marks

e) Two methods of evaluating success:
Any two:

- Obtain audience feedback.
- Conduct interviews.
- Use questionnaires.
- Ask questions after the performance.
- Observe audience participation.
- Hold a production-team evaluation meeting.
- Assess whether the intended message was understood.
- Compare the performance against its objectives.

1 mark each = 2 marks

WOOD TECHNOLOGY

MARKING SCHEME

SECTION A: 30 MARKS

1. Overview of Woodwork — 3 marks

a) One reason for development of woodwork: **(1 mark)**

- Development of human needs.
- Need for shelter and furniture.
- Availability of timber.
- Development of tools and technology.
- Need for income/employment.

Any one — 1 mark

b) Careers related to woodwork: **(2 marks)**

- Carpenter
- Cabinet maker
- Furniture designer
- Woodwork teacher
- Joiner
- Wood technologist
- Woodwork technician

Any two × 1 = 2 marks

2. Woodwork and Economic Development — 3 marks

Ways woodwork contributes to economic development:

- Creates employment opportunities.
- Generates income.
- Provides furniture and other useful products.
- Promotes trade.
- Generates government revenue through taxation.
- Promotes development of small businesses.
- Provides raw materials for industries.
- Earns foreign exchange through exports.

Any three × 1 = 3 marks

3. Wood Workshop — 3 marks

a) Features of a well-designed wood workshop: **(2 marks)**

- Adequate lighting.
- Adequate ventilation.
- Sufficient working space.
- Proper storage facilities.
- Safe electrical installation.

- Strong and suitable floor.
- Adequate water supply.

Any two × 1 = 2 marks

b) One factor considered when arranging workshop layout: **(1 mark)**

- Safety.
- Available space.
- Workflow.
- Position of machines.
- Accessibility.
- Lighting and ventilation.

Any one — 1 mark

4. Safety in the Wood Workshop — 3 marks

Safety precautions:

- Wear appropriate PPE.
- Keep the workshop clean and tidy.
- Use the correct tool for each operation.
- Do not run in the workshop.
- Report damaged tools.
- Store tools properly after use.
- Follow workshop instructions.
- Keep hands away from cutting edges.
- Switch off machines after use.

Any three × 1 = 3 marks

5. Hand Tools — 3 marks

a) Jack plane — **Woodworking/planing tool (1)**

b) Tenon saw — **Cutting/sawing tool (1)**

c) Try square — **Measuring (1)**

6. Safe Use and Maintenance of Tools — 3 marks

Reasons for maintaining tools:

- Prolongs tool life.
- Improves efficiency.
- Ensures accuracy.
- Reduces accidents.
- Prevents rust and deterioration.
- Saves replacement costs.
- Keeps tools in good working condition.

Any three × 1 = 3 marks

7. Growth of Timber Trees — 3 marks

a) One condition necessary for healthy growth: **(1 mark)**

- Adequate water.
- Suitable soil.
- Adequate sunlight.
- Suitable temperature.
- Nutrients.

Any one — 1 mark

b) Classification of timber trees: **(2 marks)**

- Hardwood trees.
- Softwood trees.

2 × 1 = 2 marks

8. Cross-section of a Tree Trunk — 3 marks

a) Outer protective layer — **Bark (1)**

b) Layer through which water and minerals move upwards — **Sapwood (1)**

c) Central part of trunk — **Heartwood (1)**

9. Timber Conversion and Seasoning — 3 marks

a) One method of timber conversion: **(1 mark)**

- Plain sawing.
- Quarter sawing.
- Through-and-through sawing.
- Tangential sawing.
- Radial sawing.

Any one — 1 mark

b) One method of seasoning: **(1 mark)**

- Air seasoning.
- Kiln seasoning.
- Water seasoning.
- Chemical seasoning.

Any one — 1 mark

c) One reason for seasoning timber: **(1 mark)**

- Reduce moisture content.
- Prevent excessive shrinkage.
- Reduce warping.
- Increase strength.

- Improve durability.
- Improve workability.

Any one — 1 mark

10. Adhesives — 3 marks

a) Adhesive: **(1 mark)**

A substance used to join/bond two or more surfaces together.

b) Characteristics of a good wood adhesive: **(2 marks)**

- Strong bonding ability.
- Durable.
- Sets within a reasonable time.
- Resistant to moisture where required.
- Easy to apply.
- Does not damage the wood.
- Suitable for the materials being joined.

Any two × 1 = 2 marks

SECTION B: 50 MARKS

11.

a) Methods of transporting timber logs — 2 marks

- Road transport — **1**
- Railway — **1**
- Water transport — **1**
- Animal transport — **1**
- Skidding/tractors — **1**

Any two × 1 = 2 marks

b) Factors influencing transportation method — 2 marks

- Distance to be covered.
- Terrain/topography.
- Availability of roads.
- Cost.
- Size and weight of logs.
- Availability of transport.
- Accessibility of the forest.

Any two × 1 = 2 marks

c) Methods of timber conversion — 3 marks

- Plain/tangential sawing.
- Quarter/radial sawing.
- Through-and-through sawing.

- Rift sawing.

Any three × 1 = 3 marks

d) Difference between natural and artificial seasoning — 1 mark

- **Natural seasoning** uses natural environmental conditions such as air and sunlight, while **artificial seasoning** uses controlled methods such as kilns.

1 mark

e) Reasons for proper stacking — 2 marks

- Allows free circulation of air.
- Prevents warping.
- Prevents fungal attack.
- Promotes uniform drying.
- Keeps timber off the ground.
- Prevents physical damage.

Any two × 1 = 2 marks

12.

a) Difference between hand tool and workshop equipment — 2 marks

Hand tool: A tool operated mainly by hand to perform a particular woodworking operation. **(1)**

Workshop equipment: Larger apparatus, machinery or facilities used to support or carry out workshop operations. **(1)**

b) Examples of hand tools — 4 marks

Any four:

- Tenon saw.
- Jack plane.
- Try square.
- Chisel.
- Mallet.
- Marking gauge.
- Smoothing plane.
- Screwdriver.
- Claw hammer.
- Brace.

4 × 1 = 4 marks

c) Safety precautions when using machines/equipment — 2 marks

- Wear appropriate PPE.
- Inspect equipment before use.
- Keep hands away from moving parts.
- Do not operate faulty equipment.
- Switch off equipment after use.

- Follow operating instructions.

Any two × 1 = 2 marks

d) Importance of using correct tool — 1 mark

- Ensures accurate work.
- Improves efficiency.
- Reduces damage to materials.
- Prevents accidents.
- Produces quality work.

Any one — 1 mark

e) Safe storage of hand tools — 1 mark

- Store tools in a tool cabinet/rack after cleaning them.

1 mark

13.

a) Processes involved in preparing timber — 4 marks

Any four:

- Measuring.
- Marking out.
- Sawing/cutting.
- Planing.
- Squaring.
- Straightening.
- Chiselling.
- Smoothing.
- Checking dimensions.

4 × 1 = 4 marks

b) Operations on prepared wood — 2 marks

Any two:

- Drilling.
- Chiselling.
- Sawing.
- Planing.
- Routing.
- Sanding.
- Grooving.
- Rebating.

2 × 1 = 2 marks

c) Woodworking joints — 2 marks

Any two:

- Mortise and tenon.
- Dowel joint.
- Butt joint.
- Halving joint.
- Housing/dado joint.
- Edge joint.
- Bridle joint.
- Lap joint.

2 × 1 = 2 marks

d) Roles of joints — 2 marks

- Join two or more pieces of wood.
- Provide strength.
- Improve stability.
- Enable construction of furniture.
- Improve appearance.
- Allow different components to be assembled.

Any two × 1 = 2 marks

14.

a) Identify the joints — 4 marks

i. Projection fitting into a corresponding hole — **Mortise and tenon joint (1)**

ii. Equal portions removed from two members and fitted together — **Halving joint (1)**

iii. Two pieces joined end-to-end using a connecting member — **Dowel joint (1)**

iv. Two pieces joined along their edges — **Edge joint (1)**

b) Steps in preparing a mortise and tenon joint — 4 marks

Any correct sequence:

1. Select and prepare the timber. **(1)**
2. Mark out the mortise and tenon accurately. **(1)**
3. Cut/chisel the mortise and saw the tenon. **(1)**
4. Test-fit the joint and make necessary adjustments. **(1)**

c) Fasteners used in woodworking — 2 marks

Any two:

- Nails.
- Screws.
- Bolts.
- Staples.
- Brads.

2 × 1 = 2 marks

15.

a) Reasons for finishing a wooden product — 3 marks

- Improves appearance.
- Protects wood from moisture.
- Protects against dirt.
- Increases durability.
- Enhances natural grain.
- Makes the surface easier to clean.
- Protects against wear.

Any three × 1 = 3 marks

b) Materials/tools for surface preparation — 2 marks

Any two:

- Sandpaper.
- Scraper.
- Sanding block.
- Wood filler.
- Clean cloth.
- Brush.
- Cabinet scraper.

Any two × 1 = 2 marks

c) Preparing surface for clear varnish — 1 mark

- Plane/scrape and sand the surface until it is smooth, clean and free from dust.

1 mark

d) Skill acquired from furniture project — 1 mark

Any one:

- Measuring.
- Marking out.
- Cutting.
- Jointing.
- Assembly.
- Finishing.
- Problem-solving.
- Tool handling.

1 mark

e) Importance of clear varnish — 1 mark

- Protects the wood while enhancing its appearance/natural grain.

1 mark

Furniture sketch — 2 marks

Award for a simple furniture item such as a stool, table, chair or bookshelf:

- Appropriate and recognisable furniture design — **1 mark**
- Neat, proportional and clearly drawn — **1 mark**

KENYA CERTIFICATE OF BASIC EDUCATION

KCBE

SENIOR SCHOOL EDUCATION

Quality Education for a Brighter Future

HOLIDAY ASSIGNMENT
NOVEMBER – DECEMBER

Dear Learner,
Use this holiday to read, research, explore and grow. Be disciplined, work hard and make the most of your time.
Your future is in your hands!



GRADE 10



Education Builds a Better Tomorrow

KENYA CERTIFICATE OF BASIC EDUCATION
SENIOR SCHOOL EDUCATION

HOLIDAY ASSIGNMENT — NOVEMBER – DECEMBER — GRADE 10