527/1
AGRICULTURE
Paper 1
2024
2½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE

Paper 1
Theory

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **six** *examination items. It has* **two** *sections;* **A** *and* **B**.

Section **A** *has* **two** *compulsory items.*

Section **B** *has* **two** *parts;* **I** *and* **II**. *Answer* **one** *item from each part.*

Answer **four** *examination items in all.*

Any additional item(s) answered will **not** *be scored.*

All *answers* **must** *be written in the Answer booklet(s) provided.*

 Turn Over

SECTION A

SOIL SCIENCE AND VALUE ADDITION

Answer **all** *items in this section*.

Item 1.

(a) Kagugu a farmer in Pabbu sub county in Uganda was advised to start a dairy farm on his one-hectare piece of land. He planted elephant grass and Congo signal grass in plots **A** and **B** respectively at the same time. He expects to receive in-calf dairy heifers in six months' time and both pastures have already reached their flowering stages. Therefore, there is no likelihood of him feeding the current pastures to the heifers which are yet to come. At the same time, he is not interested in selling his pastures in a green state to other farmers. In his first attempt to conserve the pastures, the final product was rotten, black in colour and produced an unpleasant smell.

Task

Write a message to Kagugu advising him on how to conserve his pastures.

(b) In Pabbu sub-county where Kagugu practices farming, many other farmers have small plots of land that are scattered in many places. They keep little money from what they sell. This little money is kept in pillows, or wooden boxes. Some farmers do not even know how much money they have kept. During planting season, each farmer works alone in his/her farm, and by the time they finish, the first part of the garden they began with has already grown bushy. A market survey indicates that an individual farmer buys a litre of Rocket pesticide at Ugsh40,000, yet a 20 litre jerrycan of the same pesticide costs Ugsh600,000.

Task

Based on the above scenario, what advice would you give to the farmers in Pabbu Sub county?

Item 2.

Having realized that students in a school have preferences for fruits like passion fruits, the Young Farmers Club decided to establish an orchard in the school farm. Some areas of the school farm are steep and rocky with shallow soils while other areas are gently sloping with deep, well drained and fairly fertile soils. In the course of running the project, it was observed that the soils in the nursery were compact, sticky and flooded with water. The pH of the soil in the nursery is lower than the recommended range for fruit growing. The seedlings were thin with shallow roots, bent stems and yellowish leaves.

Task

In your view, suggest the improvements that the Young Farmers Club should do to ensure profitable fruit production on the school farm.

SECTION B

This section has **two** *parts;* **I** *and* **II**

PART I: ANIMAL PRODUCTION

Answer ***one*** *item from this part.*

Item 3.

Innocent who is an agricultural extension worker visited a farm and in his reported he indicated that the roof of a calf pen was blown off. Also, the cows were bonny and their dung contained worms. The adult animals could hardly find what to eat and were grazing on woody natural pastures. The only source of water had snail shells, algae and dung. The lactating cows had cracks on their teats. Hair-like substances were seen in the milk which was filtered using an old cloth. The farm owner uses a basin for mixing the acaricide.

Task

Basing on the report from Innocent, how can the farm owner improve on the productivity of the livestock farm?

Item 4.

Peter is a poultry farmer producing both eggs and meat on a large scale. Recently he got a new farm manager and instructed him to establish a poultry breeding unit using the parent stock he has to produce chicks for sale. However, the farm manager was not getting the expected number of chicks from the hatchery. The farm is located in an area with many other poultry farmers and there is free movement of chicken from one farm to another. Birds from the neighbouring farms were observed with cough, blood-stained faeces, mucus discharge and scratch marks on their bodies.

Operation Wealth Creation has provided tools and equipment to livestock farmers in the community especially for disease and parasite management.

Task

Write guidelines to help the farm manager meet Peter's requirement.

PART II: CROP PRODCUTION

Answe **one** *item from this part.*

Item 5.
Mr. Maberu is a farmer who decided to grow cassava on one hectare of land. He obtained all the planting materials from his neighbours' farms. The cassava stems had dark brown streaks which appeared as scratches or wounds. The stems were cut into 20 cm long pieces. After clearing the bush using a slasher, Mr. Maberu used a forked hoe to plant the cuttings at a spacing of 3m x 3m. Some of the cuttings sprouted but others did not. Weeds grew very fast, the cassava leaflets were twisted, and stunted growth was observed in some cassava plants in the garden.
Mr. Maberu managed to weed once and decided to harvest the crop after 6 months using a forked hoe. Most tubers were found rotten at harvest and others damaged during harvesting. As a result, he obtained only two 200 kg of fresh cassava instead of the expected 12600kg per hectare.

Task
Write a message to Maberu advising him on how to obtain the expected yield.

Item 6.
A vegetable farmer decided to grow a hectare of tomatoes. He set up a nursery bed in a free draining area near a water source. After preparing the nursery, he broadcast the seeds, covered them well with soil and watered the bed. The seeds germinated well and seedlings covered the entire soil surface. He maintained all the seedlings up to the time of transplanting. Transplanting began at twelve noon on a sunny day as the farmer had to attend a meeting at 2.00 pm the same day. After a week, some empty spaces were noticed within the crop rows. The plants which survived had many branches and leaves. When the farmer inspected his crop before the plants reached maturity, he observed dark brown patches on the leaves and stems. Dark brown circular spots were also covering large parts of the fruits. At a later stage, holes were also observed on some bigger fruits. At harvest, farm workers picked the fully ripe red fruits, packed and sealed them in plastic bags. The packed fruits were to be delivered to the market in a week's times.

Task
Write a message to the vegetable farmer advising him on how he should carry out tomato production efficiently.

527/1
AGRICULTURE
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE

Paper 1
Theory

SCORING GUIDE

527/1 Agriculture theory sample responses

1(a). Sample *Expected responses*

Plot A (Elephant grass) – silage
Identify the material, tools and equipment (panga, molasses, silage storage, tarplin, jerrican, basins, watering can, and personal protective equipment PPE)

- ✓ *Put on the personal protective equipment to protect yourself from injury.*
- ✓ *Use a panga to cut/harvest the pasture to ensure efficient harvesting.*
- ✓ *Spread the harvested pasture on a clean floor/tarpaulin to wilt to reduce moisture content that may cause rotting during processing.*
- ✓ *Chop the pasture into small pieces to increase surface area for bacterial action during fermentation.*
- ✓ *Pack tightly/press/compress appropriate material in a silo to create an anaerobic condition for fermentation as you sprinkle molasses to increase fermentation process.*
- ✓ *Seal the material to prevent contamination by other materials and entry of air.*
- ✓ *For a pit silo, dig a trench around to lead away running water that may spoil the silage.*

PLOT B (Congo signal grass) – hay)
Identify the material, tools and equipment (panga, tarpaulin, baler, ropes and personal protective equipment PPE)

- ✓ *Put on the personal protective equipment to protect yourself from injury.*
- ✓ *Use a panga to cut/harvest the pasture to ensure efficient harvesting.*
- ✓ *Spread the harvested pasture on a clean floor/tarplin to wilt to prevent rotting and contamination.*
- ✓ *Bale the hay into bundles to prevent wastage.*
- ✓ *Pack the hay bales in a clean and leak proof store to keep hay dry and in good condition for a long time.*

1(b) sample expected responses

- ✓ *Land fragmentation – land consolidation to bring pieces of land under one block for easy management.*
- ✓ *Poor saving culture – forming saving groups to encourage members to save and invest.*

- ✓ *No banking of money – opening savings accounts in financial institutions to keep money safely before investment.*
- ✓ *No record keeping – keeping records to keep track of spending and sales.*
- ✓ *Farmers not working as a group – forming cooperatives/self-help groups so that farmers can join efforts to solve their problems.*
- ✓ *Buying input at a high price – buying in bulk as a group to reduce the unit cost of farm inputs.*

2. Sample *Expected responses*

- ✓ *Steep slope – terracing to reduce slope gradient and erosion.*
- ✓ *Rocky – planting trees to cause weathering that will produce new soil.*
- ✓ *Shallow soils – deep cultivation/sub-soiling to improve drainage and planting depth.*
- ✓ *Fairly fertile soils – addition of manure or artificial fertilizers to raise fertility to the required level.*
- ✓ *Compact – deep cultivation, addition of manure, marling, liming to loosen soil and improve soil structure.*
- ✓ *Sticky – liming, marling, addition of organic manure to loosen soil and improve its structure.*
- ✓ *Flooded soils – drainage, sub-soiling, addition of organic manure to remove excess moisture and improve soil structure.*

3. Sample expected responses

- ✓ *Blown off roof of calf pen - Renovation / repairing the calf pen (re-roofing) to protect calves from rain and sunshine.*
- ✓ *Worm infestation - Deworming -to kill internal parasites.*
- ✓ *Poor pastures - Planting high quality pastures/improving pastures/ supplementary feeding to improve nutrition of animals.*
- ✓ *Unprotected and dirty water source - Fencing the water source, planting the grass around the water source, de-silting of the water source to ensure clean water source for animals.*
- ✓ *Injured teats - Treating cracked teats with recommended medication (all preventive measures of cracks on teats) e.g. applying milking salve to reduce friction on the teats and to heal teats.*

- ✓ *Dirty/soiled animals - grooming cows before milking, using clean filter to milk, putting on protective gear e.g. cap by a milker man to prevent hair and other dirt from falling into the milk.*
- ✓ *Use of wrong equipment - Select and use appropriate equipment for mixing acaricide e.g. spray pump, knapsack sprayer to ensure efficient treatment of animals.*

4. Sample Expected Responses

- ✓ *Fencing* off the poultry farm to prevent spread of diseases from other farms.
- ✓ *Vaccinating* birds to control diseases.
- ✓ *Deworming* birds to control internal parasites.
- ✓ *Disinfecting* the poultry house, tools and equipment to prevent the spread of diseases.
- ✓ *Providing* a footbath to prevent the spread of diseases.
- ✓ Ensuring proper ventilation of poultry house to prevent respiratory *infections*.
- ✓ *Providing* clean feeds and water to ensure birds stay healthy.
- ✓ *Providing* a balanced ration for birds to ensure fast and healthy birds.
- ✓ *Providing* adequate space for birds in the poultry house to reduce overcrowding and ensure the birds move freely.
- ✓ *Regulating* the entry of visitors into the farm to prevent introduction of diseases into the farm.
- ✓ *Isolating* and treating sick birds to prevent the spread of diseases.
- ✓ Selecting good/viable/high quality eggs for hatching to ensure *hatching* of healthy chicks.
- ✓ *Providing* optimum temperature for hatching to ensure successful hatching.
- ✓ *Turning* the eggs to ensure successful hatching.
- ✓ *Providing* optimum humidity in the hatchery to ensure successful hatching.

5. Sample Expected responses

- ✓ *Obtain* clean planting materials to produce healthy plants.
- ✓ Obtain planting materials from reliable sources to ensure they are *healthy*.
- ✓ Plant a *resistant* variety to prevent crop disease infections.
- ✓ Proper *seedbed* preparation to ensure proper sprouting of the cuttings.
- ✓ Use *recommended* spacing to provide crop plants with enough growing space.
- ✓ Gap *filling* to maintain the correct plant population in the field.
- ✓ Weed *the* crop at least twice to reduce competition for nutrients and the spread of diseases.
- ✓ *Harvest* at the correct stage of maturity to ensure high quality and quantity of product.
- ✓ Use a *hand* hoe to carefully remove soil to expose the tuber which is dug out to prevent damage/injury to tubers.
- ✓ *Carefully* lift the tubers from the soil and place gently on the ground or in a container to prevent bruising or damaging them.
- ✓ Use *recommended* length of stem cutting to ensure proper sprouting.

6. Sample Expected responses

- ✓ *Broadcast* too many seeds – place seeds/sprinkle seeds along drills/furrows in the nursery bed to prevent overcrowding of seedlings.
- ✓ *Overcrowding* of seedlings – thin seedlings/prick out to reduce competition for space and nutrients.
- ✓ *Seedlings* not hardened off – reducing watering and shade to
- ✓ gradually expose seedlings to field conditions.
- ✓ Wrong *time* of transplanting – transplant seedlings in the morning or evening to prevent wilting of seedlings.
- ✓ Empty *spaces* within rows – gap fill to ensure correct plant population
- ✓ *Occurrence* of pests and diseases – carry out pest and disease control measures to *prevent* yield reduction.
- ✓ Too many *branches* and leaves on surviving plants - prune plants to allow them grow to the desired shape.
- ✓ Delayed *harvesting* – harvest fruits before they are fully ripe so that they can be kept in good condition for a longer time.
- ✓ Use of *unsuitable* containers/bags to keep fruits during harvesting - use open and well-ventilated containers to keep fruits in good condition.

527/2 Inst. Sch.
AGRICULTURE
PRACTICAL
INSTRUCTIONS
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE PRACTICAL INSTRUCTIONS

527/2 Inst. Sch.

2024

CONFIDENTIAL

This information is given only to facilitate preparation of examination.

Great care should be taken that the informaton given below does not reach the candidates either directly or indirectly.

INSTRUCTIONS FOR PREPARING SPECIMENS AND APPARATUS:

The teacher responsible for preparing specimens must ensure that candidates are provided with correct specimens and other materials as specified in these instructions. Specimens and solutions which have been assigned codes should be presented to candidates using those **codes only** and not any other identity.

A candidate is to be provided with each of the specimens. Where a specimen is to be used by more than one candidate, the teacher preparing specimens **must** devise a suitable system to enable the candidates to take turns at each specimen.

Each candidate should be provided with:

Specimen **A** – whole bean plant affected by anthracnose

Specimen **B -** Maize stalk bored by the stalk-borer

Specimen **C** – Sweet potato tuber (cut into two) affected by the sweet potato weevil

Specimen **D** – Couch grass (whole mature plant)

- 100 ml measuring cylinder
- 2 filter papers
- 2 beakers
- Water
- Stop clock
- pH chart
- Universal indicator
- 2 filter funnels
- Soil sample **X**
- Soil sample **Y**

END

Candidate's Name: ..……

Signature: ..……..

Random No.						Personal No.		

(*Do not write your School/Centre Name or Number anywhere on this booklet.*)

527/2
AGRICULTURE
Paper 2
2024
2 hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE

Paper 2
Practical

2 hours

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *compulsory examination items.*

Write your answers in the space provided using **blue** *or* **black** *ink.*

 Turn Over

Answer **all** *items in this paper.*

Item 1.

Fish farming is becoming a popular enterprise in Uganda. The demand for fish is high because it provides high value proteins for both humans and livestock.

A farmer established fish ponds in two different places, one in Gayaza and another in Kayunga. He stocked both ponds with tilapia fry. The water level in the Kayunga pond was adequate while that in the Gayaza pond remained low despite the inflow from the inlet pipe. The Gayaza pond wall was also unstable and the fish in this pond remained small. Soil samples **X** and **Y** were picked from the two ponds for investigation.

Task

Plan and carry out investigations on the two soil samples and based on your findings;

(a) Identify the soil sample from the Kayunga pond with reason(s).

(b) Explain to the fish farmer why the level of water in the Gayaza pond remained low.

(c) In one sentence, advise the farmer.

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Item 2.

Musa decided to grow three different crops on his one hectare of land which he had divided into plots. The crops included beans, maize, and sweet potatoes. Each crop was grown on a separate plot using the recommended spacing. The crops were established at different intervals, followed by a period of heavy rains. Of recent, Musa has observed that the appearance of his crops has changed. There was also a plant species **D** which was abundant in all plots. Musa wanted to eliminate it, so he slashed it down in all the plots, but after two weeks it had grown again.

Musa picked samples **A**, **B**, **C** and **D** from his plots for investigation.

Task

Carefully observe each of specimens **A**, **B**, **C** and **D** then;

(a) record and explain your observations on **A**, **B** and **C**.

(b) suggest how Musa can overcome the conditions observed in his plots.

END

527/2
AGRICULTURE
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE

Paper 2
Practical

SCORING GUIDE

527/2 sample expected responses.

1 sample expected responses

Aim of the experiment: To compare the amounts of water retained by soil samples X and Y.

Hypothesis: The Kayunga soil sample retains more water than the Gayaza sample.

Variables: Soil type and amount of water retained.

Materials and equipment: measuring cylinders, two soil samples (X and Y), filter papers/cotton wool, water, funnels, beakers, protective equipment.

Procedure:

1. Put on protective equipment for safety.
2. Label two measuring cylinders X and Y.
3. Plug a funnel using a filter paper/cotton wool and place it on the measuring cylinder labelled X.
4. Measure the required volume of soil sample X and place it in the funnel on cylinder X.
5. Measure the required volume of water and add it to the soil in the funnel on cylinder X while at the same time starting a stop clock. After 10 minutes remove the funnel from the cylinder, stop the clock and read out the volume of water collected in the measuring cylinder. Record your results. Repeat this procedure with soil sample Y.

Data presentation: Draw a table and record in it the volumes of soil used, amounts of water added and collected from each soil sample after 10 minutes.

Soil Sample	Volume of soil used	Volume of water added	Volume of water collected
Sample X			
Sample Y			

Analysis: compare the amounts of water collected/retained by the two soil samples.

Conclusion/Recommendation: soil sample X retained more water than soil sample Y. Therefore, soil sample X is the one from Kayunga since the Kayunga pond had adequate water.

a. Although the Gayaza pond was receiving water from the inlet pipe, most of the water drained through the unstable walls of the pond and through the pond bottom because the soil type (sandy soil) cannot hold/retain much water because of its wide air spaces.

2 sample expected Responses

a. Specimen A:

Observation: Dark brown to black sunken lesions/spots on stems, leaves and pods

Explanation: Anthracnose; a condition caused by a fungus.

Specimen B:

Observation: Wilting or drying of upper leaves; ragged irregular holes chewed in newly unrolled leaves; tunnels bored in the stalk

Explanation: destruction done by the maize stalk borer

Specimen C:

Observation: dark brown tunnels bored in the tuber

Explanation: damage caused by the sweet potato weevil

b. Control

Specimen A:

- Crop rotation
- Removing and destroying affected plants
- Treating seeds with appropriate fungicides.
- Plant resistant varieties

Specimen B:

- Crop rotation
- Apply ash or dry soil into the leaf funnel of young plants
- Destroy the remains of previous crops
- Deep ploughing to bury eggs and other stages of the borer
- Early planting
- Spraying with appropriate pesticide

Specimen C:

- Crop rotation
- Timely harvesting
- Using clean planting materials
- Application of systemic pesticides
- Maintaining soil moisture by irrigation

Specimen D:

- Deep cultivation to remove rhizomes which are later dried and burnt.
- Applying a systemic herbicide.

612/1
ART AND DESIGN
Paper 1
2024
1 hour 40 minutes

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

ART AND DESIGN

Paper 1
Art History and Studio Technology-Theory

1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections;* **A** *and* **B**. *It has* **four** *examination items.*

Answer **one** *item from each section.*

Answer **two** *examination items in all.*

Any additional item answered will **not** *be scored.*

All *answers* **must** *be written in the answer booklet(s) provided.*

 Turn Over

SECTION A: Art History

Either

Item 1.

During the pre-historic times, artists made a variety of artworks using different materials and tools from their environments. Their community and personal needs guided them on the kind of artworks they would produce. Their artworks would be either functional or decorative. The support pictures in **Figures A** and **B** show some of their works.

Fig. A

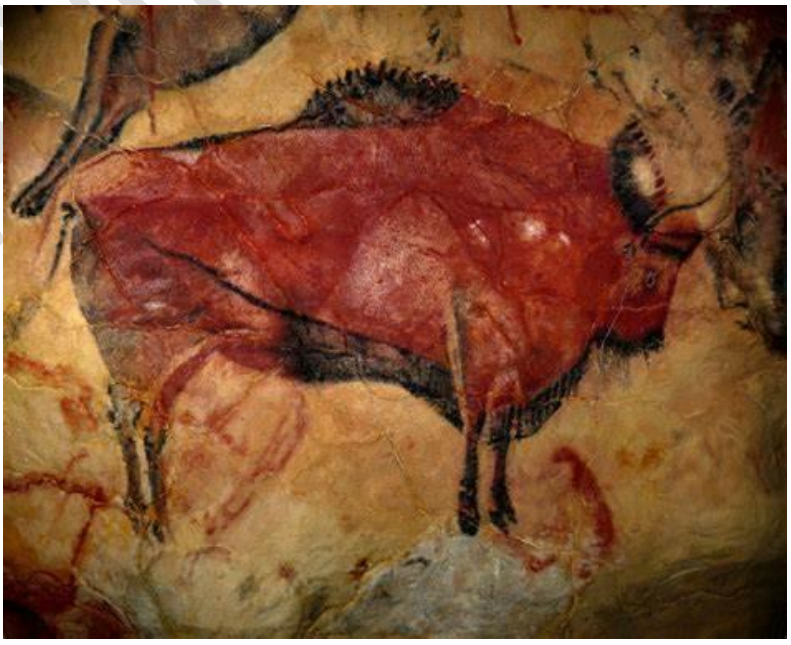

Fig. B

However, in Uganda today, some artists make artworks without necessarily using their environments. This has led to a few people appreciating art in their communities.

Task:

Produce a write-up advising Ugandan artists on how best they can make their artworks appreciated in their communities.

Or

Item 2.

The Government of Uganda has received financial support from one of its development partners. The support is intended to renovate one of the sports stadiums in the country. The renovation is intended to improve on the strength and beauty of the walls of the sports facility.

Recently, the contractors who have been given this task visited the ancient buildings of Greece and Rome. They appreciated buildings which were constructed as early as the 7th Century and are still strong and attractive to date. Some of the buildings they saw are in **Figures C** and **D.**

Fig. C

Fig. D

The contractors were told that architectural art keeps evolving and they now propose to borrow some of the knowledge and practice they got from the Greek and Roman buildings to improve on the strength and beauty of the stadium.

Task:

Assuming you are one of the contractors to renovate the sports stadium in Uganda, explain the architectural components you would borrow from the ancient Greek and Roman artists to strengthen and beautify the walls of the sports stadium.

SECTION B: Studio Technology

Either:

Item 3.

Jacob loves art. During his leisure time, he likes visiting art galleries and craft shops. One time he bought these two pieces (Figure **E** and **F**) from one of the Art galleries he visited.

Fig. E

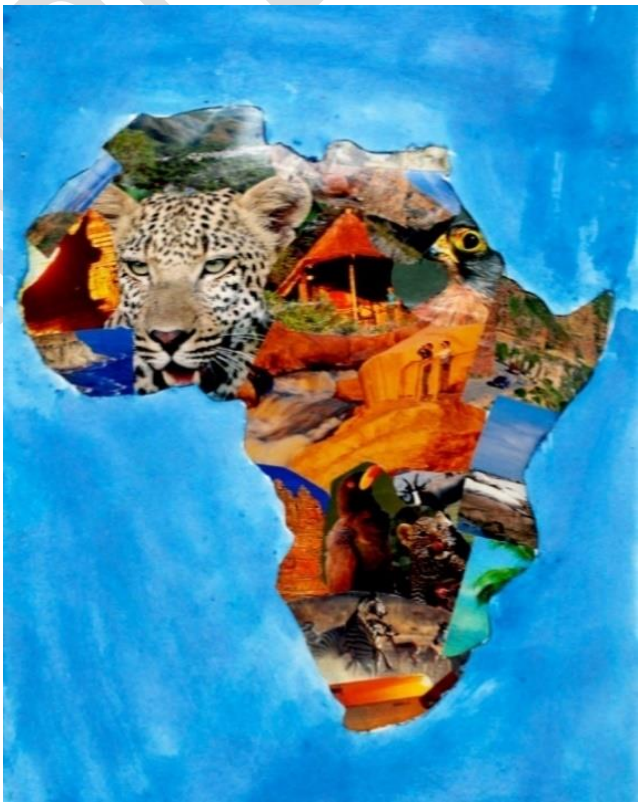

Fig. F

When he reached home, he hanged the two pieces in his sitting room. His children got excited about these artworks and they requested him to explain how the artworks are produced and the purpose they serve. Unfortunately, Jacob could not explain to his children and therefore had to look for help from someone else.

Task:

If Jacob selected you, explain in writing to his children what is required and how to produce anyone (either **Fig. E** or **Fig. F**) of the artworks above, and their purpose.

Or:

Item 4

In my village there is a man who was raised in the family of artists. Much as he was not trained at school, his love for art created him full time employment and that is how he has been able to earn a living. He has produced a number of artworks. Below is one of his artworks

 ;

Fig. G

The approaches in his artworks are unique and original and have helped him to be recognized at both national and international levels.

Recently, he was selected to represent Ugandan artists at the World Artists' Conference, but he is disadvantaged because he cannot read and write.

Task:
As a student of art and one of his admirers, produce a write up concerning the materials, his approach and why such artworks are produced.

END

612/1
ART AND DESIGN
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

ART AND DESIGN

Paper 1
Art History and Studio Technology-Theory

SCORING GUIDE

Sample Test Items and Their Scoring Criteria for Lower Secondary Art and Design Curriculum

612/1 ART AND DESIGN

PART A: Art History (Theory)

Either:

1. During the pre-historic times, artists made a variety of artworks using different materials and tools from their environments. Their community and personal needs guided them on the kind of artworks they would produce. Their artworks would be either functional or decorative. The support pictures below show some of their works.

Fig. A

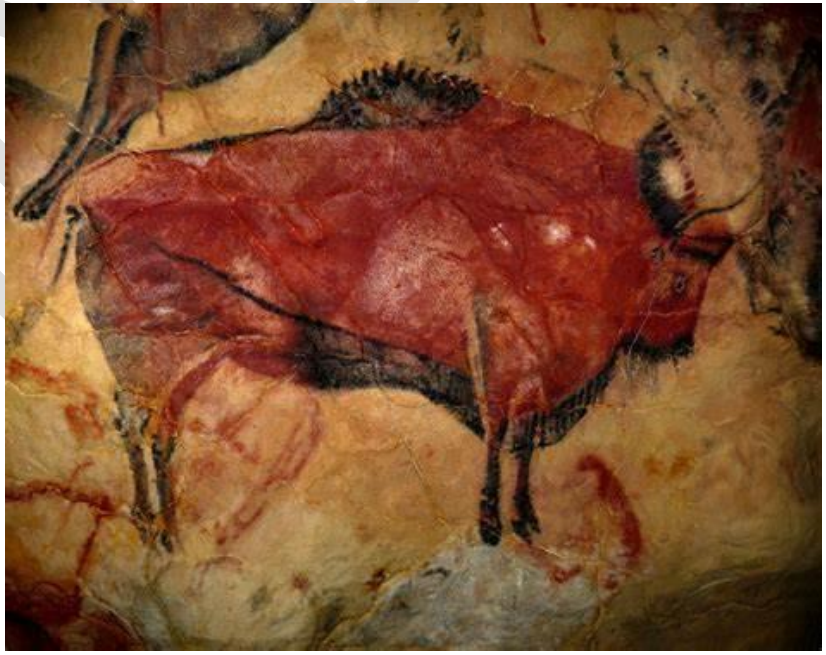

Fig. B

However, in Uganda today, some artists make artworks without necessarily using their environments. This has led to a few people appreciating art in their communities.

Task:

Produce a write-up advising Ugandan artists on how best they can make their artworks appreciated in their communities.

BASIS OF ASSESSMENT FOR THE ITEM

BASES	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA AND SCORES			
			0	**1**	**2**	**3**
Relevant/ Focused Introduction	• Interpretation of text/context • Interpretation of the support.	• Brief explanation of the use of the environment and community in art production of the prehistoric period. • Identification of figures A and B as African Tribal Stool and Pre historic rock painting (Altamira in Spain) respectively. **Any other relevant responses**	Interprets neither text nor support correctly	Interprets either text or support correctly but not both.	interprets both text and support correctly.	
Appreciation/ Analysis	• Problem identification • Provision of a relevant solution with explanations	**PROBLEMS** • Explains failure by Ugandan artists to produce artworks that address personal and community needs. • Explains failure by Ugandan artists to utilize social, cultural and material environment in art production. **SOLUTIONS** • Explains possible solutions to the problems identified namely; - Conducting research on personal	Not able to identify, provide a relevant solution or does not write anything	Identifies a problem but is not able to suggest a solution or provides a solution without identifying a problem.	Identifies a problem, suggests a solution but does not explain	Identifies a problem and provides relevant solutions through explanation

BASES	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA AND SCORES			
			0	1	2	3
		and community needs. - Utilizing materials and tools readily available from their environments. - - Adopting both traditional and emerging technology. - Adopting environmentally friendly practices in art production. - Promoting through avenues like exhibitions, symposiums, show casing artworks. - Developing and producing literature about their art. - Training/Skilling others. - Producing more functional art relevant to the community. **Any other relevant responses**				
Focused/ **Relevant Conclusion**	A relevant summary of the write-up	A relevant summary of the problem and solutions	Does not provide a summary of a write up	writes a relevant summary of the problem and the solution generated in the write up. Writes a relevant summary of		

BASES	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA AND SCORES			
			0	1	2	3
				the problem and the solution generated in the write up; indicating a summary of the problems and the possible ways that can be used to help in appreciation of Ugandan Art.		

Or:

2. Uganda Government has received financial support from one of its development partners. The support is intended to renovate one of the sports stadiums in the country. The renovation is intended to improve on the strength and beauty of the walls of the sports facility.

Recently, the contractors who have been given this task visited the ancient buildings of Greece and Rome. They appreciated buildings which were constructed as early as the 7th Century and are still strong and attractive to date. Some of the buildings they saw are below;

Fig C.

z 

Fig. D.

The contractors were told that architectural art keeps evolving and they now propose to borrow some of the knowledge and practice they got from the Greek and Roman buildings to improve on the strength and beauty of the stadium.

Task:

Assuming you are one of the contractors to renovate the sports stadium in Uganda, explain the architectural components you would borrow from the ancient Greek and Roman artists to beautify the walls of the sports stadium.

BASIS OF ASSESSMENT FOR THE ITEM

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	**1**	**2**	**3**
Relevant/ Focused Introduction	• A brief introduction about ancient Greek and Roman architectural components. • Interpretation of the supports in Figures C and DS .	• A brief explanation of architectural components. • Identifies ancient Greek and Roman art periods. • Identifies Fig C as the Roman Colosseum. • Identifies Fig D as Corinthian column.	Does not give any correct response or does not write anything at all	Learner writes 1-2 correct responses in a brief coherent statement	Learner writes 3-4 correct responses (and above) in a brief coherent statement	
Appreciation and Analysis	• Identification of components in Greek and Roman architecture. • Explanation of the identified components. • How the	• Learner identifies and explains the Doric, Corinthian, Ionic and Composite columns, Arches and Post-Lintel techniques. • Learner illustrates or gives examples of the above	Does not identify, explain, illustrate or give any architectural components	Learner identifies, explains and or illustrates/gives examples of 1-2 architectural components **or** Learner only identifies or explains or	Learner identifies, explains and illustrates/gives 3-4 architectural components	Learner identifies, explains, and illustrates/gives examples of 5-6 architectural components

	ancient Greek and Roman architectural components can be used to improve the stadium (Showing linkage)	components. • Links the ancient Greek and Roman architectural components to the improvement of the stadium		illustrates/gives 1-2 examples of architectural components		
Relevant/Focused Conclusion	Relevant conclusion about the ancient Greek and Roman architectural components and how they can improve on the wall of the stadium.	Learner gives a summary of the write up on the architectural components and how they can improve the wall of the stadium.	Learner does not provide a summary of the write up or writes nothing about the architectural components that can be used to enhance the strength of the walls of the stadium and its beauty.	Learner gives a relevant summary of the write up on the architectural components and how they can improve the walls and the beauty of the stadium in Uganda.		

PART B: Studio Technology (Theory)

Either:

3. Jacob loves art. During his leisure time, he likes visiting art galleries and craft shops. One time he bought these two pieces below from one of the Art galleries he visited.

Fig. E

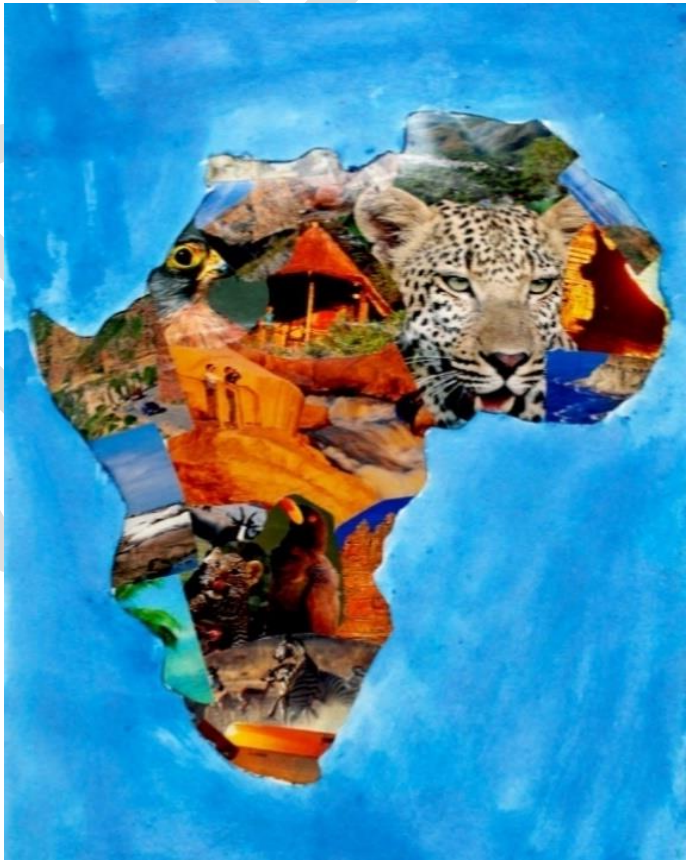

Fig. F

When he reached, home he hanged the two pieces in his sitting room. His children got excited about these artworks and they requested him to explain how the artworks are produced and the purpose they serve. Unfortunately, Jacob could not explain to his children and therefore had to look for help from someone else.

Task:

If Jacob selected you, explain in writing to his children what is required and how to produce anyone (either **Fig. E or Fig. F**) of the artworks above and their purpose.

BASIS OF ASSESSMENT FOR THE ITEM

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	**1**	**2**	**3**
Focused/Relevant Introduction	• Interpretation of message in text correctly • Interpretation of the support	• Interpretation of the text/context as a mosaic or collage. • Interpretation of **Fig E** as a **mosaic** • Interpretation of **Fig F** as a **collage.**	Incorrect interpretation of text /context as not being a mosaic or wrong interpretation of **Fig E** as not being a mosaic or incorrect interpretation of **Fig F** as not being a collage	Learner correctly interprets text/context as a mosaic or collage or interprets **Fig E** as a mosaic, or interprets **Fig F** as a collage		
Materials And Tools	Identifies and explains the necessary materials and tools	**Fig. E** – Mosaic **Materials** Fibres, coloured glass, coloured paper, adhesives/glue, support/hard surface	Does not explain or illustrate any material or tool used in either Mosaic or Collage artwork.	Explains and illustrates at least one tool or one material used in either Mosaic or Collage artwork.	Learner explains and illustrates one material and one tool	Learner explains and illustrates not more than 2 materials and two tools required in the production of either a

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	1	2	3
		Tools Cutters, Scissors, Gloves, Razorblades, Pencils, Pens. **Fig. F** – Collage **Materials** Paper, Fibres, Seeds, Glass, Photos, Paints, Fabric etc. **Tools** Pliers, Cutters, Gloves, Scissors, Pencils, Pens, Brushes, Pins, Nails etc.				Mosaic or a Collage
Elements of Art	Explains the use of elements in the artwork.	**Elements:** Space, line, shape, colour	Learner does not explain any element	Learner explains 1-2 elements	Learner explains 3-4 elements	Learner explains the use of more than 4 elements in the production of either a Mosaic or a Collage
Principles of Art	Explains the use of PRINCIPLES	**Principles:** Variety, balance, contrast, pattern, rhythm, harmony,	Does not explain any principle	Explains 1-2 principles	Explains 3-4 principles	Explains more than 4 principles in the production

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	**1**	**2**	**3**
	in the artwork.	variety.				of either a Mosaic or a Collage.
Techniques/ **Processes**	Explains the process followed in the production of the artwork	Concept development Preparation of materials and tools Trialing (sketches) Transfer of sketches onto a support (hard surface) Application of materials (tesserae) onto the surface Finishing	Does not explain any of the steps	Explains 1-2 steps in chronological order **OR** explains 2 or more steps in no chronological order	Explains 3-4 steps in chronological order	Explains 5-6 steps in chronological order
Purpose/ Use/ Function	Explains the importance/use/functions of the artwork	Explanations about the use/functions/ importance of the specific artwork **(Fig. E** or **Fig. F)** Decoration, income generation/employment, communication, study purpose, cultural preservation, tourism attraction	Does not explain any functions of the art work	Explains 1-2 functions of the art work	Explains 3-4 functions of the art work	Explains 5 functions of the art work (and above)
Focused/ Relevant Conclusion	Writes a focused summary on correct interpretation, materials and tools, elements	A summary of the write up of either **(Fig. E** or **Fig. F).**	Does not write a focused summary	Writes a focused summary		

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	1	2	3
	and principles, process and purpose.					

Or:

4. In my village there is a man who was raised in the family of artists. Much as he was not trained at school, his love for art created him full time employment and that is how he has been able to earn a living. He has produced a number of artworks.
And below is one of his artworks;

Fig. G

The approaches in his artworks are unique and original and have helped him to be recognized at both national and international levels.

Recently, he was selected to represent Ugandan artists at the world artists' conference. But, he is disadvantaged because he cannot read or write.

Task:

As a student of art and one of his admirers, produce a write up concerning the materials, his approach and why such artworks are produced.

BASIS OF ASSESSMENT FOR THE ITEM

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	1	2	3
Focused/ Relevant Introduction	Correct interpretation of the text and support.	Recognizes **Fig G**. as **a Tie and Dye** piece produced by an informally trained artist.	Learner does not recognize the artwork in the text **or** support	Learner recognizes the artwork as a Tie and Dye in either the text or the support	Learner recognizes the artwork as a Tie and Dye in both the text and the support	
Materials And Tools	Identifies and explains the necessary materials and tools	Identifies the materials and tools used in the artwork **Tools** Containers, heat source scissors, Cutters, flat surface, Gloves, Razorblades, Pencils, Pens. **Materials** Fixatives, assorted dyes, Fabric, water, threads, raffia, rubber bands etc.	Leaner does not explain or illustrate any material or tool.	Learner explains/illustrates one tool or one material	Learner explains/ illustrates one material and one tool	

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	1	2	3
Elements	Explains the use of elements in the artwork.	**Elements:** Space, line, shape, colour	Learner does not explain any element of tie and dye	Learner explains 1-2 elements of tie and dye	Learner explains 3-4 elements of tie and dye	Learner explains 3-4 elements required and their relevance in the production of Tie and Dye artworks.
Principles	Explains the use of principles in the artwork.	**Principles:** Variety, balance, contrast, pattern, rhythm, harmony, unity.	Does not explain any principle of tie and dye	Explains 1-2 principles of tie and dye	Explains 3-4 principles of tie and dye	Learner explains 3-4 principles and their relevance in the production of Tie and Dye artworks.
Techniques/Processes	Explains the process followed in the production of the artwork	Concept development Preparation of materials and tools Trialing (sketches) Manipulation of the materials Finishing (untying, drying, ironing, hemming) etc	Does not explain any of the steps followed in the production of a tie and dye art work	Explains 1-2 steps followed in the production of a tie and dye art work; in chronological order **OR** Explains 2 or more steps followed in the production of a tie and dye art work with no chronological order	Explains 3-4 steps followed in the production of a tie and dye art work in chronological order	Explains 5 and above steps followed in the production of a tie and dye art work in chronological order
Purpose	Explains the importance/use/functions of the	Explanations about the use/functions/ importance of the artwork (tie and	Does not explain any functions of the art work	Explains 1-2 functions of the art work	Explains 3-4 functions of the art work	Learner explains 5 and above functions of the art work

BASE	INDICATORS	EXPECTED RESPONSES	SCORING CRITERIA			
			0	1	2	3
	artwork	dye); Decoration, income generation/employment, study purpose, cultural preservation, tourism, table cloth, attire etc.				
Focused/Relevant Conclusion	A summary of the write up about the artwork.	Writes a focused summary on correct interpretation, materials and tools, elements and principles, process and purpose.	Learner does not write a focused summary	Writes a summary hinting on 2 of the following: - - materials - tools - Procedure - techniques - functions of the art work	Writes a summary hinting on 5 of the following: - - materials - tools - Procedure - techniques - functions of the art work	

612/2
ART AND DESIGN
Paper 2
2024
4 hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Examinations

ART AND DESIGN

Paper 2
Art Making-Practical

4 hours

INSTRUCTIONS TO CANDIDATES:

This paper has **one compulsory** *examination item.*

This paper will be done in **two** *sessions;*

(i) *Planning Session* (*1 hour- Morning*)
(ii) *Production Session* (*3 hours – Afternoon*).

Bulky materials such as cement, clay, stone, hard wood or materials which may lose the intended shapes and forms should be avoided.

Avoid using materials which may easily decompose in the process of transportation from the school to UNEB stores.

Read the scenario provided and then answer accordingly using the appropriate materials and tools to generate a suitable artwork/form.

Note:

Your product/work may be generated from any discipline of Art and Design for as long as it is in the direction of the scenario given.

 Turn Over

Art Making (Practical)

Item 1.

Uganda celebrates her independence on 9th October each year. This year 2024, many guests have been invited from different countries of the world. The organizers of this function intend to give their visitors artistic gifts. They are tasking each school that offers art to participate in the preparation. The gifts to be given to the invited guests should provide lasting memories about Uganda's independence.

Task:
As an art student, produce an artwork of your preference which the organizers will give to the invited guests as gifts.

END

612/2
ART AND DESIGN
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

ART AND DESIGN

Paper 2
Art Making-Practical

New Lower Secondary School Curriculum

SCORING GUIDE

Lower Secondary Art and Design Curriculum Sample Test Item- 612/2 and its Scoring/Success Criteria

Paper 2

Art Making (Practical)

1. Uganda celebrates her independence on 9th October each year. This year 2023, many guests have been invited from different countries of the world. The organizers of this function intend to give their visitors artistic gifts. They are tasking each school that offers art to participate in the preparation. The gifts to be given to the invited guests should provide lasting memories about Uganda's independence.

   Task:

   As an art student, provide an artwork which the organizers will give to the invited guests as gifts.

BASIS OF ASSESSMENT FOR ART MAKING (PRACTICAL)

BASIS	**INDICATORS**	**BANDS AND SCORES BASED ON ANALYTICAL RUBRIC**			
		0	**1**	**2**	**3**
Planning (Preliminary steps/sketches)	Brief supporting notes and or sketches about the concept(s) in the scenario	Does not provide sketches/plans, and supporting notes	Learner provides only sketches/plans with no supporting notes	Learner provides plans/sketches with supporting brief notes	

BASIS	INDICATORS	BANDS AND SCORES BASED ON ANALYTICAL RUBRIC			
Execution/Manipulation	• Personal style/technique • Demonstrates correct use of technology • Effective use of materials and tools		Demonstrates personal style/technique with minimal use of materials and tools	Demonstrates personal style/technique with moderate use of materials and tools	Demonstrates personal style/technique, with excellent use of technology, materials and tools
Elements	Space, line, shape, form, colour, texture, tone		Demonstrates minimal use of elements i.e. 1-2 Elements	Demonstrates moderate use of elements i.e. 3-4 Elements	Demonstrates effective use of elements. i.e.5 and more Elements
Principles	Balance, rhyth`m, unity, variety, proportion, contrast, pattern, movement, harmony		Demonstrates minimal use of principles i.e. 1-2 Principles	Demonstrates moderate use of principles i.e. 3-4 Principles	Demonstrates effective use of principles i.e. 5 and more Principles
Product/Output	Finishing; • Precision/accuracy, • Neatness • Appropriateness of the finishing technique.		Demonstrates minimal finishing by way of neatness/ precision/ accuracy.	Demonstrates moderate finishing by way of neatness/ precision/ accuracy.	Demonstrates excellent finishing by way of neatness/ precision/ accuracy and personal style of working.

Candidate's Name: .....

Signature: …….....

Random No.						Personal No.		

(*Do not write your School/ Centre Name or Number anywhere on this Booklet.*)

500/1
GENERAL SCIENCE
Paper 1
2024
1 ½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

GENERAL SCIENCE

Paper 1
Physics

1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections;* **A** *and* **B**. *It has* **four** *examination items.*

Section **A** *has* **two** *compulsory items. Answers to these items are to be written in the spaces provided.*

Section **B** *has* **two** *items. Answer* **one** *item from this section. Answers to these items* **must** *be written in the answer booklets provided.*

Any additional item answered will **not** *be scored.*

Answer ***three*** *items in all.*

SECTION A

Answer **all** *the items in this section.*

Item 1.

The local council chairperson discovered that his car engine could not start yet he had a party to attend later in the day. After checking the car, the chairperson discovered that the battery was completely discharged. A neighbour with a car whose battery was fully charged found the chairperson stranded but could not let the chairperson borrow her car. The neighbour instead suggested that the chairperson uses the fully charged battery to charge the discharged battery. Unfortunately, both of them were ignorant about how it could be done.

Task

(a) As a student of general science, advise the chairperson on what to do to solve the problem.

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(b) Help the chairperson understand what should be done for a battery to retain its charge for a long time.

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Item 2.

A carpentry workshop in an area uses heavy machinery that produces loud noise when working. This noise pollution has become an inconvenience to the neighbours. The sound from the workshop is of wavelength 0.4 m and neighbours are worried that it could be harmful to their ears. The workshop was constructed with holes in the side walls. The manager wondered how the sound produced in the workshop reaches and inconveniences the people in their neighbourhood. He has no money to install modern sound proof machines but he can manage to use locally produced materials that can minimize sound exiting the workshop. [Use *Speed of sound in air* = 330 ms^{-1}]

Task

As a student of general science physics;

(a) Explain to the workshop manager ;

(i) how sound from the workshop reaches people in the neighbourhood.

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(ii) how to reduce the amount of sound reaching the neighbours.

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(b) Help the neighbour to determine if the sound from the workshop has an effect on their hearing ability.

Hint: speed of sound in air = 330 ms^{-1} . Sound waves of frequency 20Hz - 20kHz are not harmful to human ears.

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SECTION B

Answer only **one** *item in this section.*

Item 3.

The headteacher of a certain school intends to construct an underground water tank of dimensions 2 m by 4 m by 6 m to store water for use during the dry season. He has been advised to put into consideration the design of the tank that will contain 45000 litres of water and how the water from the tank will be supplied to the entire school community.

Task:

(a) Propose ways in which the;

(i) design of the tank can be made in order to withstand the weight of the water.

(ii) water from the tank will be supplied to the school community.

(b) Help the headteacher determine if the proposed tank design will be enough to contain 45000 litres of water.

Item 4.

A worker in a certain mechanical workshop was assigned to make two gears for a simple machine by the supervisor. One of the gears labelled **X** was made to have 28 teeth. When gear **Y** was made, the effort of 5 N was applied to lift the load of 16 N through a distance of 8 m. This led to an increase in the temperature of the machine which reduced its output and lowered its efficiency to 80%. The supervisor was puzzled and demanded to know why the temperature of the machine increased, output reduced and the number of teeth on gear **Y**.

Task:

As a student of general science physics;

(a) Help the supervisor to determine the number of teeth gear **Y** had.

(b) Explain to the supervisor why there is a reduction in output and an increase in temperature.

END

500/1
GENERAL
SCIENCE
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

GENERAL SCIENCE

Paper 1
physics

SCORING GUIDE

GENERAL SCIENCE PHYSICS, 500/ 1

ITEM	EXPECTED RESPONSES/ ANSWERS
1	• Requirement, charging a battery: D.C source of greater emf than the battery to be charge • Positive supply is joined to the positive of the battery to be charged, and negative to negative • Engine of the battery to be charged is started while the connections are in place • When vehicle starts, its left on and connections removed • Chairpersons battery will be charged • Level of acid should be inspected and topped up • Acid never be added except in rare cases where spillage occurs. • Battery shld be charged regularly using recommended charging current • A battery should be charged once a month when not in use.
2(a)(i)	• Sound waves require a material medium for propagation, from one place to another. So air offers that medium. • Air particles that receive sound energy from the source transfer this energy to the sound energy from the source transfer this enegy to the neighbouring molecules • Process results into rarefactions and compressions as the source vibrates/ produces sound
(ii)	• Sound waves from machines through the holes need to be stopped to minimize the noise that goes to the neighbouhood. • Using locally produced materials like sponges, matresses, plywoods and other soft material are used to fix /cover hole and create soundproof on the walls inside.
(b)	• V = ʎf • 330 = 0.4 x f • F = 330/0.4 • F = 825 Hz • Since frequency of the sound waves from the work shop is in the range of harmless frequencies, the noise / sound they hear is not harmful to the ears
3(a)(i)	Design of the tank • Tank must be of thick walls at the base • Build the tank with materials that do not dissolve in water • Thick walls increase the area that supports the water and this reduces the pressure • Hence minimizing the effect of the weight of the water
(ii)	Supply of the water • A pump house to contain the pump at the underground tank should be put to pump water to the supply tank situated some level higher than all the buildings in the school. • Supply tank, supplies to other tanks situated in different locations/points of interest • Outlets on tanks should be at the bottom so that water comes out with high pressure

(b)	Volume of the tank = length x width x height 2 x 4 x 6 = 48 m^3 48 x 1000 = 48000litres Capacity of the tank is 48000 litres . Since the school requires 45000 litres, then the tank will be able to keep the required amount.
4.(a)	$\frac{80}{100} = \frac{MA}{VR}$, M.A $= \frac{L}{E} = \frac{16}{5}$ 0.8 $= \frac{3.2}{VR}$, VR = 4 4 $= \frac{No\ of\ teeth\ on\ X}{No.of\ teeth\ on\ Y}$ Ny = 28/4 = 7 teeth Gear Y will have 7 teeth
(b)	Reduction in out: • Machine doing work on its own parts other than in the load, this reduces the output • Friction reduces efficiency Increase in temperature: • Temperature increase is due to friction on the moving parts of the machine

Candidate's Name: .....

Signature: …….....

Random No.						Personal No.		

(*Do not write your School/ Centre Name or Number anywhere on this Booklet.*)

500/2
GENERAL SCIENCE
Paper 2
2024
1½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

GENERAL SCIENCE

Paper 2
Chemistry

1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections*; **A** *and* **B**. *It has* **four** *examination items*.

Section **A** *has* **two** *compulsory items. Answers to these items are to be written in the spaces provided.*

Section **B** *has* **two** *items. Answer* **one** *item from this section. Answers to these items* **must** *be written in the answer booklets provided*.

Any additional item answered will not be scored.

Answer **three** *items in all.*

 Turn Over

SECTION A

Answer **all** *items from this section.*

Item 1.

A girl was sent to a nearby shop to buy salt. It accidentally poured and got mixed with sand. She collected it and took it to her mother. Her mother simply poured water into the contents sieved off the sand using a piece of cloth. She kept the filtrate for future use.

Task:

As a general science chemistry student;

(a) Explain to the girl how it was possible for the mother to obtain pure salt.

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(b) Show the difference between the salt from the shop and the salt the girl took to her mother.

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(c) Give the importance of the filtrate at home.

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Item 2.

One morning the children found a panga left in the garden covered with a reddish-brown coat. The children asked their father to explain to them what had happened to the panga.

Task:
As a general science chemistry learner, write a message the father can deliver to the children. In your message include;

(a) how the brown coat occurred.

(b) how the brown coat affects the panga.

(c) How to avoid the brown coat in other similar tools.

SECTION B

Answer **one** *item from this section.*

Item 3.

The government of Uganda is planning to set up another copper production plant in Kilembe – Kasese District. The science club members in your school would like to know how the process of production will be carried out, its environmental impact and uses of copper.

Task:

As a general science chemistry student write a presentation you will deliver to the science club members.

Item 4

An investor wants to setup a factory to produce iron from its natural source in Muko- Kabale District. However, the community around would like to know how the industrial process is done, its environmental impact and the uses of iron.

Task:

As a general science chemistry learner, write a presentation you will deliver to the community.

END

500/2
GENERAL
SCIENCE
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

GENERAL SCIENCE

Paper 2
Chemistry

New Lower Secondary Curriculum

SCORING GUIDE

545/1 - CHEMISTRY DRAFT GUIDE / BASIS

Item 1

<table>
<tr><th>S/N</th><th>Basis of Assessment</th><th>Assessment Criteria</th><th>Scoring</th></tr>
<tr><td></td><td>category of substance with reason and example</td><td>Sand and (common) salt together formed a mixture since the two are only physically combined or not chemically combined or not chemically combined. The mixture can be separated by filtration since sand is insoluble in water and salt is soluble in water. Other substances which can form a mixture separated by filtration are sand and sugar.

The salt from the shop is a compound and the one she took to her mother is a mixture.</td><td>03</td></tr>
<tr><td></td><td>Properties of substances</td><td>Salt from the shop differ from that she took to her mother in the following ways:
<table>
<tr><td>Salt from shop</td><td>Salt she took to her mother</td></tr>
<tr><td>Cannot be separated by physical means</td><td>Can be separated by physical means</td></tr>
<tr><td>Has properties quite different from those of the elements in it</td><td>Has properties which is the average of the substances in it e.g. colour, taste.</td></tr>
<tr><td>Has a fixed composition is formed with energy change</td><td>Has variable composition is formed with no energy change</td></tr>
<tr><td>Has a chemical formula</td><td>Has no chemical formula</td></tr>
</table></td><td>03</td></tr>
<tr><td></td><td>Use of substance application of process</td><td>The filtrate (salt solution) is used for treating sore throat/canker sores/runny nose.</td><td>01</td></tr>
</table>

Item 2

S/N	Basis of Assessment	Assessment Criteria	Scoring
A	**CATEGORY / TYPE**	The panga is made of iron metal that is why on exposure to moisture and oxygen in the atmosphere it rusts. The brown coat on the panga is rust chemically known as hydrated iron(III) oxide. $4Fe_{(s)}+3O_{2(g)}+2H_2O_{(l)} \longrightarrow 2Fe_2O_3{*}H_2O$ Iron+ water + oxygen $\longrightarrow$ hydrated iron(III)oxide.	02
B.	**FUNCTIONS OF PRODUCTS. (How It Works)**	The iron metal in the panga rusts ,blunt and appear dull. The iron metal changes into a compound which is weaker and dull. The process occurs as shown in the equation below. Iron + oxygen + water $\longrightarrow$ iron rust $4Fe_{(s)}+3O_{2(g)}+2H_2O_{(l)} \longrightarrow 2Fe_2O_3{*}H_2O$ The rust is soft and easily falls off The rusting of tools of iron can be prevented by -oiling or greasing the tool -painting or use of tar on the tool -Using stainless steel tools.	03

Item 3:

S/N	Basis of Assessment	Assessment Criteria	Scoring
A.	**A. RAW MATERIAL**	Copper pyrites	02
	B. PROCESSOF PRODUCTION	The one obtained from the mines is crushed to form powder; the one is then concentrated by froth flotation to remove the Earthy materials. The concentrated one is then roasted in limited air to form copper(1) sulphide, copper(1)oxide and iron (II) oxide and sulphur dioxide. Silicon dioxide is then added to the heated mixture to remove iron (II) oxide inform of Iron (II) silicate (slag) The slag is run off. The Copper (1) sulphide is roasted in Air to form copper(1) Oxide and Sulphur dioxide , the copper(1) sulphide reacts with copper(1) oxide to form copper in impure form (blister copper). The impure copper is purified by electrolysis, the impure copper is made the Anode and copper (II) sulphate solution is the electrolyte white a sheet of pure copper metal is the cathode. During electrolysis, the impure copper dissolves forming copper(II) ions which deposited as pure copper at the cathode. The production process occurs in flotation tank Blast furnace and electrolytic cell. The copper obtained is ductile, malleable, therefore its melted and shaped into electrical cables for electricity transmission.	03
	Side effects and mitigation	SO_2 is a by-product in the production process, of copper, which when allowed in atmosphere causes acid rains which destroys buildings erodes rocks , and spoils plants . Also acid rains lower the PH of water in water bodies like lakes and rivers which affects aquatic life.	03

		Sulphurdioxide also affects the respiratory organs of humans and other animals. **Mitigation/Control/Prevention**. Regular monitoring of the vessels and machines during the copper production process to minimize SO2 escape into the atmosphere. Conversion of SO_2 into Sulphuric acid that can be used for other various purposes like in car accumulators. Water and soil pollution Extraction of copper also yields other heavy metals like silver, cobalt , zinc which get into water bodies for domestic and animal use and cause cancer leading to loss of life. **Mitigation** The wastes from the mines should be treated to remove heavy metals to avoid their exposure to humans and animals to avoid heavy metal poisons/cancers. **Land degradation** Improper disposal of effluent and other wastes, leads into loss of soil fertility .This consequently causes poverty and famine. **Mitigation** There is need for proper treatment and recycling of industrial waste before discharge into environment to prevent water and soil pollution.	
	Social benefits	Employment opportunity, the impact is improved income and better lively hood. Production of fertilizers and other products like sulphuric acid which reduces their costs in the community . the fertilizer improves soil productivity and acid is used in car batteries. Increased tax base and foreign exchange in the community.	03

	Uses of the product	Copper is used to make: Electricity cables because it's a good conductor of electricity Coils and money because it's malleable. Ornamental materials like wedding rings because luster is good .Alloys like Bronze.	02

Item 4

S/N	Basis of Assessment	Assessment Criteria	Scoring
A.	**RAW MATERIAL**	Haematite (iron ore)	02
B.	**PROCESS OF PRODUCTION.**	Reaction vessel is Blast furnace. Iron is extracted from iron ore in a large container called a blast furnace. The ore haematite coke limestone and hot air are fed into the blast furnace. Coke burns in oxygen to form. Carbon dioxide which is reduced by carbon to carbon monoxide . carbon + oxygen ⟶ Carbon dioxide Carbon dioxide + carbon ⟶ carbon monoxide. Carbon monoxide reduces iron one to form iron because carbons is more reactive than iron ash shown below: iron (III) oxide + carbon monoxide ⟶ iron + carbon dioxide. Process of purification: Calcium carbonate in lime stone decomposes under high temperature to form calcium oxide and carbon dioxide	03

		Calcium carbonate ⟶ calcium oxide +carbon dioxide Calcium oxide then reacts with impurities of silicon(iv) oxide (sand) and aluminium oxide in the iron ore (haematite) to produce molten slag which is calcium silicate or calcium aluminate. Calcium oxide + silica ⟶ calcium silicate Calcium oxide + aluminium oxide ⟶ calcium aluminate The less dense slag floats on top of the iron and flows out of the furnace. The iron obtained from the furnace is called pig-iron and cast iron.	
C	**SIDE EFFECTS OF THE PROCESS OF PRODUCTION AND MITIGATION**	The extraction process and production of iron bars produces air pollutants from diesel, petrol in generators. Carbon dioxide produced accumulates in the atmosphere forming a layer that traps excess heat from the sun causing global warming Mitigation First growing trees must be planted to absorb carbon dioxide. Carbon monoxide from the furnaces is poisons. Carbon from the furnace can be burnt as fire but it must not be released into the air unless converted to biologically harmless converted to biologically harmless carbon monoxide. Communities around the extraction site suffer from noise, air and land or water pollution **Mitigation** Recycle of the metal and other products may be considered.	03

D	**SOCIAL BENEFITS/USES OF PRODUCT**	Employment opportunities to the people in the community. The iron bars produced can be used for construction. Source of revenue and taxes which help the government to pay civil servants, building hospitals and schools and improve livelihood and health standards. Pure iron can be used to: make iron sheets for roofing; make doors and windows strong; make alloys like steel with better properties of strength and durability; making ornaments and Jewellery; making new-craft parts; making auto mobile parts like pistons and plugs etc.	03

Candidate's Name: .....

Signature: …….....

Random No.						Personal No.		

(*Do not write your School/ Centre Name or Number anywhere on this Booklet.*)

500/3
GENERAL SCIENCE
Paper 3
2024
1½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

GENERAL SCIENCE

Paper 3
Biology

1 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections*; **A** *and* **B**. *It has* **four** *examination items*.

Section **A** *has* **two** *compulsory items. Answers to these items are to be written in the spaces provided.*

Section **B** *has* **two** *items. Answer* **one** *item from this section. The answer to this item* **must** *be written in the answer booklets provided*.

Any additional item answered will not be scored.

Answer **three** *items in all.*

SECTION A

Answer **all** *the items in this section.*

Item 1.

Mr. Bagonza, whose farm is located on a hilly area grows crops and is worried after a heavy rain washed away part of the soil in his garden with some crops down into the river. Other plants were left with their roots exposed. Mr. Bagonza largely depends on farming and a natural environment for energy sources like firewood, burning charcoal for home use and sale. The District Environment officer said that Mr. Bagonza is responsible for the problems he is facing. Mr. Bagonza wishes to understand how he is responsible for the problems so as to solve the problem without moving away from his land.

Task

(a) Help Mr. Bagonza understand the problems caused by his activities and the natural resources affected.

_____

_____

_____

_____

_____

_____

(b) What advice can you give to Mr. Bagonza on how to live in the same place without causing much harm to the environment.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(c) Why is it important for Mr. Bagonza to conserve his environment?

Item 2.

Mr. Ali planted beans in his garden having mature sugarcanes. Just before the beans could flower, a heavy hailstorm hit the garden and all his crops were destroyed. After a month, Ali was surprised to see that there were new young sugarcanes growing but no new beans were growing.

Task

(a) Identify the plant structures affected by the hailstorm.

(b) Explain how the hailstorm affected the normal functioning of the crops

(c) Explain why Ali did not have to worry about his sugarcanes, but instead get worried about beans.

_____

_____

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_____

_____

_____

SECTION B

Answer **one** *item from this section.*

Item 3

Three brothers, John, Khalid and Peter live together in a single room that is poorly ventilated. Peter smokes every day in the room in presence of his brothers. Peter later developed health complications including heavy coughing and chest pain. Four months later, John and Khalid also began coughing heavily, and they accused Peter of being responsible for their condition, a claim Peter denied.

Task

Explain to Peter the process by which his behaviour affected his brothers and possible health challenges faced, advise them on how to live a healthy lifestyle.

Item 4

Kirabo, a mother of four boys is currently pregnant expecting her fifth baby however her husband threatened to beat her if she produces a baby boy again since he wants to have a girl in his family. Due to the pressure and stress from her husband, Kirabo has resorted to heavy drinking of alcohol and missing antenatal visits.

Task

Help Kirabo's husband understand why the sex of the baby is not the choice of his wife but biologically determined. Explain the effects of Kirabo's behaviour on her body and the unborn baby and advise the family on how to overcome the challenges they are facing.

END

500/3
GENERAL
SCIENCE
Paper 3
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

GENERAL SCIENCE

Paper 3
Biology

SCORING GUIDE

SECTION A

1. a) Farming on a hilly area increased chances of soil erosion, which swept away soil into the river. This exposed the plant roots, and led to the destruction of soil living organisms, loss of soil, vegetation and other organisms.

Charcoal burning led to destruction / loss of vegetation cover inform of trees. This exposed the soil to agents of erosion like running water. It also increased chances of global warming. This activity affected natural resources like wild animals by destroying their habitats and vegetation itself.

Air pollution as a result of charcoal burning can lead to respiratory diseases which can affect humans and other animals as natural resources.

The silting of swamps and rivers as a result of soil deposition can lead to flooding. This affects / blocks aquatic habitats and can lead to death of water living organisms.

b) *Advice to Mr. Bagonza*

- Practice better farming methods such as terracing, contour ploughing on the hills to reduce chances of soil erosion.
- Plant trees on the hill to hold the soil particles together so as to avoid soil erosion.
- Should also adopt better / alternative sources of fuel other than using charcoal.
- Should plant more cover crops in the swamp to overcome silting, and ensure firm holding of soils in the swamp.
- Desilting the rivers / swamps.

c)

- The vegetation when conserved can facilitate the process of rain formation, curb global warming and act as habitats for wild life.
- Desilting of rivers restores the aquatic ecosystem which provides better habitats for aquatic life forms like fish, frogs etc.
- Preserving soil maintains its good properties for production of food for human consumption.

2 a) *plant structures affected*

- Leaves
- Stems
- Roots

b) *the* hailstorms broke off and destroyed the leaves for both sugarcanes and beans. This affected the sites for photosynthesis. Therefore, the plants could not manufacture food to support life processes.

Stems were destroyed; which are useful in transporting raw materials and products of photosynthesis. This affected the normal plant functioning.

The roots of beans were also affected and these could not absorb water required for the survival of the plants.

c) Sugarcane stems have buds, which grow new shoots and these emerge as new sugarcane plants.

The sugarcane as well have stored food in the stems inform of sugars, which are used to support the process of growth of new structures like the shoots and buds.

Through the process of photosynthesis, the sugarcanes manufacture and store food inform of sugars in the stems which are used to support the process of regeneration / regrowth.

SECTION B

3. Peter's brothers breathed in inhaled the smoke from peter's smoking of cigarette.

During breathing in, the external intercostal muscles contract, while the internal intercostal muscles relax. The diaphragm muscles also contract, hence the diaphragm flattens. This increases the volume of the thoracic cavity and the lungs, while the pressure decreases below the atmospheric pressure.

Air including smoke from peter rushes into the lungs through the trachea. This smoke proceeds to the alveoli, where it is exchanged and causes the side effects like coughing after blocking the air passages.

Possible health challenges faced by the brothers

- Suffocation due to poor ventilation.
- Irritations / itching in the trachea due to smoke.
- Chest pain as a result of over coughing.
- Over coughing due to blocked air passages / air sacs.
- Lung cancer in the long run.
- Bronchitis.

Advice on *how* to live a healthy lifestyle

- Improve on the ventilation of the room.
- Brothers should go for treatment for cough and chest pain.

- They should go for cancer screening / testing.
- Improve on diet to contain especially fruits.
- Peter should go for medical counselling.
- Replace smoking with a more healthy lifestyle habit.

4. *Sex determination*

Sex is determined by two chromosomes X and Y. the mother has only X while the father has both X and Y. During fertilization, the male sperm / gamete containing either X of Y fuse with the female gamete / egg / ovum with X chromosome.

If the X sperm fuses with the egg, a baby girl is formed. If the Y sperm fuses with the egg, a boy is formed. Therefore, the baby's sex is determined by the chance of a given type of sperm cell fertilising the egg.

Effects of Kirabo's behaviour

- Increased risk of miscarriage.
- Increased risk of premature birth and still birth.
- Babies born with low birth weights.
- Risk of developing pregnancy complications when she misses antenatal visits.
- Liver and digestive diseases/ complications as a result of alcohol consumption.

Advice to overcome the challenges

- Should stop drinking alcohol.
- Should go for regular antenatal visits.
- Seek marital counselling to discuss about her challenges.
- Practice good nutrition and diet.

840/1
INFORMATION AND COMMUNICATIONS TECHNOLOGY(ICT)
Paper 1
2024
2¼ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

INFORMATION AND COMMUNICATIONS TECHNOLOGY

Paper 1
Theory

2 hours 15 Minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections;* **A** *and* **B**. *It has* **five** *examination items.*

Section **A** *has* **one** *compulsory item.*

Section **B** *has* **two** *parts;* **I** *and* **II**. *Answer* **one** *item from each part.*

Answer **three** *examination items in all.*

Any additional item(s) answered will **not** *be scored.*

All *answers* **must** *be written in the answer booklet(s) provided.*

SECTION A

Answer the item in this section.

Item 1.

Isaac is currently running a stationery shop where he sells scholastic materials and provides photocopying services only. On daily basis he gets clients inquiring about passport size photographs, business reports, statistical data and formal letters. He is concerned that he may lose some of his customers due to limited services. He contacted a company dealing in ICTs which sent him a brochure bearing some of the ICT tools shown below.

1

IMAGE **1**: Source- https://www.monitor.co.ug/uganda/magazines

2

IMAGE **2**: Source- images of digital devices - Search (bing.com)

Given limited knowledge on the ICT tools displayed on the brochure, Isaac failed to select which ICTs would be appropriate for his business

Task

(a) Guide Isaac to select the appropriate ICT tools that will help him improve his services and retain his customers.

(b) Advise Isaac on how best he can maintain the ICT tools in good working condition.

SECTION B

This section has **two** *Parts;* **I** *and* **II.**

PART I

Answer **one** *item from this part.*

Item 2.

A few days ago, thieves broke into the computer laboratory of a school and stole various equipment. The network server was amongst the stolen equipment and a lot of the school's important information was lost. As it all happened, some computer parts were broken and scattered all over the laboratory floor.

The following morning, the laboratory attendant collected the damaged parts in a box and dumped them at the garbage pit assuming that most of them would no longer function.

Box of damaged computer parts and dumped items

Source: www.boldbusiness.com

Task

(a) Advise the laboratory attendant and the school management on what could have caused such occurrences and the measures they should put in place to prevent similar incidences.

(b) Demonstrate how the school and other partners can manage the items dumped at the garbage pit.

Item 3.

The youth today are fond of spending most of their time using ICT mobile devices while on the road and being online late in the night, as reflected in images 1 and 2.

IMAGE 1: *https://missionaryjill.com/wp-content/up 1*

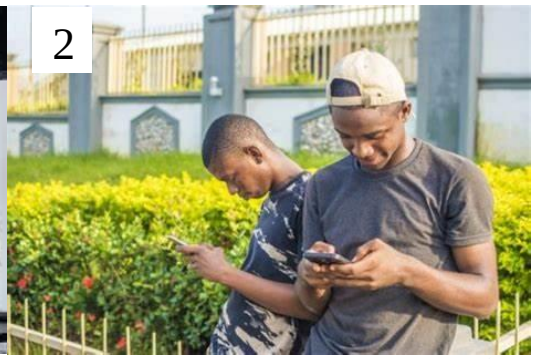


IMAGE 2: * 1*

Majority of the youth are not aware of the consequences of continuous use of ICTs and some have suffered ***health issues***, ***data loss*** and ***breach of privacy***.

The newly elected chairperson of the youth at the district wishes to address this challenge through a sensitization campaign on the theme "ICT's and the youth today".

Task

You have volunteered to talk to the youth. Prepare a presentation about these consequences and how they can be avoided.

Part II

Answer **one** *item from this part.*

Item 4.

Noeline is a qualified primary school teacher who has taught in a nursery school for quite some time. She has been earning a monthly salary of UGX 200,000 though not promptly paid.

She recently landed on her dream job in a newspaper advert below.

Sure Junior School

Website: https://www.sjsu.ac.ug

Vacancy title: Primary Teacher
Salary: UGX 1,000,000 monthly
Level of Education: Diploma in Education Primary

Job application procedure: Send your Application, Academic credentials and CV to: info@sjs.ac.ug
Deadline of this Job: Friday, April 26, 2024

The school requires applicants to submit their application letters, Curriculum Vitae (CV) and academic documents online. However, Noeline's academic documents are kept somewhere in an envelope and she does not know how to go about this process.

Task

If Noeline approaches you to guide her through the procedure, provide a write up showing required steps and ICT tools that Noeline should use to successfully submit her job application.

Item 5

The Government of Uganda wishes to boost all Saving and Credit Cooperative Organizations (SACCO) in various districts by providing them with funds.

A women's SACCO wishes to apply for the funds and the group does not want to miss out on this golden opportunity. They are required to access an online template, fill it with the SACCO details before the deadline which is soon.

The chairperson of the SACCO finds it challenging to download, fill and submit the filled form to the district website since she lacks ICT skills.

The form to be filled is shown below.

PROJECTS APPLICATION FORM

PROJECT IDNO: .....

(Assigned by the District Focal Point Person after Project Approval)

1.0 Project Identification Information:

1.1 Project Name:_____

1.2 Component *(i.e. Skills Development or Livelihood Support)*: _____

1.3 Sector *(e.g. Agriculture, Trade & Industry etc)*:_____

1.4 Project Type (*e.g. Dairy Production, Carpentry, Fish farming etc.*):_____

1.5 Project Location:

Village/Cell: _____ Parish/Ward: _____

Sub-county/Division/Town Council:_____

District: _____Location *(tick appropriate box)*: Rural [ ] Urban [ ]

1.6 Project Contact Person *(Name & Telephone of Chairperson of the Interest Group):*

Name:_____Telephone:_____

Task

The Chairperson approaches you to guide her through the required procedure. Provide a write-up indicating the necessary steps and ICTs to be used by the Chairperson.

END

840/1
INFORMATION AND COMMUNICATIONS TECHNOLOGY(ICT)
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

INFORMATION AND COMMUNICATIONS TECHNOLOGY(ICT)

Paper 1
Theory

New Lower Secondary Curriculum

SCORING GUIDE

ITEM I

Competency (Basis of assessment)	**Evidence: Skill/ability exhibited/Score**	**SCORE**
Provides a focused introduction	Produces a focused introduction	**01**
Describes a minimum number of ICT tools/software that are required to setup a functional system.	• Identifies and describes **5** or more of the listed ICT tools/Software which will help Isaac improve his services and retain customers Computer set Digital camera Scanner Printer Application Software • Identifies and describes **3-4** of the listed ICT tools/Software which will help Isaac improve his services and retain customers • Identifies and describes **1-2** or more of the listed ICT tools/Software which will help Isaac improve his services and retain customers • Identifies and describes **1** of the listed ICT tools/Software which will help Isaac improve his services and retain customers • No response	**04** 03 02 01 00
Explains maintenance of ICT tools in good working condition	• Identifies and explains **5 or more** management measures of the listed ICTs/software • Identifies and explains **3-4** management measures of the listed ICTs/software • Identifies and explains **1-2** management measures of the listed ICTs/software • Identifies only **1** management measure of the listed ICTs/software • No response	04 03 02 01 00
Conclusion	Provides a relevant conclusion *(solution/judgement/recommendation)*	**01**
Format of presentation	A formal document: Either a Report, a letter, a CV or Proposal	**01**

Competences	Basis of assessment	Expected responses
T1(a-c) T2(a-d) T15(a-c) T16(c)	Mentioning relevant tools	• needs a desktop computer/Laptop with at least a i5 core processor(4.0GHz), 500GB of hard disk and 4GB of RAM. This computer will be capable of handling the kind of work at Mr. Bogere's business since he will be in position to process documents, edit photos as required by his clients.
T9 (a) T10(a) T12(a)	Explaining how the tool is used	• Un interruptible power supply unit. This device helps the user to continue working for a short time in case power goes off. This enables a user to save the client's work. The UPS will be connected to the wall socket, then the computer and its devices get from it. It also regulates the voltage reaching the devices. • The software. Software means electronic instructions that help the hardware accomplish tasks. • To prepare formal letters, business reports and organizing statistical data. For that he needs to obtain MS office suite. • In order to produce good photos and passport size photographs, He should install Adobe suite with packages such as photoshop, illustrator which can be used for photo editing. • The printer. A printer is a peripheral device that converts soft copy into hard copy. Digital-colored **all in one** printer with a speed of about 20 pages per minute to handle tasks such as scanning, printing passport size photos, formal letters and business reports and so on. A printer is connected to a computer using a data cable then its drivers can be installed. • has clients who inquire about photos. A digital camera will be used for taking clients photographs and passport size photos. The photos can then be transferred from the camera to the computer using USB cables, edited and then printed. • For clients with hard copies to be converted to softcopy, the tool needed is a scanner. This changes hard copy into soft copy.
	Management/ maintenance	• Cover ICT tools to avoid dust • Installing antivirus to protect ICT against virus attacks. • Use UPS to protect ICT tools from unstable power supply. • Switch off ICT tools after use • Regular servicing of ICT tools to keep them in good working conditions. • Regular updating of software

ITEM 2

Competency (Basis of assessment)	**Evidence: Skill/ability exhibited/Score**	**Score**
Provides a focused introduction	Produces a focused introduction	**01**
Explains the causes of breaking into the lab and theft of computer lab equipment	• Identifies and explains ***more than 4*** causes of insecurity in the laboratory. • Identifies and explains ***4*** causes of insecurity in the laboratory. • Identifies and explains ***2-3*** causes of insecurity in the laboratory. • Identifies and explains ***1*** causes of insecurity in the laboratory. • No response	**04** **03** **02** **01** **00**
Provides security measures and mitigation for improper-waste management	• Explains 3 measures, identifies key stake holders and their roles in e-waste management (1 measure for each listed stakeholder) o School Administration o Lab Attendant o Students o Community • Explains **less than 3** measures and identifies key stake holders in e-waste management of the listed stakeholders • Identifies and explains ***more than 4*** measures of insecurity in the laboratory. • Identifies and explains ***4*** measures of insecurity in the laboratory. • Identifies and explains ***2-3*** measures of insecurity in the laboratory. • Identifies and explains ***1*** measure of insecurity in the laboratory. • No response	**04** **03** **02** **01** **00** **01** **00**
Conclusion	Provides a relevant conclusion	**01**
Format of the presentation	A formal document	**01**

T1 d **T14 (a-c)** **T16 (a&b)**	**Explains the causes of breaking into the lab and theft of computer lab equipment and provide suitable mitigation/measures.** - **Approaches that can be taken to ensure proper e waste management and the how they can be applied**	- Weak doors, these make breaking in or forceful entry easier. This can be solved by using strong metallic doors with strong burglar proofing. - Weak or easy to manipulate locks/pad locks. These become easy to break or open. It can be solved by using strong locks or padlocks. - We can also use access control systems e.g., use of key cards or biometric scanners to control physical access. - Exposure of important hardware components e.g the server, external hard drives(keeping them in easy to reach areas. These have to be locked away in drawers, cabins or kept out of the computer laboratory. - Failure to monitor the computer laboratory especially in the night when its not in use. This gives ample time to thieves to plan and steal. It can be overcome by installing CCTV cameras/ 24/7 Surveillance systems. - It can also be solved by installing alarm systems that can go off and produce noise to notify the security personnel on the forceful entry. - Failure to mark, label hardware components which makes them easy to target and also difficult to find or trace in case of theft. Asset tagging or labelling makes it easy to track for items when stolen, we can also attach tracking devices to the important hardware components like the Server computer. - Inadequate Physical Inspection. There's supposed to be regular inspection of the laboratory to identify and solve any potential damage. - Discarded computer components contain toxic substances like lead, mercury, etc. these pollute soil and water. The school administration/teachers can reuse some of these components e.g by crafting them onto display boards for demonstration. - Improper e-waste disposal may lead to data breaches and identity theft. You may not know who will pick on the hard disk, flash disk and any other storage media you throw to the dust bin. The lab attendant may first try to repair or take the component for repair to extract off the information. - Health risks; improper handling and discarding of e-waste can cause health issues such as skin disorders, respiratory disorders, etc. to people such as waste pickers, children. Its important therefore to sensitize the school community/students on the right means of handling e-wastes. -You can also donate the out of use computers and other components to ICT repair shops. - Air pollution. Once thrown at the garbage pit by say lab attendant, e-waste may be burnt which exposes the community to harmful gasses. The school administration may sell off or donate the hardware components that are no longer in use.

Competences	Basis of assessment	Expected responses

ITEM 3

Competency (Basis of assessment)	Evidence: Skill/ability exhibited/Score	Score
Provides a focused introduction	Produces a focused introduction	**01**
Explains the consequences of continuous use of ICT	• Identifies and explains ***6 or more*** causes/consequences of ICT usage from the listed categories. *(2 for each of the mentioned challenges)* -health issues, -data loss and -breach of privacy • Identifies and explains ***4-5*** causes/consequences of ICT usage from the listed categories. • Identifies and explains ***2-3*** causes/consequences of ICT usage from the listed categories. • Identifies and explains ***1*** cause/consequence of ICT usage from the listed categories. • No response	**04** **03** **02** **01** **00**
Provides mitigation/measures	• Identifies and explains ***6 or more*** measures for the listed categories of challenges. *(2 for each of the listed challenges)* -health issues, -data loss and -breach of privacy • Identifies and explains ***4-5*** measures for the listed categories of challenges. • Identifies and explains ***2-3*** measures for the listed categories of challenges. • Identifies and explains ***1*** measure for the listed categories of challenges. • No response	**04** **03** **02** **01** **00**
Conclusion	Provides a relevant conclusion	**01**
Format of the presentation	A formal document	**01**

Assesses system security, safely uses ICTs and manages E-waste *Topic 1 d* *Topic 7 c* *Topic 8 (a-c)* *Topic 16 (a-b)*	Consequences of exposure to ICTs and the mitigation strategies	*<u>Consequences of continuous use of ICT tools.</u>* *Malware attacks like* - *Computer viruses. Copy themselves and corrupt the system* ***Mitigation.** Install an anti-virus, regularly update it and scan to detect, disinfect and delete viruses.* - *Trojan horses. Appears legitimate but performs malicious tasks* - *Worms. Self-replicate after breaching the system among others* ***Mitigation.** Do not use pirated software as this can be an entry point for Trojans and worms.* - *Phishing. sending emails that appear legitimate in order to induce individuals to reveal personal information* ***Mitigation.** Do not download information or open e-mails from untrusted sources* - ***Eavesdropping/ sniffing/ spoofing.** it involves intercepting and reading the data packets traversing through the network* **Mitigation.** *Encrypt the information travelling over the network* - ***Denial of Service (DoS). This overwhelms the network with excessive requests that exhaust the resources and make it inaccessible*** - ***Distributed Denial of Service (DDoS). The traffic flooding the network comes from multiple sources. Mitigation. Use of firewalls to block traffic from suspicious sources*** - **Short circuits. Caused by naked wires, power surges and liquid spills.** **Mitigation. Insulate all naked wires, don't brink liquids next to the ICTs and use UPS/ voltage stabilizers** ***Health risks*** - ***Eye defects like blurred vision, itchy, dry or red eyes. mitigation.** Use anti – glare screens* - ***Back pain, caused by sitting in a bad posture or for long*** ***mitigation.** Sit upright and get poses or breaks while using a computer* - ***Wrist pain, caused by injury, over use of the hand or repetitive stress.*** ***Mitigation. Set your work station right to avoid straining the hand, get breaks while using a computer and exercise the hand***

ITEM 4

Competency (Basis of assessment)	**Evidence: Skill/ability exhibited/Score**	**Score**
Provides a focused introduction	Produces a focused introduction	**01**
Describes procedure	• Identifies ***6 or more*** relevant steps with the necessary ICT tools • Identifies ***4-5*** relevant steps with the necessary ICT tools • Identifies ***2-3*** relevant steps with the necessary ICT tools. • Identifies 1 relevant step • No response	04 03 02 01 00
Follows a logical flow	Complete logical flow. Partial/incomplete Logical flow No logical flow	02 01 00
Conclusion	Provides a relevant conclusion *(solution/judgement/recommendation)*	01

Competences	**Basis Of Assessment**	**Expected Responses**
T3 (a,b) **T7 (a,b)** **T11 a**	**Steps/processes/procedures Followed to apply online**	**- Stage 1: Converting academic documents from hard copy to soft copy** **Tools:** scanners, scanning apps like CamScanner (CS), PC **Application:** get the document open the flatbed scanner cover place it there and cover, then press the scan button and save the documents. **Stage 2: Creating a CV** **Tools:** PC, desktop publishing or word processing software **Application:** start the computer. Go to all programs, Choose the appropriate MS-Publisher, Choose Resume, blank, then create. Design according to the layout apply appropriate graphics save the publication as ***CV*** on a hard disk/flash disk/phone/CD/email. **Stage 3: Typing an application letter by use of Word processors** **Tools:** PC, Word processors **Application:** Start the computer. Go to all programs, Choose blank document, type the letter, edit, format and save the document as ***Application Letter*** on a hard disk/flash

		disk/phone/CD/email. **Stage 4: convert all documents to PDF** **Tools:** PC, word processor, Desktop publisher **Application:** Open the document of interest Select file, save as Set the save as type to pdf and save **Stage 5: creating an email** **Tools:** PC, web browser **Application:** Open a web browser like google chrome. Enter ***gmail.com*** in the web address Select create account. Choose the type of account (personal account) Enter your personal information e.g. surname, first name, user name and password, confirm password click next and enter your phone number verify your account with the code sent to your phone **Stage 6: attaching the files (application letter, academic documents and CV) on online platform i.e. email** **Tools:** PC, Web browser **Application:** Open your e mail Select compose Enter the recipient's address (info@sjs.ac.ug) Compose a greeting line Select the attach button and browse to find the files (application letter, CV and academic documents) Select send.

ITEM 5

Competency (Basis of assessment)	**Evidence: Skill/ability exhibited/Score**	**Score**
Provides a focused introduction	**Produces a focused introduction**	**01**
Describes procedure	• Identifies ***6 or more*** relevant steps with the necessary ICT tools • Identifies ***4-5*** relevant steps with the necessary ICT tools • Identifies ***2-3*** relevant steps with the necessary ICT tools. • Identifies 1 relevant step • No response	04 03 02 01 00
Follows a logical flow	Complete logical flow. Partial/incomplete Logical flow No logical flow	02 01 00
Conclusion	Provides a relevant conclusion *(solution/judgement/recommendation)*	01

Competences	**Basis Of Assessment**	**Expected Responses**
T3 a,b T7 a,b T11 a T13 a	Describes relevant steps	-Access a computer -Downloading the form from the web -Filling the form -Taking some photos about the project -Printing the photos and forms -Scanning the filled forms& photos -Uploading the to the website
	Describes ICT tools used.	- Computers - camera - printer - scanner - flash disks - CDs - Modem - Mobile phones
	Procedure	-computer-(to access the website

		-camera-(to take pictures of the projects) -printer(print out the downloaded form and photos) -scanner(scanning the filled forms for uploading) -flash disk(storage of forms to fill just in case) -CD-(to store the soft copies for future use) -modem(connect to internet) -phone(taking mobile photos and communication)
	logical flow of steps	

840/2
INFORMATION AND COMMUINICATIONS TECHNOLOGY (ICT)
Paper 2
2024
2½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

INFORMATION AND COMMUINICATIONS TECHNOLOGY

Paper 2
Practical

2 hour 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *examination items.*

Answer **both** *items in this paper.*

You are provided with support files in the folder **UNEB Support Files** *on the computer desktop. Use the support files where applicable to supplement the items.*

You are provided with a **new blank Compact Disc (CD)**.

Use a **permanent marker** *to write your name, random number and personal number on your CD.*

You should continuously **save** *your work.*

You **must** *produce a* **hard copy** *for each of your work to accompany a soft copy on the Compact Disc* (*CD*).

Item 1

In a certain community, a group of employees formed a **savings group** called **Sente Kumeza Fund**. The treasurer of the group has a metallic box where money is kept and a small exercise book where members' transactions are recorded. The members who borrow, sometimes complain of how the calculations of loan repayment amount are made.

The savings group recently received a new member, who expressed concern about the way records are being managed and suggested that a computerized system be adopted to manage the records. The members took the concern positively but none of them has computer knowledge and skills.

The records in the small book have been extracted and provided in the support file **KUMEZA.docx**. and a sample of the reminder letter for those with loan balances in the file **DEMAND.docx**.

Task

Using the support files provided;

(a) Create an electronic storage of the records and use it to produce a graphical representation of members' savings.

(b) Generate a list of members with loan balances and prepare a reminder letter for each of them.

Item 2

In a certain school, the administration wishes to use ICTs to interact effectively with the Public on all events happening at the school, such as academic affairs, current projects, sports among others. The public should be able to provide feedback.

The administration is also intending to provide an **active form** for those students who would wish to join the school.

Task

Develop an online platform that illustrates to the administration, on how to address the concerns of the school. A support folder called **My_School** has been provided containing some files which may be used

END

840/2
INFORMATION AND COMMUINICATIONS TECHNOLOGY (ICT)
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

INFORMATION AND COMMUNICATIONS TECHNOLOGY(ICT)

Paper 2
Practical

New Lower Secondary Curriculum

SCORING GUIDE

ITEM 1

Competency (Basis of assessment)	Evidence: Skill/ability exhibited/Score	Score
Planning: **Selects appropriate application programs** – Word processing Software – Spreadsheet software – Database software – Presentation software	• Uses 2-3 appropriate application programs of the following: Word processing Software Spreadsheet software Database software Presentation software • Uses 1 appropriate application programs • Uses none of the above appropriate application programs	**02** **01** **00**
Manipulation: **Uses Application tools to manipulate data.**	• Uses more than 6 of the listed manipulations to generate appropriate outputs. Enters data Edits data Formats data Performs calculations on data Filters data Generates merged document • Uses the 6 listed manipulations above, to generate appropriate outputs. • Uses less than 6 of the listed manipulations above, that do not generate appropriate outputs. • No listed manipulation used	**03** **02** **01** **00**
Product/Output: **Represents data and produces both forms of output** *(Both Hard copy and Soft copy)*	• Generates 2 products (*merged letters and graphical*) in both forms of output • Generates 2 products (*merged letters and graphical*) but in one form of output • Generates 1 product (*merged letters and graphical*) in both form of output • Generates 1 product (*merged letters and graphical*) in one form of output • Generates inappropriate products in any form of output	**04** **03** **02** **01** **00**

ITEM 2

Competency (Basis of assessment)	Evidence: Skill/ability exhibited/Score	Score
Planning: **Selects appropriate application programs**	• Uses any one webpage authoring application programs • Uses non-web authoring application programs	**01** **00**
Manipulation: **Uses publishing features to create publications.**	• Uses 7-8 of the listed publishing features to create publications. Adds organization name Adds web pages	**03**

	Adds page titles Adds feedback section Links pages Creates active form Adds appropriate *pictures, logos, video clips, banners* Organizes content on the pages • Uses 6 of the listed publishing features above to create publications. • Uses less than 6 of the listed publishing features above to create publications. • No evidence of creation of any publication	**02** **01** **00**
Product/Output: **Produces publications in both forms of output** *(Both Hard copy and Soft copy)*	• Generates a website with at least 3 web pages in both forms of output • Generates a website with less than 3 web pages in both forms of output • Generates a website with at least 3 web pages in only one form of output • Generates a website with less than 3 web pages in only one form of output	**03** **02** **01** **00**

845/1
Entrepreneurship
Education
Paper 1
2024
2½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

ENTREPRENEURSHIP

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

This paper consists of sections **A** *and* **B**. *It has* **five** *examination items.*

Section **A** *has* **three** *compulsory items.*

Answer **one** *item from Section* **B**.

Answer **four** *examination items in all*.

Any additional item(s) answered will **not** *be scored*.

All answers **must** *be written in the answer booklet(s) provided.*

 Turn Over

SECTION A

Answer **all** *items in this section.*

Item 1:

Gonzag has an acre of land next to a lake. He has saved UGX4,000,000 and would like to use these resources to start a business. However, he is not sure of what to do.

Task:

Use your entrepreneurial skills to guide Gonzag;

(a) select a viable type of business.

(b) budget for the selected business.

(c) register the business.

Item 2:

Mariam is operating a tailoring business in her home town. She employs five workers who usually conflict on their roles especially when taking measurements, cutting, sewing, fixing button or zips and ironing clothes of customers.

The business has three manual sewing machines. When Mariam gets many orders from her customers, she fails to complete the work in time and sometimes fails to finish sewing them neatly. Other customers are also complaining that their orders are either forgotten or given clothes that are not theirs. This has made many customers to take their clothes to other tailors.
Mariam is planning to buy more machines but she is not sure from where to buy them.

Task:

(a) Identify the qualities demonstrated by Mariam as an Entrepreneur.

(b) How can Mariam solve the challenges in the scenario as an Entrepreneur?

Item 3:

Joseph owns a bakery in a trading centre in his home area. He recruited employees who start working from 5:00 am to 11:00 pm at a pay of UGX1,500 per day yet none of them has a working contract. The town council authorities have threatened to close Joseph's business for not paying taxes. Joseph does not know the taxes to pay. At times, customers return bread bought to Joseph claiming that it weighs less than what is indicated on the label.

Last week, there was a short circuit that caused fire in the bakery. An oven was destroyed and production in the bakery stopped for two days. The bakery delivery van which had a comprehensive insurance policy was also stolen. Joseph is now confused and is wondering whether he should close the business or continue with it.

Task:

(a) What are the likely effects of Joseph's behaviour on the business?

(b) Explain to Joseph how he should solve the challenges in the scenario.

SECTION B

Answer **one** *item from* this *section.*

Item 4:

Juma trades in farm produce but lacks book-keeping skills. He employed Sarah as the accounts assistant. Unfortunately, Sarah left the job before checking the arithmetic accuracy of the balances extracted from the business ledger and determine the profit or loss of the business as at 31/12/2023. The balances were as follows.

ITEM	**UGX**
Stock (1st January, 2023)	4,100,000
Purchase of farm produce	5,700,000
Purchases returns	1,100,000
Sale of farm produce	10,200,000
Sales Returns	1,200,000
Land and Buildings	44,400,000
Vehicle	13,000,000
Transport	700,000
Weighing scale machine	500,000
Capital	63,460,000
Furniture	3,500,000
Debtors	600,000
Creditors	1,300,000
Electricity bills	200,000
Salaries and wages	2,160,000
Stock (31st December, 2023	2,200,000

Task: Prepare for Juma the relevant business financial statements.

Item 5:

In January 2023, Michael's Cashier left for another job before preparing the financial statements for the business. The Cashier left the details obtained from the ledger balances of the restaurant for the year ending 31st December 2023 as follows;

ITEMS	UGX
Capital	6,850,000
Sales	5,200,000
Purchases	3,800,000
Cash at hand	5,720,000
Furniture	600,000
Discount received	400,000
Refrigerator	1,200,000
Creditors	870,000
Repairs for refrigerator	320,000
Drawings	1,100,000
Electricity bills	1,440,000
Salaries and wages	1,800,000
Stock of food items (31/12/2022)	720,000
Bank loan	2,660,000

However, Michael is too busy to complete the process.

Task:

Prepare for Michael the relevant financial statements to;

(a) check the arithmetic accuracy of the ledger balances.

(b) determine the profit or loss made by the business.

END

845/1
ENTREPRENEURSHIP
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

ENTREPRENEURSHIP

Paper 1

SCORING GUIDE

ENTREPRENEURSHIP SAMPLE PAPER SCORING GUIDE

ITEM 1:

Element of Construct	Basis of Assessment	Success Criteria	Scoring	Total
Appreciate Business Start-up Process	1.Analysis of business opportunity	2 or more ideas generated 1 idea generated No/wrong idea E.g.; • Tree planting • Crop production • Fishing (Acqua-culture) • Animal rearing • Bee keeping (Api-culture) • Irrigation • Flower growing(Floriculture) • Recreation centre • Washing bay • Sand mining etc	02 01 00	02
		Analysis of ideas 3 or more ideas analysed 2 or more ideas analysed 1 or more ideas analysed No/wrong area of analysis E.g. -Products needed/ Demand/ Market -Business risks -Competitors -Market growth -Profitability -Availability of finances, etc	03 02 01 00	03
		Use of market survey/research tool/Human wants - Identification of market survey/research tool with justification - Identification of market survey/research tool without justification - No/wrong tool	02 01 00	02
		3 contents of market survey/Research 2 contents of market survey/Research 1 content of market	03 02	03

		survey/Research No/wrong content E.g. products needed, target customers, income, education, age, location, etc., competitors; products sold, price, packaging, location, etc **Decision on type of business** (agro-business, agri-business, manufacturing, trading and service) **Decision** Decision with justification Decision without justification No/wrong decision	 01 00 02 01 00	 02
	2.Budget	Title No title **List of 3 or more items with monetary value** -Identification of 3 required items with estimates of monetary value -Identification of 2 required items with estimates of monetary value -Identification of 1 required item with estimates of monetary value -No/wrong item in relation with **Total budget** Correct total No/wrong total	01 00 03 02 01 00 01 00	01 03 01
	3.Fomalisation	Registration- should be in line with form of business selected. E.g.: Sole proprietorship; trading license Partnership; partnership agreement and its purpose and content Company; memorandum of Association, Articles of Association, certificate of incorporation, etc.		

		Registration process **1. Form of business** -Choosing a suitable business form -Wrong/no form of business Selected **2. Registration** -Registering the business name and the physical address -Obtaining the required document eg certificate of incorporation/trading license etc. in relation to the selected form of business -Explaining the purpose of the documents(s) -Securing Tax Identification Number (TIN) -Registering for National Social Security Fund (NSSF) 3 or more steps @ 1score 2 steps @ 1score 1 step @ 1score No/wrong step Logical flow No logical flow	01 00 03 02 01 00 01 00	01 03 01

ITEM 2

Element of Construct	Basis of Assessment	Success Criteria	Scoring	Total
Manage a business	The entrepreneur	**1.The Entrepreneurial qualities** e.g. perseverance, hardworking, risk taker, goal oriented, information seeker, opportunity oriented Commitment to the work, Self-confident, Creative and innovative, visionary, etc. 3 or more qualities described 2 or more qualities described 1 or more qualities described No/wrong quality identified	03 02 01 00	03

	Production skills	**2. Selection of a source for a sewing machine** Eg Compatibility Flexibility Guarantee Durability Costs of maintenance Installation costs Location of supplier, etc. 3 or more factors explained 2 or more factors explained 1 or more factors explained No/wrong factor explained	 03 02 01 00	 03
		3. Division of labour and diversification Justifies division of labour e.g scheduling work, spelling out roles, etc Justification of need for division of labour No/wrong justification	 01 00	 01
		4. Creativity & innovation Challenge; • Failing to honour customers' orders on time. • Poor quality- fails to finish sewing neatly Solutions; • Sub-contract • Hire more employees • Work longer hours, etc. 1 challenge & solution No/wrong Challenge/solution	 01 00	 01
		5. Record keeping in production e.g. Records of customers' orders as solution to: -forgetting of customer orders & -serving customer wrong orders & Explanation of an issue with appropriate record No/wrong issue identified	 01 00	 01

ITEM 3

Element of Construct	Basis of Assessment	Success Criteria	Scoring	Total
Appreciate Business Support	1.Ethical issues in relation to business development	**Identification of Effects of Entrepreneur's behaviour on business** e.g. • Employee turnover • Legal battles/law suits • Poor image • Loss of customers • Accidents • Low sales/low profits • Production of low quality products • Business closure, etc. 5 effects identified 4 effects identified 2 - 3 effects identified Less than 2 /No/wrong effect identified	03 02 01 00	03
	2.Business ethics towards stakeholders	**Explanation of business ethics** towards**;** 1.Employees; • Over working • Low pay • Job insecurity/no contract 2. Government; • Non tax compliance 3. Customers • Underweight products • Dishonesty 3 or more ethics & solutions explained. 2 or more ethics & solutions explained 1 or more ethics & solutions explained No/wrong business ethic explained	03 02 01 00	03

	3.Risks in business and insurance	**Explanation of risks and mitigation measures.** **Risks e.g.;** Fire, Theft, Accident, Machine breakdown & Loss of profits, etc. **Mitigation measures** e.g.; • claim compensation for van • Take insurance policies like Accident policy, Fire Policy, Machinery breakdown & consequential loss policy, etc. • insure other assets improve security, etc 3 or more risks & solutions explained 2 or more risks & solutions explained 1 risk & 1 solution explained No/wrong risk/solution explained **Mitigation measures** e.g.; • claim compensation for van • Take insurance policies like Accident policy, Fire Policy, Machinery breakdown & consequential loss policy, etc • insure other assets • improve security, etc **Decision** Decision taken No/wrong decision taken	03 02 01 00 01 00	03 01

ITEM 4

Element of Construct	Basis of Assessment	Success Criteria	Scoring	Total
Apply book keeping skills	Prepare Trial balance	**Preparation of Trial balance**		
		Title	01	01
		No/wrong title	00	
		Format	01	01
		No/wrong format	00	
		Entries/postings		
		Makes 10-15 entries	03	03
		Make 8-9 entries	02	
		Makes 4-7 entries	01	
		Makes 0-3 / No/wrong entry	00	
				01
		Total		
		Any correct total	01	
		No total correct	00	
	Prepare Income statement	**Preparation of Income statement**		
		Title	01	01
		No/wrong title	00	
		Format	01	01
		No/wrong format	00	
		Entries/postings		
		Makes 7-11 entries	03	03
		Make 6 entries	02	
		Makes 3-5 entries	01	
		Makes 0-2 / No/wrong entry	00	
		Total		
		Any correct total	01	01
		No total correct	00	

Success criteria

a) Trial balance

$^{2}/_{3}$ of entries made; 10 - 15 entries = 3 scores
$^{1}/_{3}$ of entries made; 8 – 9 entries = 2 scores
¼ of entries made; 4 - 7 entries = 1 score
No/wrong entry / 0 – 3 entries = 0 score

MICHAEL'S RESTAURANT
TRIAL BALANCE AS AT 31/12/2022

Details	**Debit (Shs)**	**Credit (Shs)**
Capital		6,850,000
Sales		5,200,000
Purchases	3,800,000	
Cash at hand	5,720,000	
Furniture	600,000	
Discount received		400,000
Refrigerator	1,200,000	
Creditors		870,000
Repairs for the refrigerator	320,000	
Drawings	1,100,000	
Electricity	1,440,000	
Salaries and wages	1,800,000	
Bank loan		2,660,000
Total	**15,980,000**	**15,980,000**

b) Income Statement

$^{2}/_{3}$ of entries made	7 - 11 entries	=	3 scores
$^{1}/_{3}$ of entries made	6 entries	=	2 scores
¼ of entries made	3 - 5 entries	=	1 score
No/wrong entry and 0 – 2 entry		=	0 score

MICHAEL'S RESTAURANT
INCOME STATEMENT FOR THE YEAR ENDED 31/12/2022

Details		Debit (Shs)	Credit (Shs)
Sales			5,200,000
Less cost of sales			
Purchases		3,800,000	
Less closing stock		720,000	
Cost of sales			3,080,000
Gross profit			2,120,000
Add other incomes			
Discount received			400,000
Total income			2,520,000
Less Operating expenses			
Repairs		320,000	
Electricity bills		1,440,000	
Salaries and wages		1,800,000	
Total expense			3,560,000
Net Loss			**1,040,000**

ITEM 5

Element of Construct	Basis of Assessment	Success Criteria	Scoring	Total
Apply book keeping skills	Prepare Trial balance	**Preparation of trial balance** **Title** Correct Title No/wrong title **Format** Correct Format No/wrong format **Entries/postings** Makes 9-13 entries Make 4-8 entries Makes 3 entries Makes 0-2 / No/wrong entry **Total** Any correct total No /wrong total	 01 00 01 00 03 02 01 00 01 00	 01 01 03 01
	Prepare Income statement	**Preparation of Income Statement** Title No/wrong title Format No/wrong format **Entries/postings** Makes 6 - 9 entries Make 3 - 5 entries Makes 2 entries Makes 0 - 1 / No/wrong entry **Total** Correct Total income/Net profit No total correct	 01 00 01 00 03 02 01 00 01 00	 01 01 03 01

Success criteria

a) Trial balance

$^{2}/_{3}$ of entries made	9 - 13 entries	=	3 scores
$^{1}/_{3}$ of entries made	4 - 8 entries	=	3 scores
¼ of entries made	3 entries	=	1 score
No/wrong entry and	0 – 2 entries	=	0 score

JUMA'S FARM PRODUCE
TRIAL BALANCEAS AT 31ST DECEMBER, 2023

PARTICULARS	DEBIT (UGX)	CREDIT (UGX)
Stock (1st January, 2023)	4,100,000	
Purchases	5,700,000	
Purchases returns		1,100,000
Sales		10,200,000
Sales Returns	1,200,000	
Land and Buildings	44,400,000	
Vehicle	13,000,000	
Transport	700,000	
Weighing scale machine	500,000	
Capital		63,460,000
Furniture	3,500,000	
Debtors	600,000	
Creditors		1,300,000
Electricity Bills	200,000	
Salaries and wages	2,160,000	
Total	**76,060,000**	**76,060,000**

b) Income Statement

$^2/_3$ of entries made; 6 - 9 entries = 3 scores
$^1/_3$ of entries made; 3 - 5 entries = 3 scores
¼ of entries made; 2 entries = 1 score
0 – 1 entry/ No/wrong entry made = 0 score

JUMA'SINCOME STATEMENT
FOR THE YEAR ENDED 31ST DECEMBER, 2023

PARTICULARS	**AMOUNT (UGX)**	**AMOUNT (UGX)**	**AMOUNT (UGX)**
Sales			10,200,000
Less Sales Returns			1,200,000
Net Sales			**9,000,000**
Less Cost of Sales:			
Stock (1st January, 2023		4,100,000	
Purchases	5,700,000		
Less Purchases returns	1,100,000		
Net Purchases	4,600,000	4,600,000	
Cost of goods offered for sale		8,700,000	
Less Closing stock		2,200,000	6,500,000
Gross Profit			**2,500,000**
Less Operating expenses:			
Transport		700,000	
Electricity bills		200,000	
Salaries and wages		2,160,000	3,060,000
NET LOSS			**560,000**

456/1
MATHEMATICS
Paper 1
2024
$2\frac{1}{4}$ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

MATHEMATICS

Paper 1

2 hours 15 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections;* **A** *and* **B**. *It has* **six** *examination items.*

Section **A** *has* **two** *compulsory items.*

Section **B** *has* **two** *parts;* **I** *and* **II**. *Answer* **one** *item from each part.*

Answer **four** *examination items in all.*

Any additional item(s) answered will **not** *be scored.*

All *answers* **must** *be written in the Answer booklet(s) provided.*

Graph Paper is provided.

Silent, non-programmable scientific calculators and mathematical tables with a list of formulae may be used.

SECTION A

Answer **all** *items in this section.*

Item 1.

Your guardian has a budget of Shs700,000 for your school expenses. To get to the school where your guardian wishes to take you for A-level, your guardian drove 4 km east from your home to the stage and then 8 km north to reach there. However, you realized later that there was a direct route from home to school your guardian could have used.

On reaching the school, you found out that, the school fees, admission fees and uniform fees are Shs900,000, Shs100,000 and Shs350,000 respectively. The school also offers a bursary of; 60% off school fees, free admission and eighty-seven thousand five hundred shillings off uniform fees to those who got first grade and according to your results, you qualify for this bursary.

It also has **two** payment **plans** on school fees that the guardians can choose from and they are:

- Paying in two instalments that is to say; two thirds of the school fees at the beginning of the term and the balance at either visitation day or end of term.
- Paying in three equal instalments; at the beginning of the term, on visitation day and end of term respectively.

Task:

(a) How far is it from your home to school if you travel through the direct route?

(b) (i) Since you qualify for the bursary, how much will you pay?

(ii) Will your guardian afford the school expenses according to his budget?

(c) (i) How much will those who are to pay school fees of Shs900,000, pay per instalment, according to each of the payment plans?

(ii) Which payment plan would you recommend for them and why?

Item 2.

You have friends who rear cows and goats. During the festive season, they want to sell **at most** 10 of their cows and **at least** 8 of their goats. They also want to ensure that the number of goats they sell are less than twice the number of cows. They also **do not want to** sell more than 20 animals all together. They wish to **maximise** sales by selling each goat at Shs200,000/= and each cow at Shs1.5 millions but they do not know the number of goats and cows to sell to fulfil their wish.

Task:

(a) write mathematical statements that show the relation between the cows and goats.

(b) Show the feasible region of the relation on the Cartesian plane.

(c) Help your friends to determine the maximum amount of money they will possibly make from the sale of cows and goats.

SECTION B

This Section has two Parts; **I** *and* **II**

Part I

Answer **one** *item from this part*

Item 3.

A day school holds a weekly assembly every Monday starting at 8:00 AM. The Head teacher has noticed a trend of learners arriving late for assembly. Since the school gates are opened at 7:30 AM, he decided to collect data from a sample of learners on their arrival times in minutes past 7:30 AM to make an informed decision about the assembly's start time. The collected data was as follows:

15, 18, 20, 22, 17, 25, 23, 28, 26, 21
30, 33, 35, 32, 36, 39, 42, 37, 41, 28
45, 48, 29, 31, 26, 27, 30, 33, 34, 31
28, 35, 40, 42, 37, 39, 36, 38, 29, 43
46, 47, 30, 32, 31, 45, 27, 44, 46, 49
52, 53, 55, 51, 50, 56, 57, 58, 59, 51

Task:

(a) Giving a reason, based on calculations using the data collected, suggest the time the assembly should always start.

(b) The deputy Head teacher advised the Head teacher to always start the assembly when at least 75% of the students are present. Based on the advise, determine the time the assembly should start.

(c) If you were the Head teacher, which of the two suggested assembly start times from (a) and (b) would you consider more appropriate and why?

Item 4.
The Ministry of Health in Uganda is conducting a survey about the existence of malaria in three districts: A, B and C. The ministry will then come up with control measures if the chance of a person testing positive having visited at least one of the districts is above 50%. The Ministry has intentionally selected a sample of people who visited the three districts and tested them for malaria. The test results have revealed that 50 people who visited district A, 60 people who visited district B and 40 people who visited district C tested positive for malaria. Additionally, 20 people who visited both districts A and B, 10 people who visited districts A and C, and 15 people who visited districts B and C tested positive for malaria. The Ministry has also discovered that 20 people who only visited district C tested positive for malaria and 40 people who visited the three districts tested negative for malaria.

Task:

(a) Determine the number of people that were tested for malaria by the ministry of health.
(b) Calculate the probability of a person testing positive having visited at least one of the three districts.
(c) Advise the Ministry of health, with a reason based on calculation, whether to come up with control measures or not.

Part II

Answer **one** *item from this part.*

Item 5.
Your uncle has offered to drive you to your friend's birthday party. He normally drives his car at an average speed of 50 km/h, so he requests you to get directions to the party reception and the time you are supposed to be there so that you decide on when you can leave home to reach on time. You were informed that the party will start at 2:00 PM and the directions are:

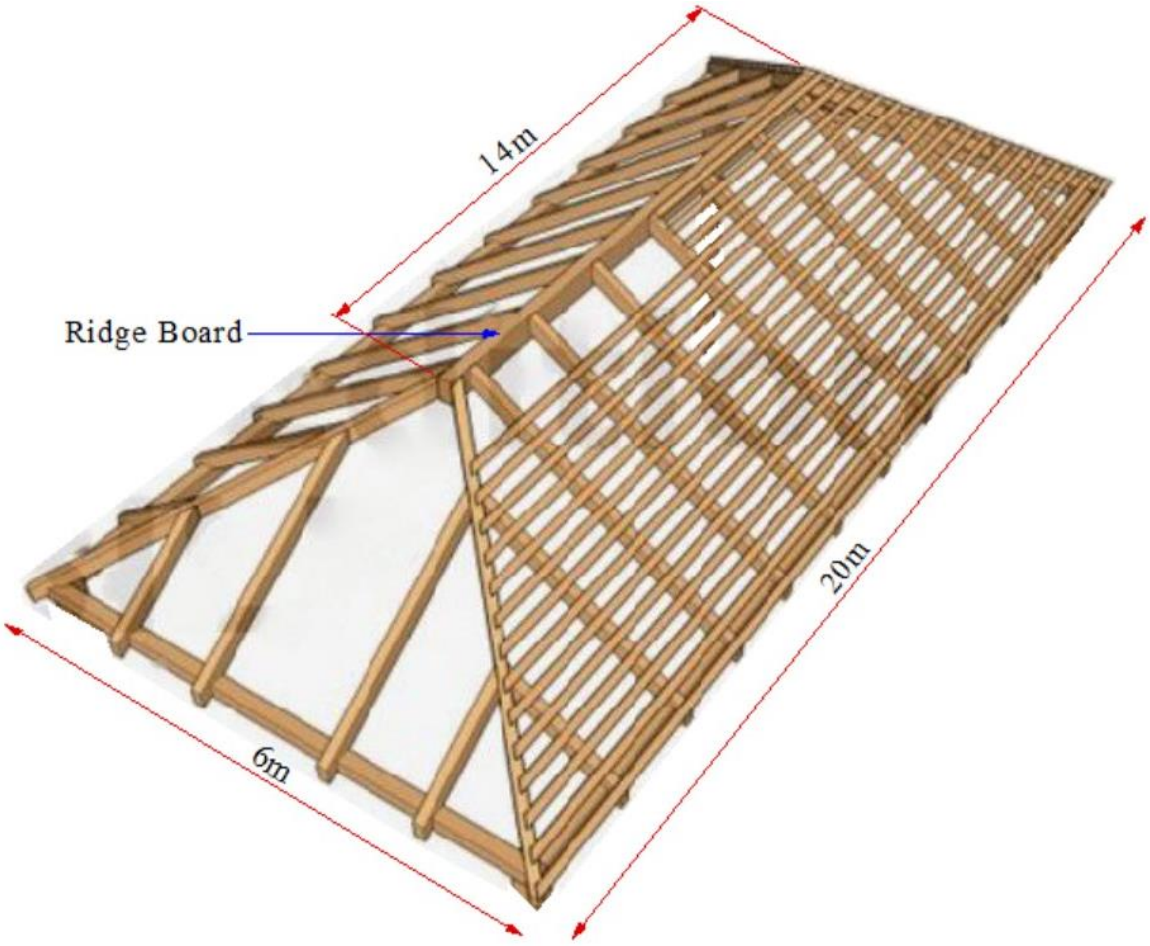
- From your home, take the north eastern direction and reach the supermarket that is 20 km away.
- Then take the road that is south of the supermarket and it will take you 45 minutes to reach the junction.
- From the junction, take the southwestern road and drive 25 km to reach the party reception.

On reaching the party reception using the given directions, your friend remembers that there is a direct route from your home to the reception that you could have used but does not know how long it is.

Task:

(a) (i) Describe the direction of your home from the party reception.
(ii) How far is the party reception from your home using the direct route?
(b) What time would you have to leave home for you to reach the party reception on time, if you used the direct route?

Item 6.
Your neighbour has a building structure that is at a roofing stage with the roof frame installed as shown below:



The roof frame has a rectangular base with dimensions of 20 m by 6 m and the ridge board of 14 m centrally placed. The triangular faces are equilateral.
She wants to use iron sheets that are available in two types; type **A** and type **B**. The iron sheet of type **A** costs Shs33,000 each and that of type **B** costs Shs42,000. Each iron sheet has a length of 10ft and usable width of 2.623 ft. (1ft = 0.3m)
The hardware shop from which she wants to buy the iron sheets gives a discount of 6% on the total cost of every fifty (50) iron sheets of type **A** bought and a discount of 10% on the total cost of every seventy (70) iron sheets of type **B** bought.

She intends to borrow money from a bank to buy the iron sheets but she is not so sure of the amount to borrow.

Task:

(a) Help your neighbour to estimate the amount of money to be borrowed from the bank for either type of iron sheets.

(b) Give your neighbour advice, with reason(s), on the type of iron sheets to buy.

END

456/1
MATHEMATICS
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

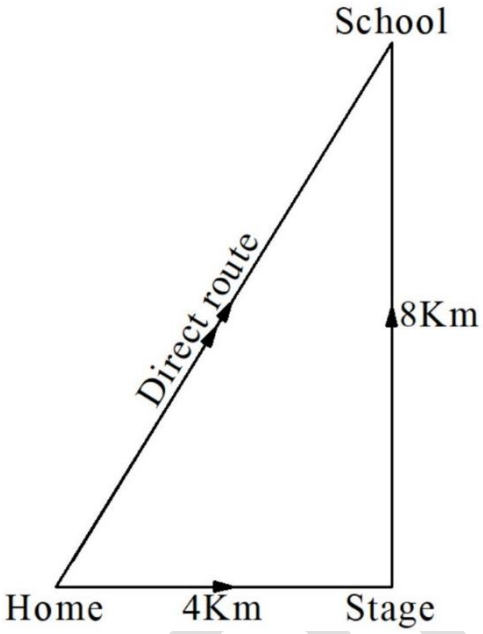
MATHEMATICS

Paper 1

New Lower Secondary Curriculum

SCORING GUIDE

1(a) Distance from home to school using the direct route.



(Direct distance)$^2 = 4^2+8^2$

Direct distance $= \sqrt{(4^2+8^2)}$

$=\sqrt{(16+64)}$

$=\sqrt{(80)}$

$=8.94$km

(b)(i) school fees $= \frac{100-60}{100} \times 900{,}000/=$

$= \frac{40}{100} \times 900{,}000/=$

$= 360{,}000/=$

Uniform $= 350{,}000 - 87{,}500$

$= 262{,}500/=$

Total amount to be paid $= 360{,}000 + 262{,}500$

$= 622{,}500/=$

(b)(ii) Conclusion: yes, the guardian will afford the school since the total amount to be paid is less than the 700,000/= s/he has budgeted for school expenses.

(c)(i) Payment plan 1

First instalment = $\frac{2}{3} \times 900{,}000/=$

= 600,000/=

Second instalment =900,000 – 600,000

= 300,000/=

Payment plan 2

Each instalment =$\frac{1}{3} \times 900{,}000/=$

=300,000/=

(c)(ii) Recommended payment plan:

Reason:

2. Let x be the number of cows to be sold and y the number of goats to be sold.

$x \geq 0, y \geq 0$

$x \leq 10$

$y \geq 8$

$x + y \leq 20$

$y < 2x$

Sales =1,500,000x + 200,000y

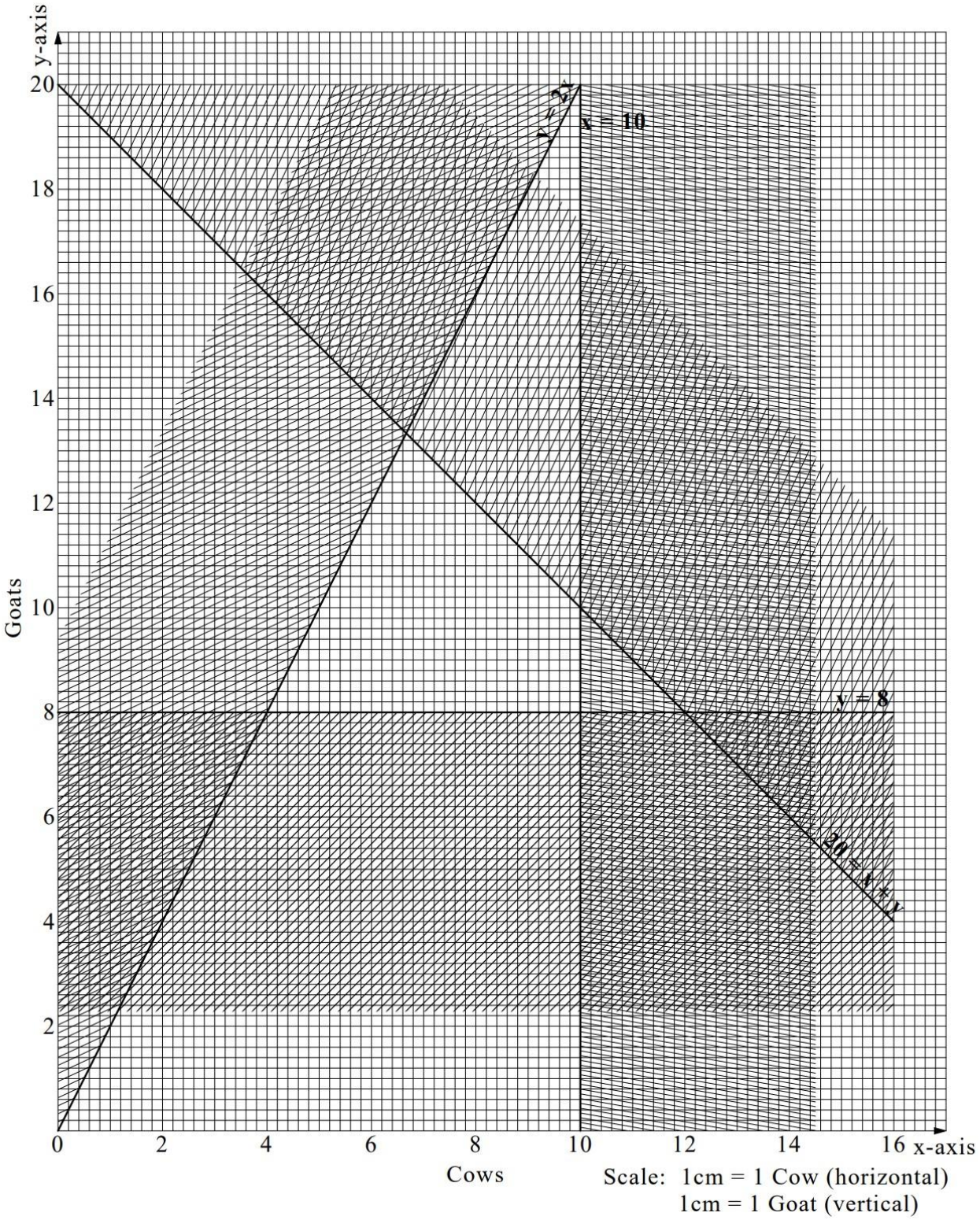
For y = 2x

x	0	1
y	0	2

For x + y = 20

x	0	20
y	20	0

A graph showing the feasible region



Maximisation of sales

Optimal points (x,y)	Sales =1,500,000x + 200,000y
(10,10)	17,000,000
(9,11)	15,700,000
(8,12)	14,000,000
(7,13)	13,100,000

(any other point(s) within the feasible region)

Conclusion: Chooses a combination that maximises sales (a combination that gives the highest amount of money).

That is,they should sell ten cows and ten goats to maximise sales and they will make 17,000,000/=.

OR

Accept any other correct method.

Qtn3.

Time(Min)	Tallies	Freq (f)	Cumm freq	Class boundary	Mid-point (x)	fx
15-19	///	3	3	14.5-19.5	17	51
20-24	////	4	7	19.5-24.5	22	88
25-29	~~////~~ ~~////~~	10	17	24.5-29.5	27	270
30-34	~~////~~ ~~////~~	11	28	29.5-34.5	32	352
35-39	~~////~~ ////	9	37	34.5-39.5	37	333
40-44	~~////~~ /	6	43	39.5-44.5	42	252
45-49	~~////~~ //	7	50	44.5-49.5	47	329
50-54	~~////~~	5	55	49.5-54.5	52	260
55-59	~~////~~	5	60	54.5-59.5	57	285
		∑f=60				**∑fx=2220**

(a) Mean time = $\frac{\sum fx}{\sum f} = \frac{2220}{60}$ = 37 minutes

The assemble start time should be 37 minutes from 7:30AM since the average time of arrival of the students after 7:30 AM is 37 minutes. That is, the assembly should start at 8:07 AM.

Note: Accept calculation of any measure of central tendency followed by a relevant/appropriate explanation.

(b) EITHER

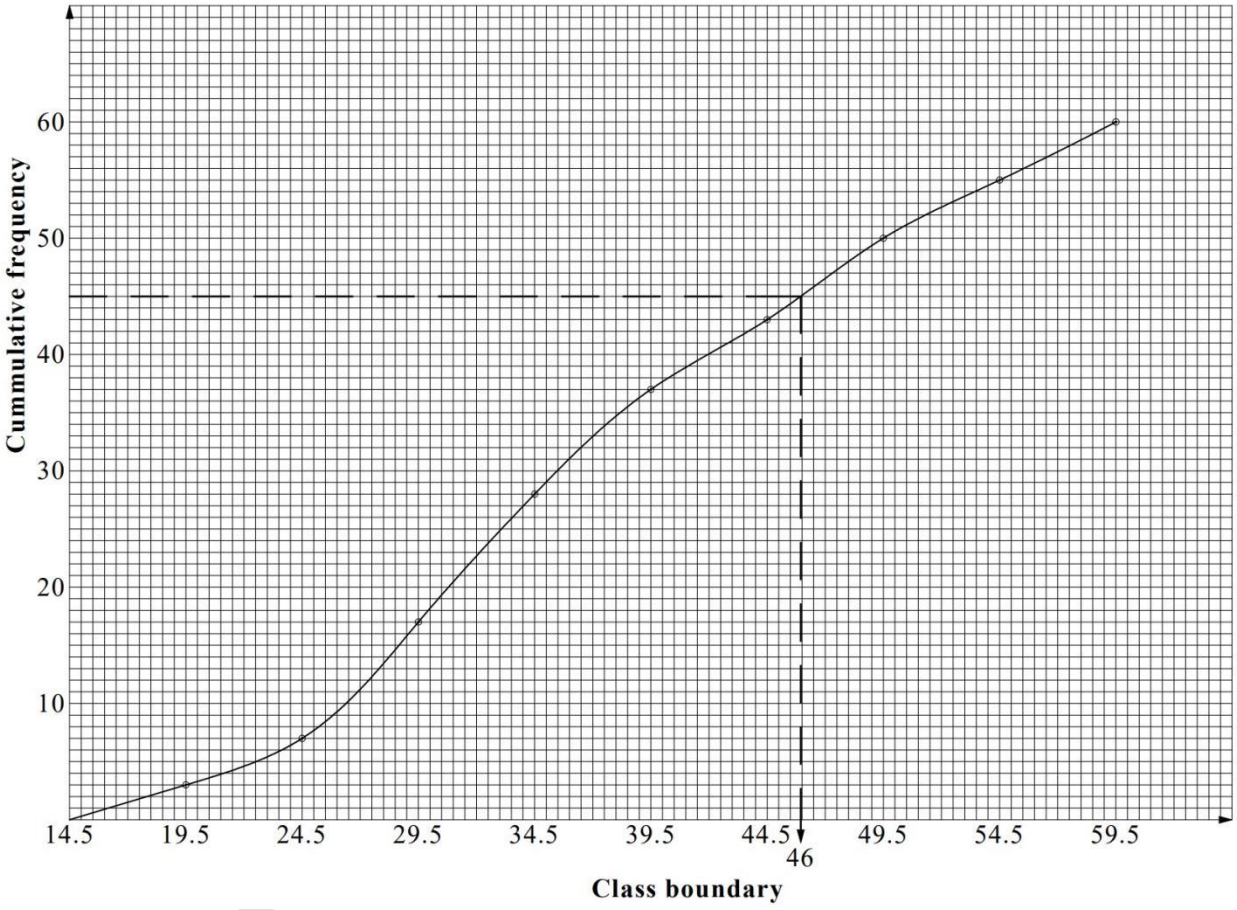
75% = 75th percentile, given by ($\frac{75}{100}$ x N)th position of cumulative frequency.

= ($\frac{75}{100}$ x 60)th position of cumulative frequency

= 45th position of cumulative frequency

From the Ogive, 75th percentile = 46 minutes. (see Ogive)

The assemble start time should be 46 minutes from 7:30AM since the arrival time of 75% of the students after 7:30AM is 46 minutes. That is, the assembly should start at 8:16AM.



OR

Note: Accept calculation of the 75th percentile using a formula.

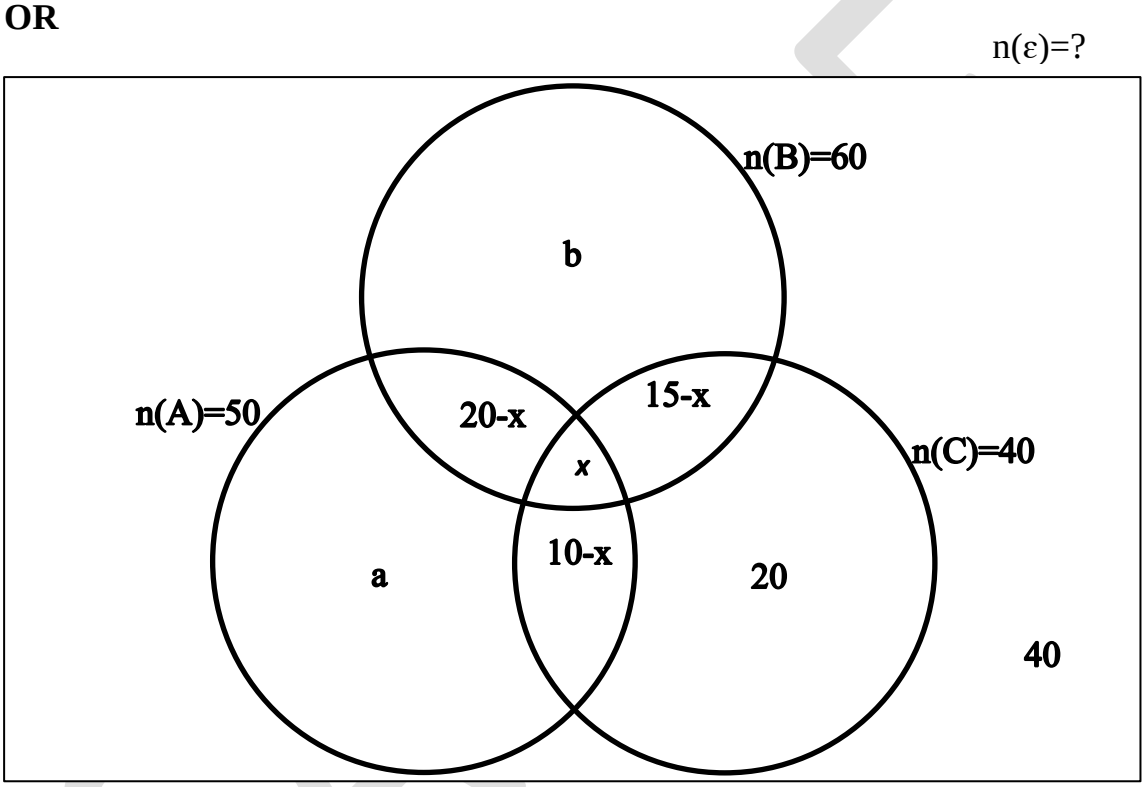
Question 4

SOLUTION

EITHER

$n(\varepsilon)=?$, $n(A)=50$, $n(B)=60$, $n(C)=40$, $n(A\cap B)=20$, $n(A\cap C)=10$, $n(B\cap C)=15$, $n(C)_{only}=20$, $n(A\cap B\cap C)=x$, $n(A\cap B)_{only}=20-x$, $n(A\cap C)_{only}=10-x$, $n(B\cap C)_{only}=15-x$, $n(A)_{only}=?$, $n(B)_{only}=?$, $n(AUBUC)'=40$.

OR



Using the people who visited district C and tested positive gives;

$x + 15- x + 10- x + 20 = 40$

$45- x = 40$

$x = 5$

Therefore, 5 people who had visited all the three districts tested positive for malaria.

The number of people who visited district A only and tested positive is given by;

$50- (x + 20- x + 10- x) = 50- 30 + x = 20+5 =25$

The number of people who visited district B only and tested positive is given by;
$60- (x + 20- x + 15- x) = 60- 35 + x = 25+5 =30$

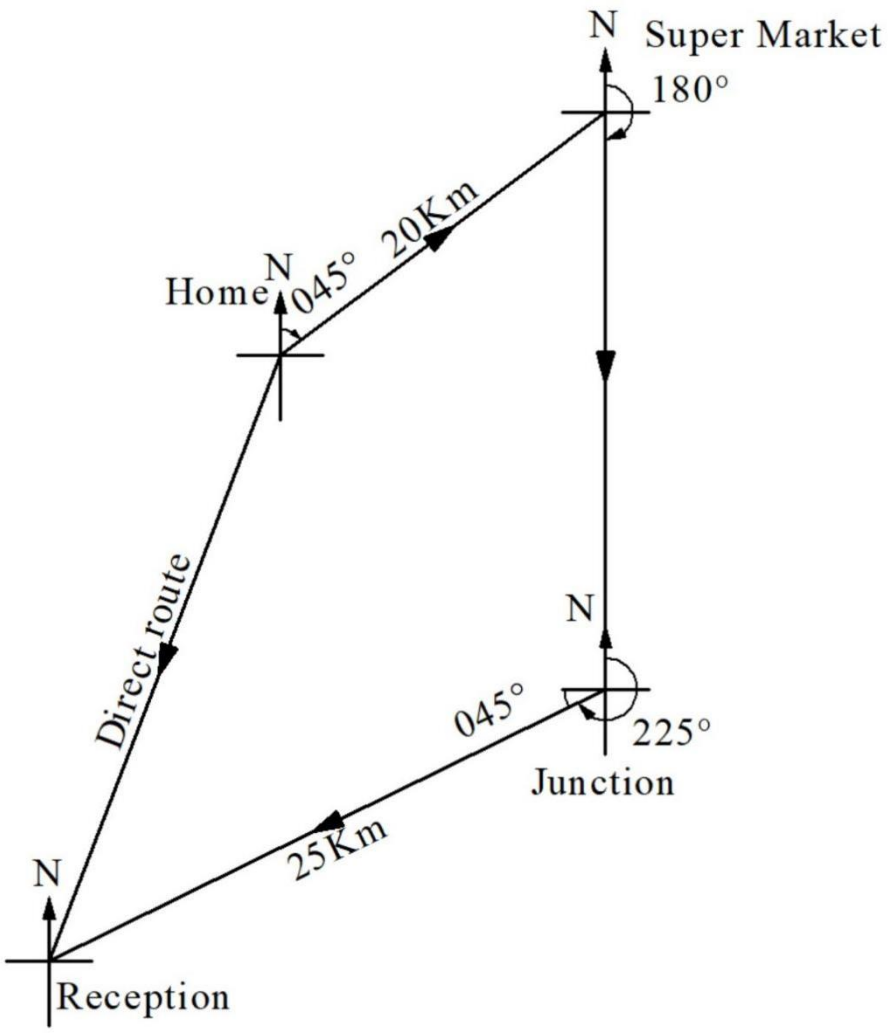
The number of people who visited at least one district and tested positive is given by;
60+ 25+ (10-*x*) + 20 = 115- *x* = 115-5 =110

The sample that was purposively selected n(ε) = 110 + 40 = 150

Therefore the chance of testing positive for malaria having visited at least one district is given by; P(positive having visited at least one district)= $\frac{110}{150}$ =0.733=73.3%

The ministry should come up with interventions since the chance of testing positive having visited at least one district is high (73.3%).

5. Sketch drawing



Distance (D) from super market to junction?

Speed = 50km/h

Time = 45minutes

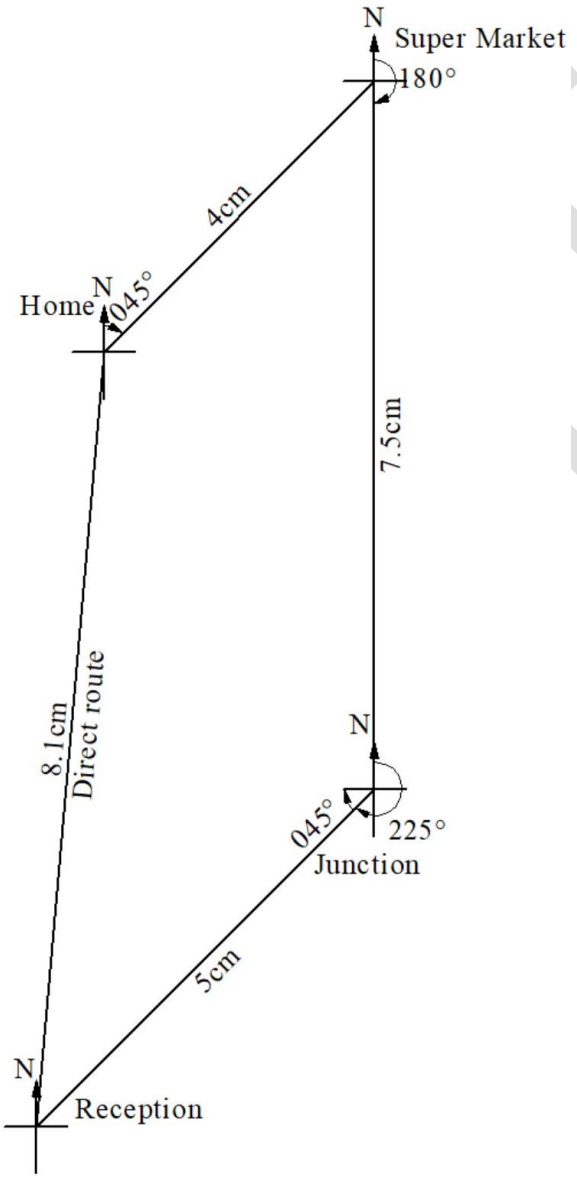
= $\frac{45}{60}$ hours **or** Time= $\frac{3}{4}$ hours **or** Time= 0.75hours

D = Speed × Time

D = 50 × 0.75

D = 37.5km

Accurate drawing



(a)(i) State the bearing of the Home from the Reception.

(a)(ii)Direct route distance= 8.1 cm

= (8.1×5) km

= 40.5 km

(ii) Distance = 40.5 km

Speed = 50 km/h

Time = $\frac{Distance}{Speed}$

Time = $\frac{40.5}{50}$

Time = 0.81hours

Time = (0.81×60) minutes

Time = 48.6 minutes

Time ≈ 49minutes

We will leave home 49 minutes to 2:00 PM to reach the party venue on time.

OR

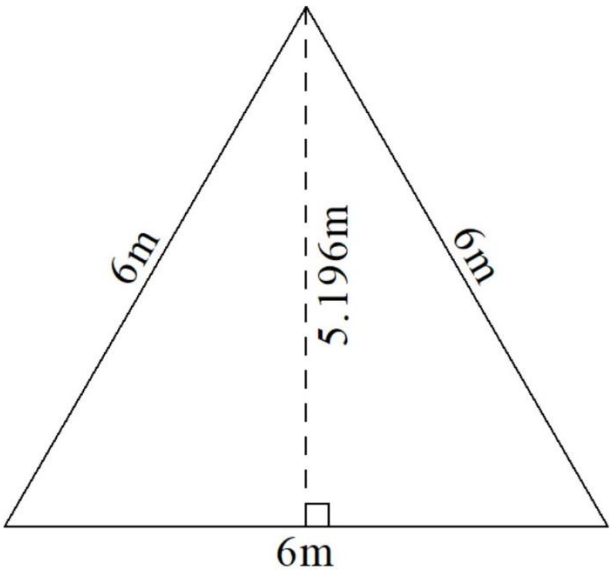
We will leave home at 1:11PM =(2:00PM – 49 Minute) to reach the party venue on time.

QUESTION 6

Area of the triangular sides

Height (h) of the triangular side = $\sqrt{(6^2 - 3^2)}$

= 5.196m **or** ($\sqrt{27}$)m **or** ($3\sqrt{3}$)m



Area of one triangular side $= \frac{1}{2} \times$ base $\times$ height

$= \frac{1}{2} \times 6 \times 5.196$

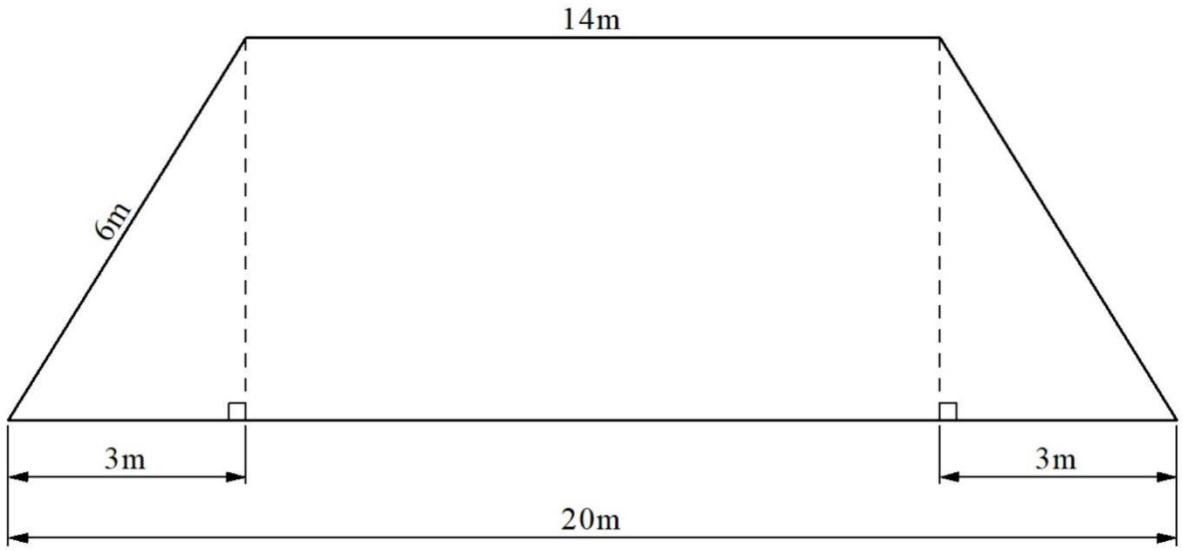
$= 15.588\text{m}^2$

Area of the two triangular sides = 2× 15.588

$= 31.176\text{m}^2$

Note: Accept any method of finding the area of the triangular side.

Area of the trapezium sides



Height(h)of the trapezium $= \sqrt{(6^2 - 3^2)}$

$= 5.196\text{m}$ **or** $(\sqrt{27})\text{m}$ **or** $(3\sqrt{3})\text{m}$

Area of one trapezium side $= \frac{1}{2} \times \text{h}\,(\text{a} + \text{b})$

$= \frac{1}{2} \times 5.196\,(14 + 20)$

$= 88.332\text{m}^2$

Area of the two trapezium sides = 2× 88.332

$= 176.664\text{m}^2$

Total area of the roof = 31.176 + 176.664

$= 207.84\text{m}^2$

Usable area of each iron sheet = (10×0.3)×(2.623×0.3)

= 2.3607m^2

Number of iron sheets = $\frac{\square\square\square\square\square\ \square\square\square\square\ \square\square\ \square\square\square\ \square\square\square\square}{\square\square\square\square\square\square\ \square\square\square\square\ \square\square\ \square\square\square\square\ \square\square\square\square\ \square\square\square\square\square}$

$= \frac{\mathbf{207.84}}{\mathbf{2.3607}}$

= 88.042

≈ 89

Cost of iron sheets

Type A	**Type B**
A discount of 6% on every 50 iron sheets	A discount of 10% on every 70 iron sheets
$(\frac{100-6}{100} \times 33{,}000 \times 50) + (89\text{-}50) \times 33{,}000$ =2,838,000/=	$(\frac{100-10}{100} \times 42{,}000 \times 70) + (89\text{-}70) \times 42{,}000$ =3,444,000/=

Advise: My neighbour should buy Type A iron sheets.

Reason: They are cheaper and she will minimise costs.

OR

Advise: My neighbour should buy Type B iron sheets.

Reason: Since they are expensive, they are likely to be of a better quality than Type A.

			SCORE
1	**TOTAL AREA OF THE ROOF**		
(a)	**Area of the triangular side**		**Subtotal- 04**
(i)	Height		01
(ii)	Substitution for Area		01
(iii)	Area	value	01
		unit	01
(b)	**Area of the trapezium side**		**Subtotal-04**
	Height		02
	Area	Use of formula	01
		Value	01
(c)	**Total area of the roof**	operation	01
		Correct value	01
2	**Usable area of the iron sheet**	Correct Value	01
3	**Conversion of units**	Correct value	01
4	**Number of iron sheets**	operation	01
		Correct value	01
		Actual number	01
5	**Cost of the iron sheets**		**Subtotal-03**
	Correct total cost without discount		01
	Discounted cost	operation	01
		Correct value (for either)	01
			Subtotal-02
6	**Advice/Justification**	Type of iron sheet	01
		Reason	01
TOTAL SCORE			**20**

662/1
NUTRITION AND
FOOD TECHNOLOGY
Paper 1
2024
2½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

NUTRITION AND FOOD TECHNOLOGY

Paper 1
Theory

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **six** *examination items. It has* **two** *sections;* **A** *and* **B**.

Section **A** *has* **three compulsory** *examination items*.

Section **B** *consists of* **two** *parts;* **I** *and* **II**. *Part* **I** *is* **compulsory**. *Answer only* **one** *examination item from Part* **II**.

Answer **five** *examination items in all*.

Any additional item answered will **not** *be scored.*

All *answers* **must** *be written in the answer booklet(s) provided.*

 Turn Over

SECTION A

Answer **all** *items in this section.*

Item 1

A councillor observed that children in many homes in the community have injuries resulting from cuts and burns. However, the councillor and most of the residents lack knowledge on how to prevent the occurrence of such injuries and how to manage them when they occur.

Task

As a learner of Nutrition and Food Technology, write the necessary information explaining to the Councillor the;

(a) ways of controlling the occurrence of such injuries in the community.

(b) advice that should be given to the parents of the affected children on how to manage such injuries before taking them for further treatment.

Item 2

The main source of water used in one of the local communities in Uganda is a nearby stream as shown in the figure **1**.

Fig.1 *Source of water for the community*

In a community meeting that you attended, the Community Health Worker reported that many residents had suffered from stomach-ache, vomiting and diarrhoea suspected to be associated with their source of water.
You have been identified as one of the community members who can help come up with ideas to prevent the occurrence of those water related conditions in this community.

Task
Make a write up that you can use to explain to this community the steps they can take to ensure that the water from their source is safe to use.

Item 3

You are a member of a family that lives in Central Uganda that is organizing an introduction ceremony for their daughter. However, some of the invited guests are from Western Uganda and Northern Uganda. The organizing committee has hired a cook and also chosen you to be in charge of the meals for the occasion.

Task
Write a suitable main course menu as a guide to the cook in charge of preparing the meal for the occasion.

SECTION B

Part I (Compulsory)

Item 4
An area member of parliament provided pineapple and mango seedlings to the residents and promised them market for the fruits. However, after a plentiful harvest of the fruits, the market promised was not realized hence prompting the farmers to sell their produce to the local market. This was not sufficient yet they had no means of exporting the fruits in their fresh form.

Task
Write instructions of a food processing method the farmers can use to process and preserve those fruits in order to widen the market for their produce.

Part II

Answer only **one** *item in this part.*

Item 5

Research in one of the communities in Uganda has revealed that most of the households have most of the necessary foods available. However, children between the ages of two and five years who live in those households have signs of nutritional imbalance as shown in figure **2**.

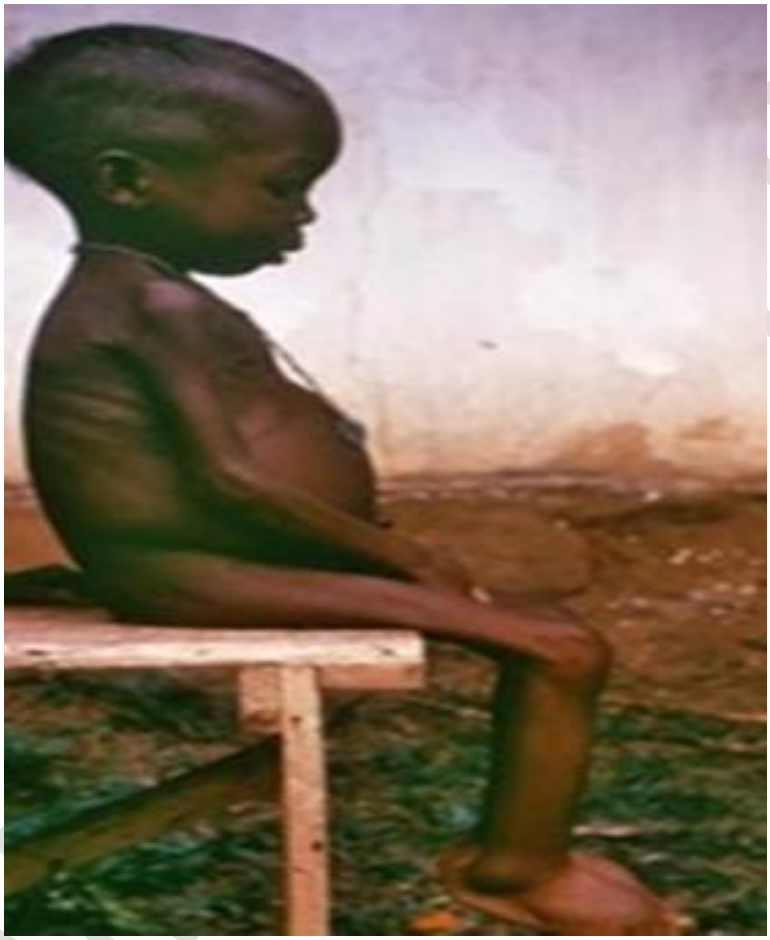


Fig: 2 *One of the children in the community*

They have thin, weak, brown hair and distended stomach. Most of them have average weight of 10 kg compared to the normal weights for children of the same age as shown in the table **1**.

Age	**Weight in kilograms**
3 Months	6
6 Months	7.5
1 Year	10
2 Years	12
3 Years	14
4 Years	16
5 Years	18

Table 1 *Normal weights for children*

The community now believe that their children were bewitched due to lack of a clear understanding of this nutritional health condition.

Task

(a) Giving reasons write down the information that the parents need to know so as to recognize that their children are not bewitched but suffer from a nutritional imbalance.

(b) Make a write up that a Community Health Worker can use to explain to the parents, the various ways of preventing that nutritional imbalance.

(c) With reasons, explain to mothers of such children what foods they should feed them on in order to correct that nutritional imbalance.

Item 6

During a home-based vaccination campaign, a vaccinator observed that in one of the homes the children she had vaccinated had curved legs as shown in figure **3**. The state worries mothers in the community but they do **not** know what to do about it. In her interaction with the vaccinator, one of the mothers revealed that their diet is composed of polished posho, boiled cassava and green vegetables.

Fig. 3 *Children with curved legs*

Task

(a) Giving reasons identify the nutritional imbalance suffered by the children in this community.

(b) Make a write up advising mothers of such children in that community on the various ways of preventing the state in which their children are.

(c) With reasons, propose a suitable diet that can help to correct the condition suffered by these affected children.

END

662/1
NUTRITION AND
FOOD TECHNOLOGY
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

NUTRITION AND FOOD TECHNOLOGY

Paper 1
Theory

SCORING GUIDE

CONSTRUCT: Apply the knowledge and principles of nutrition and food technology to solve health related problems in the community and contribute to economic growth and development of Uganda through environmentally sustainable practices.

S/N	ELEMENT OF CONSTRUCT	BASIS OF ASSESSMENT	SUCCESS CRITERIA	
			DESCRIPTION	**SCORE**
1.	Appreciate living a healthy lifestyle through understanding the need for hygiene, the cultural differences in food and safety in the home	1. Explains measures of preventing ill health due to hygiene, water sources and common accidents in the home.	Explain six preventive measures against ill health	3
			Explain four preventive measures against ill health	2
			Explain two preventive measures against ill health	1
			Explain one preventive measures against ill health or no response	0
		2. Describes steps in administering first aid	Precisely describes all steps of the required first aid	5
			Precisely describes most of the steps of the required first aid	4
			Describes all the steps of the required first aid but not precisely	3
			Precisely describes few steps of the required first aid	2
			Only mentions all steps but does not describe the process	1
			Only mentions a few steps but does not describe the process/ no response	0
		3. Plans meals for people of different categories	Chooses suitable dishes for the occasion, balances meal, caters for people's needs and gives a variety of dishes	4
			Chooses suitable dishes, balances meal, caters for people's needs, dishes not varied	3
			Chooses suitable dishes, balances meal, people's needs not well taken care of, gives a variety of dishes	2
			Chooses suitable dishes, meal not balanced, people's needs not well catered for, gives a variety of dishes	1
			Chooses unsuitable dishes for the occasion, meal not balanced, people's needs not well catered for, gives variety of dishes, OR No response	0

CONSTRUCT: Apply the knowledge and principles of nutrition and food technology to solve health related problems in the community and contribute to economic growth and development of Uganda through environmental and sustainable practices.

S/N	ELEMENT OF CONSTRUCT	BASIS OF ASSESSMENT	SUCCESS CRITERIA	
			DESCRIPTION	**SCORE**
2.	Apply knowledge of nutrition and food technology to process, preserve and package food	Identify the suitable food process.	Select suitable method and equipment for processing a given food	1
			Wrongly selects method and equipment/ no response	0
		Describes processing techniques used in processing and preservation food into a suitable products.	Gives all steps chronologically. States principle clearly depending on the method chosen.	4
			Give all steps chronologically. Some principle not stated clearly.	3
			Gives all steps but not chronologically. Principle not clearly stated.	2
			Gives a few steps not chronologically. Principle not given	1
			Steps given are not sufficient for method of processing. Not chronologically stated Principles lacking OR No response	0
		Describes the quality of packaging materials for food	States and describes all the characteristics of a material suitable for packaging the food product	2
			Describes a few characteristics of the material suitable for packaging a food product	1
			Doesn't describe qualities of the material suitable for packaging a food product	0

CONSTRUCT: apply the knowledge and principles of nutrition and food technology to solve health related problems in the community and contribute to economic growth and development of Uganda through environmental and sustainable practices.

S/N	ELEMENT OF CONSTRUCT	BASIS OF ASSESSMENT	SUCCESS CRITERIA	
			DESCRIPTION	SCORE
3.	Apply the knowledge of nutrition to prevent and manage different effects of nutritional imbalances in a community.	Identify specific nutritional imbalance with suitable justification	Gives specific name of nutritional health condition and gives 3 – 4 correct reasons	3
			Gives specific name of nutritional health condition and gives 1 – 2 correct reasons	2
			does not give specific names and gives3-4 correct reasons	1
			Does not specify name of nutritional health condition, no reasons or gives reasons but no specific name of nutritional imbalance	0
		Evaluates the preventive measures to nutritional imbalances	Explains 5 preventive measures of the nutritional imbalance	3
			Explains 3 -4 preventive measures of the nutritional imbalance	2
			Explains 1 - 2 preventive measures of the nutritional imbalance	1
			Explains 1 preventive measure of the nutritional imbalance or doesn't give any	0
		Proposes diet to manage the effects of nutritional imbalances	Gives foods containing all the necessary nutrients with reasons	4
			Gives food with proteins, carbohydrates, minerals and vitamins and leaves out food that contains lipids and gives all reasons	3
			Gives proteins, minerals and vitamins and leaves out lipids and carbohydrates and gives all reasons	2
			Gives food containing carbohydrates and lipids but leaves out proteins foods and gives all reasons	1
			Doesn't give food with protein, carbohydrates, lipids but gives food with vitamins and minerals	0
		Gives recommendation for further management of nutritional imbalance	Gives appropriate recommendations	1
			Doesn't give appropriate recommendations or doesn't give any recommendation.	0

662/2
Nutrition and
Food Technology
Paper 2
2024
4 ½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

NUTRITION AND FOOD TECHNOLOGY

Paper 2
Practical

Planning Session: 2 hours
Practical Test: 2½ hours

INSTRUCTIONS TO CANDIDATES:

This paper has **one compulsory** *examination item.*

Read through the examination item carefully, then prepare a plan of work and a list of ingredients as follows. (*Use carbon paper to make duplicate copies*).

(i) *Write your name, personal number and test number on your plan and on the shopping list. Give them; with the question paper to the supervisor.*

(ii) *Write down the dishes that you decide to make. Do* **not** *copy the test.*

(iii) *Beside the dishes chosen, show the quantities of the ingredients required for each* (*a full recipe is* **not** *necessary*).

(iv) *On a separate sheet, make a shopping list showing total quantities of ingredients required. Remember to use carbon paper again.*

(v) *Complete the plan of work to show the order of working, the methods to be used and the length of time required to make each dish.*

(vi) *The amount cooked should be sufficient in relation to the requirements of the test.*

(vii) *Recipes and textbooks may be used during both the planning and examination session but constant reference to them during the examination is discouraged.*

(viii) *The question paper and one copy of the plan and shopping list will be returned to you by the examiner at the beginning of the practical test. You will be expected to follow your plan and order of work.*

(ix) *At the end of the examination, the test item paper is to be handed over to the examiner. You may retain the carbon copy of the time plan and shopping list.*

Item 1

Luweero is one of the districts in Central Uganda well known for growing plenty of mangoes, pineapples, passion fruits and tomatoes which farmers sell in their local markets as shown in the figure below.

Fig 1: A variety of farm produce in Luwero market

However, the farmers sell these farm produce at low prices. Many times they incur great losses as their fruits rot in in the limited local markets available and yet they also lack knowledge of value addition through food processing and presevation.

Task:

(a) Make a processed food product to show the farmers in Luwero how they can add value to one of their farm produces above in order to increase its shelf life and marketability.

(b) Prepare a dish to demonstrate to the farmers how a processed food product can be used in preparing a meal.

(c) Prepare three other dishes that will be served together with the dish in (b) above in a two course meal you and two farmers will eat after the meal preparation and food processing demonstrations.

END

662/2
NUTRITION AND
FOOD TECHNOLOGY
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

NUTRITION AND FOOD TECHNOLOGY

Paper 2
Practical

New Lower Secondary Curriculum

SCORING GUIDE

NUTRITION AND FOOD TECHNOLOGY

PAPER 2

SCORING GUIDE:

CONSTRUCT: Apply the knowledge and principles of nutrition and food technology to solve health related problems in the community and contribute to economic growth and development of Uganda through environmentally sustainable practices.

ELEMENT OF CONSTRUCT	BASIS OF ASSESSMENT	SUCCESS CRITERIA	
Apply knowledge of food technology to process and package healthy food products, use food products to prepare dishes and attractively serve meals	**PLANNING**	**DESCRIPTION**	**SCORE**
		Good choice of dishes (with correct reasons for the choice) in relation to task, balanced diet, logical order of work, appropriate costing, time appropriately allocated and planned previous preparation.	5
		Good choice of dishes(with correct reasons for the choice) in relation to task, balanced meal, no logical order of work, appropriate costing, time not appropriately allocated and planned previous preparation.	4
		Good choice of dishes(with correct reasons for the choice) in relation to task, meal not well balanced , logical order of work, over or under estimated cost of materials, time appropriately allocated and planned previous preparation.	3
		Good choice of dishes (with correct reasons for the choice) in relation to task, meal not well balanced , logical order of work, over or under estimated cost of materials, time realistically allocated and no previous preparation.	2
		Poor choice of dishes in relation to task, meal not balanced, no logical order of work, appropriate costing, time not appropriately allocated and planned previous preparation.	1
		Poor/wrong choice of dishes in relation to task, unbalanced meal, no logical order of work, inappropriate costing, poor time allocation and no previous preparation planned or no response.	0

	MANIPULATION	Appropriately uses equipment(cooking, serving, etc.), observes hygiene(kitchen, personal, food),economically uses resources(ingredients, time, fuel), adheres to plan of work, follows appropriate procedures in both cookery and food processing, correctly lays table, serves meal appropriately and packages food products appropriately	8
		Appropriately uses equipment(cooking, serving, etc.), observes hygiene(kitchen, personal, food),economically uses resources(ingredients, time, fuel), doesn't adhere to plan of work, follows appropriate procedures in both cookery and food processing, doesn't correctly lay table, serves meal appropriately and packages food products appropriately	7
		Appropriately uses equipment(cooking, serving, etc.), observes hygiene(kitchen, personal, food),wastefully uses resources(ingredients, time, fuel), doesn't adhere to plan of work, follows appropriate procedures in both cookery and food processing, doesn't correctly lay table, serves meal appropriately and packages food products appropriately	6
		Appropriately uses equipment(cooking, serving, etc.), doesn't observe hygiene well (kitchen, personal, food),wastefully uses resources(ingredients, time, fuel), adhere to plan of work, doesn't follow some procedures appropriately in both cookery and food processing, doesn't correctly lay table, serves meal appropriately and packages food products appropriately	5
		Has challenges in using some equipment(cooking, serving, etc.), doesn't observe hygiene throughout (kitchen, personal, food),wastefully uses resources(ingredients, time, fuel), doesn't adhere to plan of work, follows procedures appropriately in both cookery and food processing, correctly lay table and doesn't package food products appropriately and serve meal appropriately	4
		Has challenges in using some equipment(cooking, serving, etc.), doesn't observe hygiene throughout (kitchen, personal, food),wastefully uses resources(ingredients, time, fuel), doesn't adhere to plan of work, follows procedures appropriately in both cookery and food processing, correctly lays the table, doesn't serve meal appropriately but packages food products appropriately	3
		Has challenges in using some equipment(cooking, serving, etc.), observes hygiene throughout (kitchen, personal, food),wastefully uses resources(ingredients, time, fuel), doesn't adhere to plan of work, doesn't follow procedures appropriately in both cookery and food processing, doesn't correctly lay table, doesn't serve meal appropriately and packages food products appropriately	2

		Wrongly uses most of the equipment(cooking, serving, etc.), doesn't observe hygiene (kitchen, personal, food),wastefully uses resources(ingredients, time, fuel), doesn't adhere to plan of work, doesn't follow procedures appropriately in both cookery and food processing, doesn't correctly lay table, doesn't serve meal appropriately and doesn't package food products appropriately	1
		Wrongly uses most of the equipment(cooking, serving, etc.), doesn't observe hygiene (kitchen, personal, food),wastefully uses resources(ingredients, time, fuel), doesn't adhere to plan of work, doesn't make some dishes, doesn't follow procedures appropriately in both cookery and food processing, doesn't lay table, doesn't serve meal appropriately and doesn't package food products appropriately	0
	PRODUCT	Product exhibits exceptional taste and flavor, with well-balanced seasoning and natural flavors enhanced. Processed food demonstrates excellent texture and consistency, with appropriate tenderness, crispness, or smoothness, depending on the food type.	3
		Product generally has good taste and flavor, but some minor adjustments may be needed to enhance the overall experience. Food product generally has good texture and consistency, but some aspects may require minor improvements.	2
		Food product lacks taste and flavor, resulting in an unappetizing or dull eating experience. Product has noticeably poor texture or consistency, making it unappealing to consume.	1

621/1
PERFORMING ARTS
Paper 1
2024
2 ½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PERFORMING ARTS

Paper 1
Aural, Composition and Theory

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **six** *examination items. It has sections* **A** *and* **B**.

Section **A** *has* **two** *parts; part* **I** *and* **II**. *Part* **I** *is* **compulsory**. *Choose* **one** *item from Part* **II**.

Answer **all** *the items in Section* **B**.

Answer **five** *items in all.*

Any additional item answered will **not** *be scored.*

All *answers* **must** *be written in the Manuscript paper and answer booklet(s) provided using* **blue** *or* **black** *ink.*

SECTION A

This section has **two** *parts* **I** *and* **II**.

Part I (Compulsory)

Item 1.

When war broke out in South Sudan, some of the people from there crossed to Uganda and settled in camps as refugees. Later, they started fighting each other because of the differences in their ethnic backgrounds.

The Minister for Relief and Disaster Preparedness suggested that one of the ways to unite these people is through songs. Someone has composed one part of the song for that purpose.

Task:

Listen to the recording. Write the opening phrase therein and compose a finishing phrase.

Part II

Answer **one** *item from this part.*

Item 2.

Kajugo has been invited to perform at a youth conference. He has been requested to perform different art forms. However, he has never performed any other art form apart from Music.

Task:
As Kajugo's cousin studying Performing Arts, guide him on how to develop an art piece that is suitable for the function.

Item 3.

The Performing group that entertains audiences at Vision Theatre performs songs only. The audience has repeatedly asked the manager to provide different art forms. The manager has come to you for help.

Task:
As a Performing Arts student, guide him on how to develop another art form.

SECTION B

Answer **all** *items in this section.*

Item 4.

Peter, a well-known business man in Kerere Town Council, organised his daughter's traditional marriage ceremony. He requested Koko Troupe to entertain guests with traditional dances. The troupe performed traditional dances to recorded traditional music and added ideas from different cultures of the world. The guests were very happy but Peter was disappointed.

Task:
As a Performing Artist, explain why Peter and his guests responded differently to the performance.

Item 5.

Jean is an upcoming playwright. In one of the National competitions, she won a medal for the best play, "The Disowned". Ray Drama Group has been performing Jean's play for commercial gains without her permission. The group has also taken the play to Nkunda Television under a new title, "The Rejected". The play has become popular in the community that watches Nkunda Television.

Jean has read in the local newspaper that Uganda Wildlife Authority (UWA) has sued them for using some materials from endangered animals.

Jean has now threatened to also report the group.

Task:

Advise the owners of Ray Drama Group.

Item 6.

Emily is a celebrity performer of different art works which have gone viral on social media. Majority of the youths love to sing and perform her artworks on different social occasions. Kibibi Memorial College will host a parents' day at the end of the year and students have requested the Head teacher to invite Emily to perform and share with them about performing art works. The Head teacher is not interested in Emily's art artworks and has declined the students' request.

Task:

Make a write up convincing the Head teacher to accept the students' request.

END

621/1
PERFORMING ARTS
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PERFORMING ARTS

Paper 1
Aural, Composition & Theory

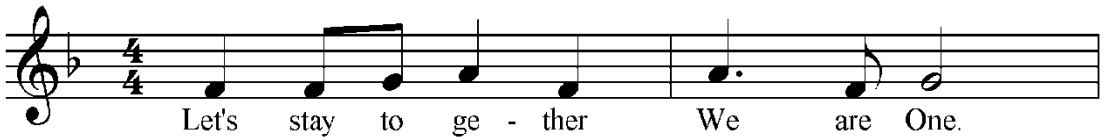
SCORING GUIDE

SAMPLE RESPONSES

SECTION A

Item 1.

The scoring will follow the Basis of Assessment. The recorded part is given here below.



Each individual learner will give a finishing phrase according to how they have understood the opening phrase. This should follow the guidance given in the Basis of Assessment.

Item 2.

This is a multiple perspective item. The learner can choose either to respond using drama or dance NOT both. They should follow the elements, principles and techniques of either art form.

Example:

Kajugo has been performing songs all his life, so that implies he already has a song to perform at the conference. I would therefore give guidance on how to develop a play/dance since this is what he should add to his performance. I will therefore take him through the elements, principles and techniques of dance/drama.

One of the major elements of dance/drama is theme. Since Kajugo is at a youth conference, he needs to be mindful of the theme of the conference. Therefore, the art work he decides to perform should be in line with the conference. This will direct the lay out of the art work and will give him proper direction on what he wants to do. The theme must always be at the forefront of any given art piece.

Elements of Drama

(Plot, Character, Diction/language, Spectacle, Theme, Mood, Rhythm, Setting, Music)

Elements of Dance

(Body, Action, Space, Time, energy)

Kajugo must also be mindful of the techniques that he is going to employ while coming up with his dance/drama. One of the techniques of drama is Symbolism. Kajugo can use symbolism to write his drama piece where he chooses something that is representative. For example, a character can be representative of a larger society. Whatever the character goes through can ably represent what the large community goes through. This will help the youths at the conference to relate with the character and learn from him or her.

Techniques of Drama

(Voice Dynamics, Blocking/Movement, Mime, Improvisation, Body Language, Symbolism, Flashback, Dialogue, Action)

Techniques of Dance

(African Dance Technique, Cunningham, Graham, Limon, Duncan, Hawkin)

Finally, Kajugo must be mindful of the principles of performing arts. He, for instance should consider the originality of the dance/drama he is going to come up with. His ideas should be original so that his art work is fresh to his audience and should also not infringe on the copyright of other people's work. He should therefore work with this knowledge and come up with an original piece which will capture the attention of the youths at the conference.

Principles of Dance/Drama
(Originality, Creativity, Audience, Genre, Aesthetics, Purpose)

The elements, principles and techniques of dance/drama are important to the development of an artwork. When followed and used appropriately, Kajugo is bound to come up with a masterpiece that will be suitable for a youth conference.

NOTE:

1. **The response above has explained only one of either an element, technique or principle. The learner however is expected to explain according to the expectations of the scoring criteria.**

Items 3, 4, 5 and 6 follow the same lay out of the essay as in Item 2. The responses should follow the Basis of Assessment and Success Criteria of each item.

SECTION B

Item 4

- African attributes used in the making of Performing Art works
  (Costume, Props, Instruments, Styles of singing/dancing, sound production, amplification)
- Western Influences and how they affect the making of Art works in our society.
  Audience Preference as far as Performing Arts is concerned

Item 5

- Ethical Practices associated with Performing Arts
  (Respect of Self, Others, their trade/work, the craft, Artist's Moral conduct, Responsibility, dress code, societal expectations, culture)
- Legal Practices in Performing Arts
  (Copyright laws)
- Environmental Practices associated with Performing Arts
  (Proper use and sustainability of the environment)

Item 6

- The Benefits/opportunities/advantages of Performing Arts to society.
  (Positive impact- Career choices, Employment, Exposure and fame, Advertisement of products, Entertainment…)
- The challenges/ hindrances/disadvantages of Performing Arts in Society.
  (Negative impact- drugs, sexual immorality, Unhealthy competition, Hatred, Indecency…)

621/1
PERFORMING ARTS
Paper 1
2024

FOR RECORDING

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PERFORMING ARTS

Paper 1

Aural and Composition

Turn Over

SECTION A

1. (a) **AURAL AND COMPOSITION**

This is the official recording of the Aural and Composition item of the Performing Arts Paper **1**.

Read the scenario provided in the examination paper in two minutes.

Silence: 2 minutes

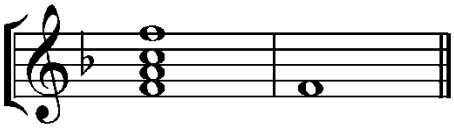
Listen to the recording of the opening phrase of the song. It will be played through **four** times with intervals, during which you will write a draft of your response.

After the final play through, you will have twenty minutes in which to write the phrase you have listened to, and your own composed phrase that should include the music and lyrics.

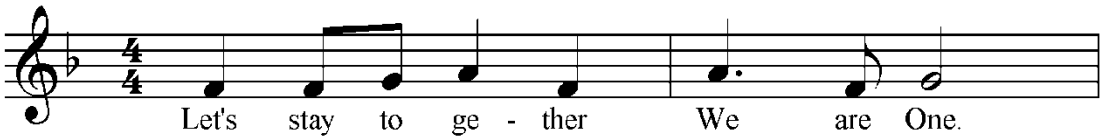
Listen to the speed of the crotchet or quarter note.

Silence: 10 seconds

Listen to the tonic chord and the keynote followed by the opening phrase. The song begins on the first beat of the bar.



Silence: 10 seconds



Silence: 40 seconds

Listen to the **second** play through.

Silence: 40 seconds

Listen to the **third** play through.

Silence: 40 seconds

Listen to the **final** play through.

You have **20** minutes in which to write the opening phrase and your composed phrase.

END

621/2
PERFORMING ARTS
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PERFORMING ARTS

Paper 2
Performance: Sight Singing

INSTRUCTIONS TO CANDIDATES:

You are required to sing the lyrics of **one** *piece from those given to you by the examiner.*

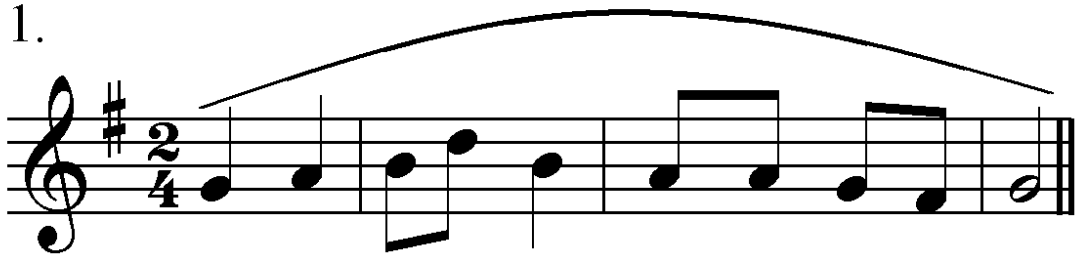
You are at liberty to request the examiner to allow you to repeat (*to a* **maximum of two** *times*), once *you realise that the previous singing was not well done.*

You will be given **one** *minute to prepare*.

ALTERNATIVE TASKS:

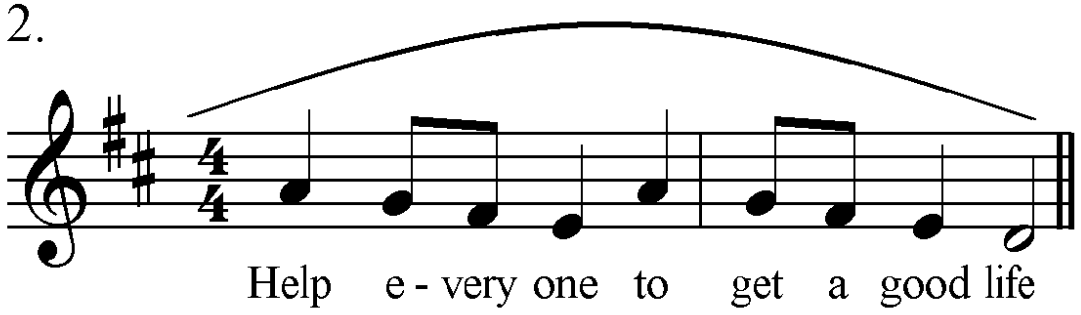
Either

1.



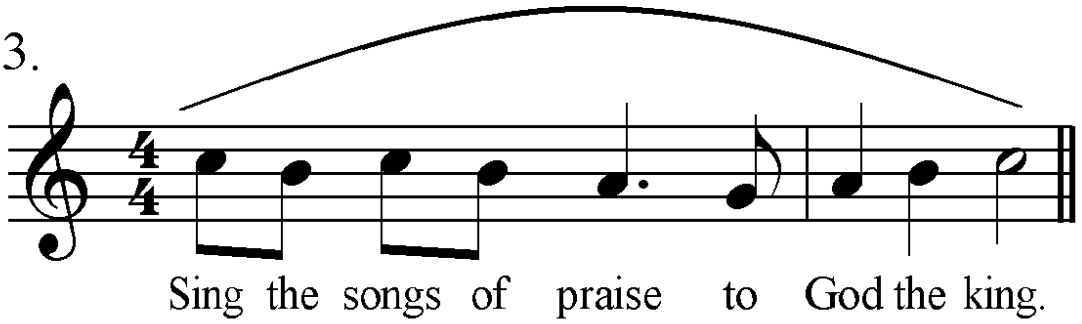
Or

2.



Or

3.



END

621/2
PERFORMING ARTS
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PERFORMING ARTS

Paper 2
Performance

SCORING GUIDE

UCE 621/2 SCORESHEET FOR PERFORMING ARTS PERFORMANCE EXAMINATIONS 2024

CANDIDATE'S NAME ……

Random Number ……Personal Number……

SIGHT SINGING

	LEVELS OF ASSESSMENT/SUCCESS CRITERIA					
BASIS OF ASSESSMENT	**Excellent 4 pts**	**Good 3 pts**	**Fair 2 pts**	**Poor 1 pt**	**Didn't Try 0 pts**	**Score**
LYRICS	All lyrics are sung accurately	2/3 of the Lyrics are sung accurately	Multiple lyrics are incorrectly sung	Can hardly articulate the lyrics	Did not try the lyrics	
PITCH	Every note of the piece is sung correctly	2/3 of the pitches are sung correctly	½ of the pitches are sung correctly	There are a few or no pitches sung correctly	Did not sing any of the pitches	
RHYTHM	Rhythm is performed accurately	2/3 of the rhythm is performed correctly	½ of the rhythm is performed correctly	There are a few or no correct rhythm performed	Did not recognize any rhythm	
BEAT	Sings steadily on the beat throughout the piece	2/3 of the piece is performed on the beat	½ of the piece is performed on the beat	Can hardly keep the beat	Does not sing on the beat	
TOTAL SCORE						

UCE 621/2 SCORESHEET FOR PERFORMING ARTS PERFORMANCE EXAMINATIONS 2024

CANDIDATE'S NAME ……

Random Number …….. Personal Number……

INSTRUMENTAL PERFORMANCES (AFRICAN, WESTERN, CONTEMPORARY)

TITLE:						
	LEVELS OF ASSESSMENT/SUCCESS CRITERIA					
BASIS OF ASSESSMENT	**Highly Effective 4 pts**	**Effective 3 pts**	**Developing 2 pts**	**Beginning 1 pt**	**Did not try 0 pts**	**Score**
TEMPO	Maintained a steady tempo throughout the piece	Mostly maintained a steady tempo throughout, with one or two hesitations	Hesitated multiple times	Tempo was very inconsistent	Did not use instrument	
TONE QUALITY (Colour, Freedom, Control, Resonance, Blend)	Fully demonstrated an impressive tone quality and observed freedom, control and resonance	Most of the components of tone quality were demonstrated.	Demonstrated a few components of tone quality	The tone quality was not well developed	Did not perform	
RHYTHMIC	Played all rhythms	Played most rhythms	Played a few	Played rhythms		

ACCURACY	accurately	accurately with a few minor errors	rhythms with some major errors	with many major errors	Did not perform	
PITCH ACCURACY	Pitched all notes accurately	Mostly pitched notes accurately	Played a few notes with some major errors in pitch	Played notes with many major errors in pitch	Did not perform	
PLAYING TECHNIQUE(Touch, Musicianship, improvisation, posture)	Demonstrated proficiency in musicality	Performed the piece with a few minor errors	Performed the piece with some major errors	Performed the piece with many major errors	Did not perform	
EXPRESSION (Dynamics, Phrasing, Articulation)	Played the piece with expression, showing full understanding of the dynamics, phrasings and articulation markings in the piece	Played a bit of all the components throughout the piece: Dynamics Articulations, phrasing	Followed 1-2 of the following components consistently throughout the piece: Dynamics, Articulations, phrasing	Followed one component throughout the piece: Dynamics, Articulations, phrasing	Did not follow any of the dynamic, phrasing or articulation markings in the piece	
TOTAL						

UCE 621/2 SCORESHEET FOR PERFORMING ARTS PERFORMANCE EXAMINATIONS 2024

CANDIDATE'S NAME ……

Random Number ……Personal Number……

VOCAL PERFORMANCE (AFRICAN/WESTERN/ CONTEMPORARY)

TITLE:						
	LEVELS OF ASSESSMENT/SUCCESS CRITERIA					
BASIS OF ASSESSMENT	**Highly Effective 4 pts**	**Effective 3 pts**	**Developing 2 pts**	**Beginning 1 pt**	**Did not try 0 pts**	**Score**
TECHNICAL PROFICIENCY (Pitching, Rhythm and Pulse)	Maintained/Demonstrated proficient skills in pitching and keeping rhythm	Mostly performed correct pitches, kept rhythm and pulse. Only a few mistakes were made	Performed the piece with correct pitches, rhythm and pulse with a few major mistakes	Demonstrated many or multiple mistakes	Did not perform	
INTERPRETATION & EXPRESSION (Dynamics, Phrasing, Articulation)	Sung with full understanding of the expression, observed dynamics and phrasing	Sung with expression and observed most of the components	Made some minor mistakes	Did not observe most of the components	Did not perform	
DICTION (Clarity of words, Pronunciation,	Distinctly articulates the words throughout the piece	Made a few minor mistakes in articulation, pronunciation and clarity of	Few major mistakes made in the components of	Many major mistakes made that affected	Did not perform	

Authenticity)		words	diction	diction		
TONE QUALITY (Naturalness, Freedom, Colour, Control, Blend, Resonance)	Fully demonstrated an impressive tone quality and observed freedom, control and resonance	Most of the components of tone quality were demonstrated.	A few components of tone quality were demonstrated.	The tone quality was not well developed	Did not perform	
STAGE PRESENCE (Connection with the audience, Stage use, Confidence)	Performed with confidence, fully engaged the audience and effectively used the stage	Performed with confidence, fully engaged the audience but did not fully use the stage	Exhibited some confidence, engaged the audience and used the stage minimally	Lacked confidence, did not engage the audience and used the stage minimally	Did not perform	
OVERALL ARTISTIC IMPRESSION (Cohesion & Synchronization, overall impact and Artistry of the performer)	Exhibited impressive artistry showing full understanding of musicality	Mostly impressive performance with minimal improvisation	Had occasional mistakes in some performing aspects	Was inconsistent in expressing self during performance	Did not perform	
Total						

UCE 621/2 SCORESHEET FOR PERFORMING ARTS PERFORMANCE EXAMINATIONS 2024

CANDIDATE'S NAME ……

Random Number …… **Personal Number**……

DRAMA PERFORMANCE

TITLE:						
	LEVELS OF ASSESSMENT/SUCCESS CRITERIA					
BASIS OF ASSESSMENT	**Excellent 4 pts**	**Good 3 pts**	**Fair 2 pts**	**Poor 1 pt**	**Didn't Try 0 pts**	**Score**
CHARACTERISATION (Role interpretation, Awareness of plot)	Portrays character with a believable personality and mannerisms as shown in the script	Portrays character with a believable personality and mannerisms as shown in the script but with a few and minor inconsistencies	Portrays character as shown in the script but with major inconsistencies	Hardly portrays character as shown in the script and has many major inconsistencies	Did not perform	
LINE DELIVERY (Knowledge of lines, Articulation, Intonation)	Lines are spoken audibly, clearly and are easy to understand	Lines are spoken loudly, clearly and are easy to understand with a few minor mistakes in either memorization, articulation or intonation	Many lines are not spoken loudly and clearly, and major mistakes are made quite often	The performer generally fails to exhibit knowledge and purpose of the lines	Did not perform	

STAGING AND BLOCKING	Uses stage appropriately and makes motivated movements that are true to the performance	Mostly uses stage appropriately and makes motivated movements that are true to the performance	Makes many unmotivated movements and often fails to use the stage appropriately	Hardly makes reasonable movements and uses the stage with very little sense of purpose	Did not perform	
TECHNICAL ASPECTS (Setting, Lighting, Sound, Costumes, Props)	Designs and applies technical quality aspects that are meaningful to the performance	Designs and applies quality technical aspects that are meaningful to the performance but with minimal inappropriate choices	Designs and applies technical aspects but with major inappropriate choices	There is a general lack of appropriate designs and application of technical aspects	Did not perform	
STAGE PRESENCE (Connection with the audience, Confidence)	Performs with confidence and fully engages the audience	Mostly performs with confidence and engages the audience	Performs with little confidence and does not sustain the attention of the audience	Generally lacks confidence, and fails to attract the audience's attention	Did not perform	
GENERAL ARTISTIC IMPRESSION (Team playing and overall artistry of the performer)	Exhibits impressive artistry showing full understanding of theatrical performance, and works with other performers very well	Mostly impressive performance and appropriate team cohesion	Displays reasonable artistic impression and makes minimal effort at team work	Inconsistently expresses self and barely collaborates with other team members	Did not perform	
Total						

UCE 621/2 SCORESHEET FOR PERFORMING ARTS PERFORMANCE EXAMINATIONS 2024

CANDIDATE'S NAME ……

Random Number …… Personal Number……

DANCE PERFORMANCE(AFRICAN/WESTERN/CONTEMPORARY)

TITLE:						
	LEVELS OF ASSESSMENT/SUCCESS CRITERIA					
BASIS OF ASSESSMENT	**Excellent 4 pts**	**Good 3 pts**	**Fair 2 pts**	**Poor 1 pt**	**Didn't Try 0 pts**	Score
DANCE TECHNIQUE	Performs with great attention to movement quality, body posture, footwork, and displays body range possibilities and flexibility	Performs with adequate attention to movement quality, body posture, footwork, and displays body range possibilities and flexibility	Performs with partial attention to movement quality, body posture, footwork, and displays few body range possibilities and flexibility	Performs with minimal attention to movement quality, body posture, footwork, and hardly displays body range possibilities and flexibility	Did not perform	
CHOREOGRAPHY (Formations and use of stage)	Displays clear formations and floor patterns, makes seamless transitions and coordinates effortlessly with the team	Mostly displays clear formations and floor patterns, makes transitions and moves in sync with the team	Displays formations and floor patterns, makes transitions, but moves with uncertainty	Hardly aware of the formations, floor patterns, transitions and is out of sync	Did not perform	
COSTUME, PROPS AND MAKE-UP	Uses neat, creatively designed costumes, props	Mostly uses neat, creatively designed	Partially uses costumes, props and	Uses costumes, props or make-up that are either	Did not perform	

	and make-up to enhance movement and bring out the meaning of the dance	costumes, props and make-up to enhance movement and bring out the meaning of the dance	make-up,pays little attention to neatness and creativity	inappropriate, clumsy, inadequate or ill-fitting		
TEMPO/RHYTHM (Accompaniment)	Responds to the accompaniment with precision throughout the dance	Mostly responds accurately to the accompaniment throughout the dance	Shows hesitation and uncertainty at several points during the dance	Hardly responds to the accompaniment during the dance	Did not perform	
PERFORMANCE SKILLS	Displays great poise, body projection, and facial expression, fully engages the audience	Displays satisfactory poise, body projection, and facial expression, engages the audience	Not fully engaged in the performance, often emotionally and physically detached	Generally, passive during the performance	Did not perform	
ORIGINALITY **(Specific to Contemporary Dance)**	Visibly brings out the theme through a clear and believable storyline	Brings out the theme through a clear and believable storyline to a large extent	The theme and storyline are partially developed	The theme is mostly vague, undeveloped, and the storyline is unclear and unbelievable	Did not perform	
TOTAL						

555/1
PHYSICAL EDUCATION
2024
2 ¼ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICAL EDUCATION

Paper 1
Theory

2 hours 15 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections;* **A** *and* **B**. *It has* **four** *examination items.*

Section **A** *has* **two** *compulsory examination items.*

Answer only **one** *item from Section* **B**.

Answer **three** *examination items in all.*

Any additional item(s) answered will **not** *be scored.*

All *answers* **must** *be written in the Answer booklet(s) provided.*

 Turn Over

SECTION A

Answer **both** *items in this section.*

Item 1

During the interclass volleyball competitions, john a player of S.2 class moved from class which is a few meters from the volleyball court and immediately requested to start playing and he was allowed.

After a few minutes of play, John complained to the umpire of sudden pain at the ankle, and was seen limping off the court.

The play was stopped, the other players observed that there was also swelling at the ankle and John told them that he started playing when he was normal. Everyone had no knowledge on how to help him before referring him to the health centre.

Task:

(a) How is John's conduct responsible for the pain and swelling?

(b) Make a write up that can be used by S.2 students to help John.

Item 2

The district has organized a football championship where sub-counties are to be to be represented. The coach for your team tried out the players through a friendly match to check their preparedness for the competitions. The coach made the following observations;

(a) A number of players easily got tired and requested for substitution more frequently
(b) Many players made passes that failed to reach the identified target
(c) Players easily staggered and at times fell down with even a slight push from the opponents
(d) In most cases, the opponents could reach the ball first whenever long passes were made.
(e) Players eat a lot of food and drink water few minutes before training because they need energy during training.

Based on the observations made, the coach has requested you to give support to the team in the area of physical fitness. There are three weeks left to the start of the competitions.

Task:
Make a detailed write up that can be used to support the football players for two weeks.

SECTION B

Answer only **one** *item from this section.*

Item 3

Samuel is a wheel chair basketballer who desires to become an international basketball player. He lives in one of the refugee camps in Uganda. He shared some of the challenges in the refugee camps as being limited space, inadequate equipment for women and children to participate in physical activities. He added that he was denied an opportunity to use the available courts (playgrounds) because he is both non-Ugandan and disabled.

He further noticed that athletes were using drugs and becoming violent during play.

A local media house has approached you for an article in the newspaper addressing the challenges in the camp.

Task:
As a student of physical education, make a write-up of between 300 and 500 words that can be published in a newspaper addressing the challenges in the camp.

Item 4

Makuru and Pakuru sub counties in Uganda have remained under developed compared to their neighbours. The two areas have problems such as endless fights, quarrels among the residents because of their political, social & religious differences but for the youth, its largely drug abuse. During a radio talk show, the district sports officer said that sports activities can be one of the tools to overcome such problems and further mentioned that media is key in aiding sports for development. However, some officials do not agree with the District sports officer.

Task:
As a physical education student, **make** a write up in support of the district sports officer.

END

555/1
PHYSICAL EDUCATION
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICAL EDUCATION

Paper 1
Theory

New Lower Secondary Curriculum

SCORING GUIDE

SAMPLE RESPONSES

Item 1

(a)

John's failure to observe safety measures before and during play could have been the cause of the injury

John left class and went straight to play the game; without changing the attire, or warming up, or even paying attention to the safety of the play area.

Failure to perform warm up exercise; warmup is the light physical activity (exercise) that gradually increases in intensity, usually undertaken before the main physical activity. It includes muscle movements, joint stretching etc. to condition the body (muscles and other body systems e.g. circulatory system) to prepare for the main activity. For example, warm up would stretch muscles hence would improve muscle flexibility allowing stretching of muscles (bending movements) in the joints hence reducing chances of a sprain or muscle tear. John did not warm up, creating more risk for muscle tears hence injury.

Improper equipment/attire; appropriate attire would ensure safe play for example proper sports clothing allows free (limitless) movement of the body parts. Ordinary clothing may limit movement of the legs or arms thereby increasing chances of injuries from falling or even sprains. Since John moved from class directly to the play area and started playing, it is likely that he did not put on appropriate wear which allow a wide range of movement while playing the game. Hence inappropriate attire could have limited the range of movement thereby increasing risk for accidents like falling or sprains

Improper equipment; like appropriate foot ware (shoes) provide good grip on the ground to avoid falling during play hence reducing on incidents of injuries.

Safe play area; always ensure the play area is safe e.g. free from dangerous objects that may cause injuries e.g. clear the play area of any unwanted material before the start of sports activities this reduces incidents of falls, cuts etc.

(b) Manages the injury and refers John for further management

Dear senior two students.

I write to you a simple guide on the management of injuries specifically, the injury suffered by John.

John's injury could be a sprain or a dislocation. A sprain is an injury resulting from violent twist of a joint with stretching or tearing of ligaments. It is accompanied with swelling, limited range of motion and pain at the joint.

A dislocation is an injury to a joint causing the bones to no longer meet correctly at the joint. Its accompanied by immediate severe pain, swelling, trouble moving the joint, and a deformed appearance at the joint.

In injury management, the steps taken are basically to preserve or save life and this can be achieved if we;

- prevent further injury of the victim (prevent injury from getting worse)
- Stop bleeding if there is any
- Reduce pain and swelling,

Prevent further injury: gently lay John down away from the court. Avoid putting weight on the injured ankle, ensure his airways are open and breathing is without any difficult and try to rest him as much as possible.

Manage pain and swelling : e.g. Apply an ice pack to the injured ankle for 15-20 minutes to reduce swelling and pain

Compression: Use an elastic bandage or brace to provide support and compress the injured ankle to help reduce swelling.

Elevation: Elevate John's injured ankle above heart level to help reduce swelling and promote healing.

Pain relief: Take over-the-counter pain medication, such as ibuprofen, paracetamol/Panadol, to help manage pain.

Refer John for further management, Consult a healthcare provider: If the pain and swelling persist or worsen, or if John has difficulty bearing weight on the injured ankle, consult a healthcare provider for a proper diagnosis and treatment plan.

Item 2

The goal of the program is to achieve power, strength, speed and endurance in the soccer players within 2 weeks.

Warm-up Perform rope skipping or jogging

for 15 minutes. Perform running-skipping and also running in-place ensuring that the rope passes under *one* foot at a time on the ground etc..

Cool-down: after training perform **cross-body shoulder stretch**; stand with your back straight, arms to the sides and the feet shoulder-width apart. Raise your right arm straight in front of you parallel to the floor with the palm facing down. Use your left arm to hold your right arm above the elbow. Gently pull your right arm toward your left side then hold in position for 20 seconds. Switch to the other hand(the left).

Single knee-to-chest stretch: this loosens the back, hip and muscles of the buttocks also eases spinal movement…to perform this, lie flat on the back on your back, keep the legs straight on the floor. Bend your right knee bringing it to your chest as close as you can and hold it for 20 seconds as you keep the left leg straight on the floor. Switch to the left leg.

To achieve speed; *Short sprints-stop and sprint*; sprint for 40 metres and stop, wait until your heart rate normalizes then sprint again for another 40 metres repeat this procedure until a total of 160 metres. Maximum duration 10 minutes

To achieve Strength; Single leg squat

Stand on one foot and keep your other leg off the ground and in front of you. Lower yourself as much as you can and hold that position for 3 seconds and return to standing position then lower yourself again, hold position for 3 seconds. Repeat this movement 5 times then change the supporting foot. Rest.

To achieve power; Squat-jump place the legs shoulder width apart, we squat sharply and then jump, as the feet touch the ground you squat again.

4 sets of 3 squat jumps, 3 sets of 4 squat jumps,

To achieve Endurance Sprints; 45 metres sprints, 4 sets, with 15 seconds rest interval in between sets

Diet : Make sure you are properly fueled before doing your strength training so you are able to perform well in all your squats. An energy depleted body can negatively impact the quality of your training session. I suggest carbohydrates that are easy to digest, such as ripe bananas, and two eggs for protein. Post-Workout Nutrition Eat a balance meal within 2 hours of working out with a focus on quality protein like eggs, lean meat.

On high volume training days, eat carbs and protein more frequently to ensure your body is using nutrients effectively. Be aware of the signs that you are lacking nutrition/calories i.e. rapid weight loss, chronic fatigue, poor performance, lack of enthusiasm to train, decrease in fitness.

Day 1	**Day 2**	**Day 3**	**Day 4**	**Day 5**	**Day 6**	**Day 7**
Rope skipping 15 minutes **Short sprints-stop and sprint** 4 sets of 1 repetition	Rope skipping 15 minutes **Short sprints-stop and sprint** 40 metres 4 sets of 1 repetition	Jogging for 15 minutes **Squat-jump** 4sets 3 repetitions (4 sets, each set with 3 squat jumps)	Rest day	Rope skipping 15 minutes **Single leg squat** 3 sets, 5 repetitions on each foot	Jogging for 15 minutes **Short sprints-stop and sprint** 4 sets of 1 repetition With rest interval to restore heart	Rest

With rest interval to restore heart rate between sets **1-3 minutes rest** **45 metres sprints** 4 sets 1 repetition with 15 seconds rest interval Perform a Single knee-to-chest stretch and cross-body shoulder stretch 4 repetitions for each stretch	With rest interval to restore heart rate between sets **3-5 minutes rest** **Single leg squat** 3 sets, 5 repetitions on each foot Perform a Single knee-to-chest stretch and cross-body shoulder stretch 4 repetitions for each stretch	**1-3 minutes rest** **45 metres sprints** 4 sets 1 repetition with 15 seconds rest interval Perform Single knee-to-chest stretch and Perform cross-body shoulder stretch 4 repetitions for each stretch		**1-3 minutes rest** **45 metres sprints** 4 sets 1 repetition with 15 seconds rest interval Perform a Single knee-to-chest stretch and cross-body shoulder stretch 4 repetitions for each stretch	rate between sets **3-5 minutes rest** **Squat-jump 4sets 3 repetitions (4 sets, each set with 3 squat jumps)** Perform a Single knee-to-chest stretch and cross-body shoulder stretch 4 repetitions for each stretch	

Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
(a) Rope skipping 15 minutes **(b) Squat-jump 3 sets 5 repetitions** **(c) 1-3 minutes rest** **(d) 45 metres sprints** 4 sets 1 repetition with 15 seconds rest interval Perform a Single knee-to-chest stretch and	(a) Rope skipping 15 minutes **(b) Short sprints-stop and sprint** **(c) 3-5 minutes rest** **(d) Single leg squat** 3 sets, 5 repetitions on each foot Perform a Single knee-to-chest stretch and	(a) Jogging for 15 minutes **(b)Squat-jump 3 sets 5 repetitions** **(c)1-3 minutes rest** **(d) 45 metres sprints** 4 sets 1 repetition with 15 seconds rest interval Perform a Single knee-to-	Rest	(a)Rope skipping 15 minutes **(b)Single leg squat** 3 sets, 7 repetitions on each foot **(c)**1-3 minutes rest **(d) 45 metres sprints** 4 sets 1 repetition with 15 seconds rest interval between sets Perform a Single knee-	(a)jogging 15 minutes **(b)Short sprints-stop and sprint** **(c)** 3-5minutes rest **(d) Single leg squat** 3 sets, 5 repetitions on each foot Perform a Single knee-to-chest stretch and	Rest

cross-body shoulder stretch 4 repetitions for each stretch	cross-body shoulder stretch 4 repetitions for each stretch	chest stretch and cross-body shoulder stretch 4 repetitions for each stretch		to-chest stretch and cross-body shoulder stretch 4 repetitions for each stretch	cross-body shoulder stretch 4 repetitions for each stretch	

SECTION B

Item 3

Championing Participation in Sports: Overcoming Challenges in Our Refugee Camps *By Sofia Malema,*

Refugee Camps stand as a beacon of hope for those displaced by conflict, persecution, and hardship. However, like any community, they face a share of challenges. Here we propose how refugee camps can utilise the power of sports to overcome these challenges and foster resilience among its inhabitants.

1. Limited Space for Sports: Thinking Creatively. The camp's limited space poses a significant barrier for organizing sports activities. Crowded living conditions and scarce open areas make it challenging to engage in physical exercise.

   Solution:

   - ***Multi-Use Spaces***: make use of existing areas for sports. Consider using courtyards, or even sections of communal kitchens during off-peak hours.
   - ***Community Gardens***: Combine gardening with exercise. Tending to small plots while stretching and moving can be both healing and yet practical gardening.

2. Non-Inclusive Sports Activities: Bridging Divides. Sports should unite, not divide. Yet, some activities inadvertently exclude certain groups due to cultural norms or gender biases. Ensure that sports activities and facilities are for all.

Solution:

- **Diverse Sports**: Offer a variety of sports to cater to different interests. Football, netball, yoga, and traditional games can coexist so that all members of the refugee camp and surrounding communities have access and actually participate in at least one sports activity.
- **Mixed Teams**: Encourage mixed-gender and mixed-nationality teams. Emphasize cooperation and mutual respect, this will eventually promote peaceful coexistence and reduce on discrimination.
- **Cultural Sensitivity**: Understand cultural preferences and taboos. Adapt sports programs accordingly to reduce on conflicts and promote tolerance hence peace.

3. Limited Sports Equipment: Making the Most of What We Have. Scarcity of sports equipment restricts opportunities for play and skill development**.**

   Solution:

   - **Improvise**: Use everyday items as makeshift equipment. Plastic bottles become cones, and old clothes transform into goalposts, old polythene bags together with clothes can be used to make improvised balls.
   - **Community Donations**: Reach out to local businesses, and well-wishers for donations. Even a few soccer balls can ignite passion.
   - **Skill-Based Training**: Focus on skill development rather than equipment. Agility, teamwork, and resilience require no special gear hence one can get physically fit without use of any special sports gear through exercises like runs, stretches etc.

4. Addressing Youth Drug Abuse: A Holistic Approach. Vulnerable youth often turn to substance abuse as an escape from trauma and boredom**.**

   Solution:

- **Sports as a Diversion**: Engage youth in sports to channel their energy positively. A soccer match can replace idle hours.
- **Education**: Raise awareness about the dangers of drug abuse. Involve peer educators who can relate to their struggles. The peer educators can come in during sports activities such as during mini-leagues to talk to the community members just after the games when they are waiting for trophies.

Remember, in the heart of a refugee camp, where resilience blooms, sports can be the bridge that connects hope to reality. Let us build a stronger, healthier community—one goal, one game, and one step at a time.

Item 4

Engaging in sports activities are beneficial at both for personal and community level. These benefits include the following;

- Participating in physical activities provides opportunities for social interaction and connection with others, fostering a sense of community and belonging. It can help individuals develop friendships, teamwork skills, and communication abilities hence reduce on the incidents of infighting.
- Exercise provides a healthy outlet for managing emotions and coping with life's challenges. It can help individuals develop resilience and adaptive coping strategies, enabling them to better navigate stress and adversity hence fostering peace in communities.
- Maintaining overall physical health. It helps to strengthen muscles and bones, improve cardiovascular health, and reduce the risk of chronic diseases such as heart disease, diabetes, and obesity the health body can then be used in economic activities like farming to raise the economic status of the community members.
- Use the media to promote community Events**:** by organizing community events such as sports tournaments, health fairs, and awareness campaigns to engage directly with community members and promote our advocacy cause. These events provide opportunities for hands-on participation, networking, and community building, allowing us to connect with individuals of all ages and backgrounds and pass on information regarding peaceful coexistence in a society. Such events can be walking football for the elderly where there is no running.
- Engaging in regular exercise can enhance overall quality of life by improving sleep quality, increasing energy levels, and boosting self-esteem and confidence. It enables individuals to lead active and independent lives, maintaining their mobility and functional abilities as they age.
- Individuals who engage in regular physical activity tend to live longer and have a lower risk of premature death. Exercise contributes to healthy aging by reducing the risk of age-related diseases and promoting longevity. This cut down the costs of treating diseases hence creating avenues for saving money to improve on livelihood of community members

555/2 Inst. Sch.
PHYSICAL EDUCATION
Practical Instructions
2024

UGANDA NATIONAL EXAMINATIONS BOARD

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PHYSICAL EDUCATION PRACTICAL INSTRUCTIONS

555/2 Inst. Sch.

2024

CONFIDENTIAL

This information is given only to facilitate preparation of examination.

Great care should be taken that the information given below does not reach the candidates whether directly or indirectly.

The teacher responsible for preparation **must** ensure that candidates are provided with sports equipment and other materials for good performance and safety.

 Turn Over

1. Games: Mini Game Situation
(Volleyball)

Prepare play area and equipment for a mini game of 5 players per side. Each candidate will be assessed in one mini-game only.
Note: A candidate choses only one game to play.

2. Games: Game Situation
(Cricket/ Basketball/ Badminton/ Rugby/ Hockey/ Table tennis)

Prepare play area and equipment for demonstration of skills in any game in the list. Each candidate will be assessed in one game only.
Note: A candidate competes in only one game.

3. Gymnastics

Prepare a play area and equipment for performing gymnastics.

4. Athletics
(Running Jumping and Throws)

Prepare play area and equipment for:

- Jumping: Long Jump and High Jump.
- Throws: Javelin and Shot-put.

5. Aerobics/Swimming

(a) Prepare a play area and equipment for conducting an aerobic session for at least 6 persons.

(b) Prepare a play area and equipment for demonstrating water skills e.g. swimming.

Note: A learner choses either swimming or aerobics

END

555/2
PHYSICAL EDUCATION
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

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PHYSICAL EDUCATION

Paper 2
Performance

INSTRUCTIONS TO CANDIDATES:

This paper consists of **three** *sections;* **A**, **B** *and* **C**. *It has* **six** *examination items.*

Section **A** *has* **one** *compulsory examination item.*

Perform **two** *games from section* **B**.

Section ***C*** *has two Parts;* **I** *and* **II**. *Part* **I** *is compulsory. Answer only* **one** *item from part* **II.**

Answer **five** *examination items in all.*

 Turn Over

SECTION A (ATHLETICS)

(Compulsory)

Item 1

Your headteacher has organized an athletics event to select competent students to help introduce athletics skills to the new students in the school. All athletes will be required to exhibit skills in one event in each skill set as indicated in the skills sets of;

(a**)** SKILL SET 1: **Jumping**: *either* Long Jump *or* high Jump

(b) SKILL SET 2**: Throws**: *either* Javelin *or* Shotput.

You have been selected to compete with fellow students in this event.
Personnel have been tasked to assess your performance.

Task

Perform the skills in the skill sets 1 and 2 above competitively following rules of play.

SECTION B (GAMES)

Answer **both** *items: perform item* **2** *and* **one** *game from item* **3**.

Item 2

Your class is preparing for the prestigious annual class competitions at your school. You are required to use the acquired skills in volleyball and use them in a mini-game situation. The game should be **five** players against **five**.

Task:

Play the game competitively following safety precautions and demonstrating sportsmanship.

Item 3

The national sports federation of the game of your choice wishes to start a grass root development of the game starting with schools. They have organized a motivational match to individuals who would wish to join the game. You have been identified as one of the players in the team to play in that match.

Task:

Select **one** game from the table **1** below and play competitively using indicated skills plus other skills of the game in a game situation.

Table 1

	GAME					
	Cricket	**Basketball**	**Badminton**	**Rugby**	**Hockey**	**Table tennis**
SKILL	Batting	dribbling	Smash shot	Ruck	Dribbling	Spin
	Bowling	Shooting	Clear shot (overhead, forehand)	Scrum	Shooting (drive shot)	Smash
	Fielding	Rebounding	Serve	maul	Goal keeping	Serve

SECTION C (AESTHETICS)

This section consists of **two** *parts;* **I** *and* **II**.

PART I : *Gymnastics*
(**compulsory**)

Item 4

You have acquired some gymnastic skills and your Physical Education teacher intends to involve the whole school in gymnastics. You are required to use **at least one** skill from each of the **gymnastic skill** categories to display an artistic performance by combining skills

The gymnastic skills,

(a) Category 1: **Body shapes**; - hollow, lunge, bridge, straight stand.
(b) Category 2: **Balances**; -swan balance, V-balance, crouch balance.
(c) Category 3: **Rolls**; -backward roll, side roll, judo roll.
(d) Category 4: **Skipping**; -double leg, single leg.

Task:

Plan an artistic performance, and in **3-5** minutes, display the artistic performance to the whole school in order to encourage other learners to join gymnastics.

(*Your performance should include any skills you have learnt but also include* **at least one** *skill from each of the four categories.*)

PART II : (*Swimming & Aerobics*)
Answer only **one** *item in this part.*

Item 5

Most formal workers in Uganda spend most of their time working on computers. One of the organizations started aerobics sessions twice a week. The workers are familiar with the few moves they have been performing and it has become boring. Others have gone ahead to read about dance movements in aerobics like; shoulder punches, triceps kickbacks, Y-steps, heel-taps, A-step, arm circles, matching wide, v-step, diagonal, hop turn, basic right, basic left; but do not know how to perform them.

The manager of the organization has requested you to head the workers' team in the identified steps.

Task:

Plan and perform a **15**-minutes aerobics dance session that will be used to fully address the needs of the workers in the organization.

Item 6

A nearby primary school has constructed a swimming pool. The school needs someone who can perform the swimming skills before the learners. Your PE teacher has chosen you to go and perform a given set of skills; mushroom float, frontal float, back float and frontal glide as you swim any stroke of your choice.

Task:

Dive and perform the following strokes for 100 m in **not** more than **3** minutes:

(i) front crawl
(ii) breast stroke

535/1
PHYSICS
Paper 1
2024
2½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICS

Paper 1
Theory

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *sections*; **A** *and* **B** *It has* **seven** *examination items*..

Section **A** *has* **three** *compulsory items.*

Section **B** *has* **two** *parts;* **I** *and* **II**. *Answer* **one** *item from* **each** *part.*

Answer **five** *items in all.*

Any additional item(s) answered will not be scored.

All answers **must** *be written in the booklets provided*.

SECTION A

Answer **all** *the items from this section*

Item 1.

A brass band was invited to play during a celebration near a tall building, a distance slightly more than 17 m away. Two friends standing in the same direction and in line with the playing band, heard the sound from the band at different intervals of time which attracted them to go and attend the celebration. On arrival, the sound they heard was unclear, confused and indistinct. Later in the night during the cerebration, coloured lights flashing red, blue and green made the colours of their clothes look different from the original colours which puzzled them.

Hint: *Speed of sound in air = 330 ms^{-1}.*

The two friends heard sound after 4 s *and* 5 s*, respectively.*
The friends were originally wearing yellow clothes.

Task:

As a physics student, help the two friends to understand why;

(a) they heard the sound at different intervals.

(b) the sound they heard was unclear, confused and indistinct.

(c) the colour of their clothes kept changing when coloured lights flashed on them.

Item 2.

In a certain town, people are concerned about the waste disposal from the factory into the nearby lake which is their source of water for home use. They raised this issue to the chairperson Local Council 1 (LC1) who directed the management of the factory to stop disposing waste into the lake. A scientist was contacted to investigate the presence of radioactive material in the water. The scientist found out that the water was indeed radioactive as shown in Table **1**.

Table 1

Time/days	0	5	10	15	20	25	30
Activity/counts per minute	1200	740	440	260	160	90	60

Although the water from the lake remains radioactive for a long time, the scientist recommended that water will be safe for use again when the activity is less than 38 counts per minutes.

Task:

As a student of physics;

(a) Advise the chairperson LC1 about the time the community will wait for the water to be safe for use again.

(b) Sensitise the members of the community about the risks associated with radioactive materials and how such materials should be handled.

Item 3.
In a certain country, a Television (TV) reporter was reporting live near the ocean about the high tides during night time. Viewers in another country were watching the live broadcast of the news bulletin during day time. The viewers wondered how it could be day and night at the same time, and how the event in one country could be watched live on TV in another country.

Task
Using your knowledge of physics to help the viewers to understand;

(a) the possibility of it being day in one place and night in another place.

(b) the occurrence of high ocean tides.

(c) how an event in one place can be broadcast live in another country.

SECTION B

PART 1

Answer **one** *item from this part*

Item 4.
A certain home owner intends to put up a metallic tank of height 4 m with a maximum volume of 5000 *l* fitted with an electrical heater which supplies 20,000 kJ of heat energy as shown in figure 1.

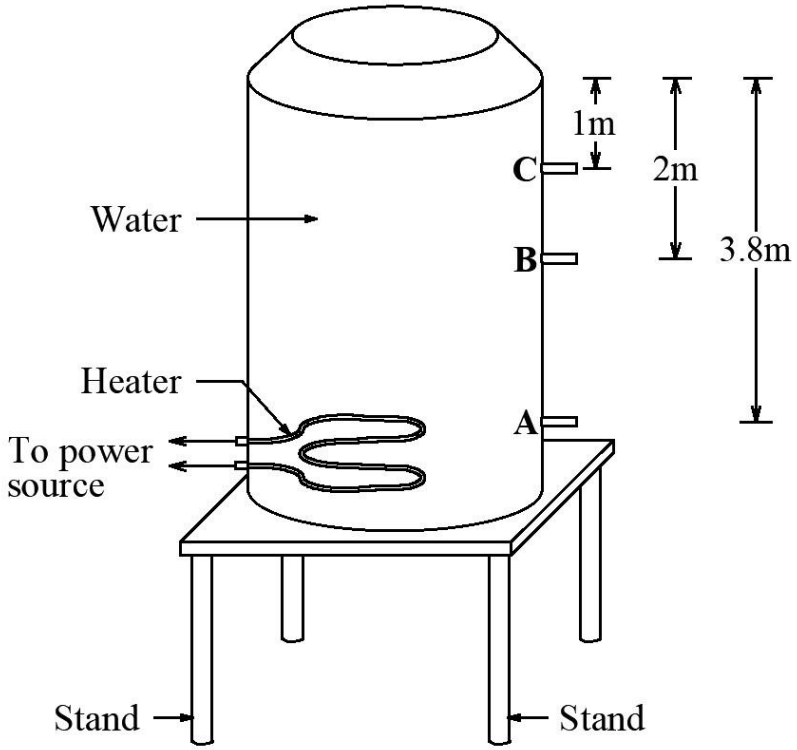


Fig. 1

The home owner found out that the heater was fitted at the lower part of the tank but he did not understand why it was done like that. Just before the hole for the outlet pipe was drilled at point **A**, the home owner told the person with the drill that the correct position was either **B** or **C**.

Task:
As a learner of Physics;

(a) Explain to the home owner why;

(i) the electrical heater was fitted at the lower part of the tank and how eventually all the water gets hot.

(ii) the outlet pipe was drilled at point **A**.

(b) If the initial temperature of the water in the tank is 20 ^{o}C, help the home owner to find out if the heater is working.

(c) Advise the home owner on measures that can be taken to ensure that the tank stand can withstand the weight of the tank and water for a long time.

Use:

Density of water = 1000 kgm^{-3}.
Specific heat capacity of water = 4200 J kg^{-1} K^{-1}.
Acceleration due to gravity = 10 ms^{-2}

Item 5

A certain hotel has its bathrooms situated on the 3rd floor of a building. A customer of the hotel expects to bathe water at 32 ^{o}C. The hotel provides 10 litres of water at 20 ^{o}C to each customer. A boiler on ground floor heats water to 80 ^{o}C for the customers to use. The hotel management does not allow its workers to carry the hot water via the staircase.

Task:
Having studied physics;

(a) help the hotel management to determine the quantity of hot water to be given to a customer for bathing.
(b) advise the hotel management on how to keep the boiled water hot for a long period of time without keeping the boiler on.
(c) explain to the management how the water from the boiler can reach the third floor safely.

Use:
Density of water = 1000 kgm^{-3}.
Specific heat capacity of water = 4200 J kg^{-1} K^{-1}.
Acceleration due to gravity = 10 ms^{-2}

PART II

Answer **one** *item from this part.*

Item 6.

Small pieces of metal which are unsafe to be eaten by chicken were found in feeds that had just been bought from a milling company by a poultry farmer. The small pieces of metal were later identified as iron. The farmer thought of disposing off the feeds but remembered that the pieces of metals could be sorted with a magnet which he did not have.

Hint:

A nail, connecting wires of resistance 0.5 Ω, two dry cells each of 1.5 V were available to the farmer.

Task:

As a student of physics;

(a) Help the farmer to remove the pieces of iron from the feeds.

(b) Comment on the effectiveness of what you have designed, given that current of 4 A is enough to create a strong magnet.

Item 7.

In a certain place, electricity is transmitted at 120 V. A business person intends to connect 4 bulbs in a house rated 240 V, 60 W each, and other domestic electrical appliances such that there is minimum power wastage. The business person has been advised to purchase a transformer of suitable specifications to achieve the objectives. The business person does not know what a transformer is, how it works and is bothered by the type of transformer that should be purchased.

Task:

As a student of physics, help the business person to solve the problems he/she is faced with.

END

535/1
PHYSICS
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICS
Theory

Paper 1

New Lower Secondary Curriculum

SCORING GUIDE

 Turn Over

535/1 - PHYSICS SAMPLE PAPER SCORING GUIDE

SECTION A

1. (a) First 4s and 2nd 5s.

First Distance = speed × time.

= 330 × 4 =1320m.

2 nd Distance = 330 × 5 = 1650 m.

They heard sound at different time intervals because they were standing at different distances away from the playing band.

(b) Unclear, confused, indistinct sound:

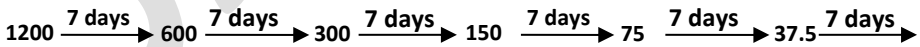
– Reverberation.
– Echoes.
– Noise from the environment.

(c) Colour changes of the clothes are due to appearance of coloured objects in coloured light.

– Due to colour mixing.
- In red, appeared red.
- In green, appeared green.
- In blue, appeared black.

2. From the graph, the water will be safe for use after 38 days. (32–38 days). If no more waste was allowed in the lake.

OR: Using half-life = 7 days.



– A number of small doses received over time radioactive materials build up cumulatively in the body system and may **lead to leukaemia or cancer**.

– Strong doses of radiations from radioactive materials will lead to **burning of the skin and body tissues**.

– Extreme radiation penetration will lead to **damage deep in the body tissues** and particularly **to the body nuclei**.

– This may affect **chromosomes** and **make cells abnormal** and the **genetic effects** arising may be passed onto future generations.

– Radioisotopes are handled by mechanical tongs operated by **remote control equipment** from behind this **wall made of lead, concrete** or other suitable material that **absorb the dangerous radiations e.g. radiation badges**.

– **Thick-walled lead containers** are used.

– **A decay curve ploted with:**

- Axes labelled,
- Shape (with correct plotting),
- Reading the corresponding number of days (35 days).

3. (a) The possibility of day in one place and night in another. This is caused by the rotation of the earth about its axis (spinning). A point directly taking the sun will experience day while the one on the other side of the earth will be experiencing darkness (night).
As the earth rotates, the point ceases to be directly under the sun hence becoming dark. At this time, the other side of the earth will be experiencing day time.

(b) Occurrence of the high ocean tides.
High tides are caused by the **moon's gravitational pull**. The **tidal forces** cause the earth and its water **to bulge out** on the side **closest** to the moon and the side **furthest** from the moon. These bulges are the high tides.

(c) • **Images are picked by cameras** and changed to a frequency (signals) suitable for satellite transmission.

• The signals are transmitted from a ground based satelllite dish (station transmitter) to a satellite in a geo-stationary orbit.

• The signals are then amplified/modulated another frequency to satellite dishes on the earth's surface at TV stations.

• The received signals are decoded by a decoder and then sent to the television for display.

SECTION B:
Part I

4. (a) (i) Heater fixed at the bottom so that water in the tank is warmed faster.
Heat transfer in liquids is by convection.
Convection currents from the heater take place upwards.

Water near the heater warms up first, expands, becomes less dense and rises. Dense cold water near the top of the tank sinks to the bottom of the tank where it is also heated.
Convection currents are set up and continue until all the water is heated, warmed up.

(ii) At point A water comes out at a high pressure.
Pressure increases with depth.
($P = \rho g \times h$).
Accept calculation method to arrive at the conclusion.

(b) Heater is working if there is a temperature increase.
Heat Quantity = $mc\theta$.
Heat supplied = Heat gained. Formula
$20{,}000 \times 10^3 = 5000 \times 4200\ (\theta - 20)$.
$\theta = 20.95\ ^{o}C$.
Since temperature increased to $20.95\ ^{o}C$, then heater is working.

(c) Using: more struts / ties / girders.
Metallic stand put up in concrete slab.

5. (a) Heat lost by hot water = Heat gained by cold water.
$M_h \times 4200\ (80 - 32) = 10 \times 4200\ (32 - 20)$.
$M_h = 2.5$ kg. or 2.5 litres.

Each customer will need 2.5kg or 2.5 litres of hot water to mix with the cold water to achieve bathing water temperature.

(b) Using vacuum flasks, Process – lagging by insulating materials.

[Hot water tied at one end of the inextensible string that passes over a pulley. Effort is applied at the other end at the 3rd floor. In this way the bucket of hot water will be …..
Identify a method + Explanation.]
Heat loss, by conduction
– Minimised by enclosure in insulating materials.
– Keeping water in poor water conducting materials, for example by using vacuum flasks.

Heat loss, by convection
– By covering the container with an insulating cover.
– Filling up the container with hot water.

(c) Pulley system - for example lifts.
Wheel and axle.
Pumping.
Hot water supply system.

Part II

6. (a) An electrical method for making …..

– A magnet is required.
– A circuit diagram.
– Description:-
- current flowing,
- Polarity,
- Dipoles,

The current flowing creates a magnetic field which aligns the nail dipoles in the same direction making the nail magnetised

The magnetised nail is then moved on top of the feeds continuously to pick all the pieces of iron by attracting them away from the mixture (feeds and metals) .

(b) $V = IR$

$3 = I \times 0.5$

$I = \frac{3}{0.5} = 6\text{A}.$

Since $\mathbf{I}$ *proportional to* β.

And $6\text{A} > 4\text{A}$, then the magnet formed will be highly effective.

7. A transformer is a device that steps up (increases) or steps down (reduces) the input voltage (e.m.f.).
A device the changes voltage.

A diagram of the transformer with two labels (Secondary source and a Primary source. (a score)

If an alternating current is passed through the Primary coil, an alternating magnetic flux will be set up and will induce an alternating e.m.f. in the Secondary coil.

The magnitude of this induced e.m.f. will depend on the e.m.f. applied to the primary and on the relative numbers of turns in the two coils.

– A step up transformer is required.

– Because the voltage must be increased from 120V to 240V for this bulb and appliances to work, $\frac{N_p}{N_S} = \frac{V_p}{V_S}$.

– $\frac{N_p}{N_S} = \frac{120}{240}$,

– $N_S = 2N_p$.

– A step up transformer of number of turns on Secondary twice as that on the Primary will change 120V to 240V.

– The bulbs and other appliances will be connected in parallel from so that they operate at the same voltage, and a fault in one does not affect the working of the other.

535/2&3
PHYSICS
Paper 2&3
2024
2 hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICS

Paper 2 & 3
Practical

2 hours

INSTRUCTIONS TO CANDIDATES:

This paper consists of two examination items.

Answer **one** *item in all.*

Any additional items answered will ***not*** *be scored.*

Candidates are **not** *allowed to start working with the apparatus for the* **first quarter of an hour**. *This time is to enable candidates; read the items thoroughly, checking for the apparatus they will need and plan appropriately.*

A graph paper will be provided.

Mathematical tables and silent non-programmable calculators may be used.

 Turn Over

Item 1

In a certain trading centre, empty mineral water bottles were littered everywhere causing blockage of trenches and other environmental hazards. A trader came to the trading centre with the intention of buying empty water bottles of mass 15 g each. A student had gathered a pile of 20000 empty identical mineral water bottles (500 ml each) but was not sure about the mass of each bottle. There was no instrument to determine the mass of the bottles and the student did not know the amount of money to be earned from the sale of the bottles.

Task:

As a student of physics, carry out a scientific investigation to help the student determine the mass of an identical empty bottle provided to you in order to ascertain how much the student will earn.

Hint:

✓ The trader pays UGX.400 per kilogram of such bottles.

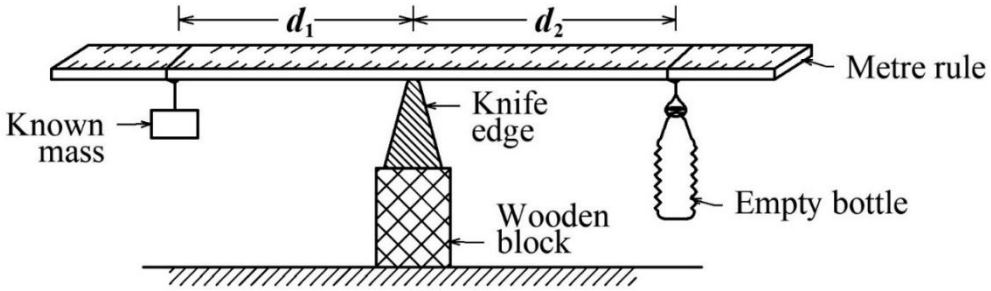


Fig. 1

✓ Other experimental set ups may be used.

Item 2

A student complained about pain in the eyes and could not see nearby objects clearly. After visiting a hospital, a doctor recommended that the student uses spectacles with a lens of focal length 10 cm. The student visited an eyeglass shop, presented the doctor's prescription/report and bought spectacles. The student, however felt uncomfortable while using the spectacles and the problem persisted.

Task:

You are provided with lens, **X** that has same properties with that of the lens in the spectacles a student bought. Verify the accuracy of the lens in the spectacles the student bought.

Hint:

✓

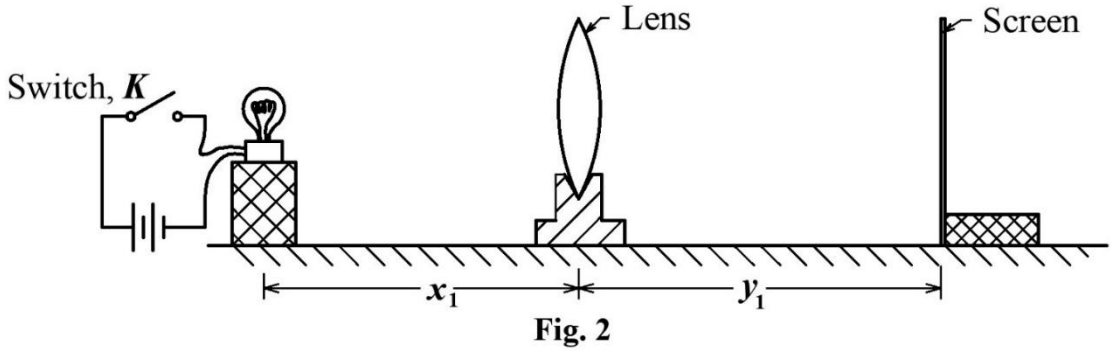


Fig. 2

✓ Other experimental set ups may be used.

END

535/2
PHYSICS
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICS

Paper 2
Practical

New Lower Secondary Curriculum

SCORING GUIDE

 Turn Over

535/2 - PHYSICS SAMPLE PAPER SCORING GUIDE

EXPECTED RESPONSES:

1. **Aim:** To determine the mass of the empty bottle provided in order to ascertain how much the student will earn.

2. **Variable:**

Distances from the pivot to the masses.
(Independent Vs dependent).
Controlled variables(**depends on the type of the Expt**).

3. **Hypothesis:**

The mass of the bottle provided is not between (10 – 20) g or is between (10 – 20) g.

4. **List of Apparatus:**

- Expected list.
- Wooden block / Retort stand.
- Knife Edge / Clamp.
- Metre rule.
- 2 pieces of thread /3 pieces of thread.
- Known mass.
- Empty bottle

5. The metre rule is balanced on a knife edge and the point of balance noted and recorded, ***G***.
A known mass is hung/suspended from one end of the metre rule at a known distance ***x*** from the ***G***.
The bottle whose mass is required is suspended from the other end of the metre rule and its position from ***G*** is adjusted until the metre rule balances again at ***x***.
The distance ***y*** of the bottle from ***G*** is recorded.
The experiment is repeated for atleast 2 more values of ***x*** to obtain corresponding values of ***y***.

6. **Possible sources of errors:**

- Parallax errors.
- Working surface not smooth/flat /rough enough.
- Air resistance / wind.

7. Precautionary measures:

Correct use of instrument to avoid parallax errors.
Ensuring that working surface is flat enough.
Ensuring that the experiment is done in a conducive environment/ controlled to minimise air resistance/ wind interference.

8. Presentation of Data:

Table
Line graph/bar graph

- axes labelled with quantities and units,
- suitable scales,
- plots occupying at least half the graph paper
- correct plots
- well-judged line of best fit.

Or Pie chart(*depending on the experiment*)

9. Accuracy of data:

Appropriate number of decimal places/Standard form.

10. Data Analysis and Interpretation:

(i) Plotting graph of x versus y.

Slope, $S = \frac{M_b}{M}$, $M_b = SM$,

$Mx = M_b y$.

x versus y, Slope = $\frac{M_b}{M}$.

$M_b = M \times$ slope.

(ii) Using Averages; (Average of x) M = (Average of y) M_b

M_b can be obtained.

12. Advice given:

($M_b \times 400$ = Amount)

The student will have …..…kg of bottles and will earn …...amount of money.

END

535/2&3 Inst. Sch.
PHYSICS
PRACTICAL
INSTRUCTIONS
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICS PRACTICAL INSTRUCTIONS

535/2 &3 Inst. Sch.

CONFIDENTIAL

Great care should be taken that the information given below does not reach the candidates either directly or indirectly.

INSTRUCTIONS FOR PREPARING APPARATUS

The candidates will be allowed to write out a detailed description of the apparatus. The teacher responsible for preparing the apparatus must give details (on the report form attached) about some of the items or apparatus he /she has supplied. The form should be signed by the invigilator, teacher responsible for preparing the apparatus and the Head teacher.

NB: The Head teacher **must** ensure that the teacher responsible for preparing the apparatus hands in his/ her trial results, properly sealed in a separate envelope and **firmly** fastened (attached) to the candidates' scripts envelope(s).

 Turn Over

In addition to the apparatus ordinarily contained in a Physics Laboratory, each candidate will require;

Item 1

1 metre rule.

1 piece of knitting thread 110 cm long.

1 100 g mass.

1 knife edge.

1 a block or wooden block (20 cm × 10 cm × 5 cm).

1 empty mineral water bottle capacity 500 ml.

Item 2

1 a convex lens in a holder (focal length 10 cm).

1 a torch (2.5 V, 0.3 A) in a holder.

2 fresh dry cells of emf 1.5 V each of size D in a holder.

1 switch labelled K.

1 white screen.

4 pieces of connecting wires (about 50 cm long).

1 metre rule (half metre rule can do).

This form MUST be completed and returned in a separate envelope firmly attached to the scripts envelope

UGANDA CERTIFICATE OF EDUCATION

2024

REPORT ON PHYSICS PRACTICAL 535 /2&3

Section I:

Any information which the teacher responsible for preparing the apparatus thinks may be useful to the scorers should be given on this sheet. The teacher must try all the scenario items and submit his/her results in the space provided below.

N.B: Teachers who DO NOT submit their trial results will be held responsible for the candidates' performance.

Results:

_____

_____

_____

_____

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_____

_____

Section II:

The invigilator, in consultation with the teacher responsible for preparing the apparatus, should give details below of any difficulties experienced by particular candidates, giving their names and personal numbers. These should include reference to :

(a) difficulties due to faulty apparatus,

_____

_____

_____

(b) accidents to apparatus or materials,

_____

_____

_____

(c) physical handicaps of candidates

_____

_____

_____

(d) Any other information.

_____

_____

_____

Other cases of hardship e.g. illness, disability, should be reported directly to UNEB in the normal way.

A plan of work benches, giving details by personal numbers of the places occupied by the candidates for each shift, must be enclosed with the scripts.

DO NOT STAMP ANYWHERE ON THIS DOCUMENT.

Invigilator's Name_____Signature_____

Signature of the teacher responsible for preparing the apparatus_____

Signature of the head teacher _____

Random Number _____

END

745/1
TECHNOLOGY
& DESIGN
Paper 1
2024
1½ hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

TECHNOLOGY AND DESIGN

Paper 1
Theory

1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *compulsory examination items.*

All *answers* **must** *be written in the answer booklet(s) provided.*

 Turn Over

Item 1.

The Librarian reported in the general staff meeting that part of the roof of the library was leaking. He added that a powdery substance is also seen falling from the fractured part of the timber roof members. In response, the teacher of Technology and Design suggested that his learners have the capacity to repair the roof. The head teacher welcomed the idea but needed proof that the learners can do the work.

Task:
As one of the students, make a detailed write up to convince the head teacher that you can do the work.

Item 2.

Hydroelectric power has become unreliable due to high demand while use of firewood and charcoal has led to environmental degradation. Basing on this, the government has started a campaign to sensitize citizens on other forms of energy that can be generated from locally available resources.

According to your LC1 chairperson, this campaign intends to show citizens that these forms of energy are installable and he would like someone to enlighten the village members on this matter.

Task:

You have been selected by your LC1 chairperson to write a presentation to enlighten the members.

END

745/1
TECHNOLOGY
& DESIGN
Paper 1
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

TECHNOLOGY AND DESIGN

Paper 1
Theory

SCORING GUIDE

S/N	ELEMENT OF CONSTRUCT	BASES OF ASSESSMENT	SUCCESS CRITERIA	
			DESCRIPTION	SCORE
1.	Understand materials, tools and machines plus health and safety practices associated with them	Provides a focused introduction	• Provides a relevant introduction identifying the problem to be solved ▪ *Leaking roof* ▪ *Fractured structural member* ▪ *Attack from insects*	Identifying ▪ 2-3 problems - 2 scores ▪ 1 problem - 1 score ▪ No problem/No response - 0 score
		Tools mentioned	In the explanation, mentions tools to be used e.g. • *Hammer* • *Saw* • *Paint brush* • *Tape measure* • *Pincers* • *Ladder/scaffoldings*	Mentioning: • 3 and above tools - 2 scores • 1 -2 tools – 1 score • no mention – 0 score
		Materials mentioned	In the explanation, mentions materials to be used e.g. • *Structural members(Timber/Steel)* • *Fasteners (Nails/Bolts/Brackets/Hoop iron)* • *Roof cover* • *Preservatives*	• 3 and above Materials- 2 scores • 1 -2 materials – 1 score • no mention – 0 score

S/N	ELEMENT OF CONSTRUCT	BASES OF ASSESSMENT	SUCCESS CRITERIA	
			DESCRIPTION	**SCORE**
		Procedures	Exhaustive procedure description 1. *Getting ready with PPE and securing the area of work.* 2. *Explaining how to remove roof covering material.* 3. *Explaining how to remove affected structural roof members* 4. *Replacing the affected structural roof members.* 5. *Applying preservatives* 6. *Replacing the roof covering material.*	• 4 above procedures - 3 scores • 2 -3 procedures – 2 score • 1 procedure – 1 score • No procedure described/ no mention - 0 score
		Conclusion	Convincing conclusion related to the scenario No conclusion	1 score 0 score
2	Understand energy, electricity and electronics.	Provides a focused introduction	• Provides a relevant introduction identifying the problem to be solved ▪ *HEP is unreliable* ▪ *Environmental degradation* • Irrelevant introduction/ No introduction	• 1 – 2 problems – 1 score • No identification - 0 score

<table>
<tr><th>S/N</th><th>ELEMENT OF CONSTRUCT</th><th>BASES OF ASSESSMENT</th><th colspan="2">SUCCESS CRITERIA</th></tr>
<tr><th></th><th></th><th></th><th>DESCRIPTION</th><th>SCORE</th></tr>
<tr><td></td><td></td><td>Source and Forms of energy</td><td>In the explanation, mention sources and forms of energy
• Sun - Solar energy
• Heat - Thermal energy
• Wind - Wind energy
• Waste - Biogas</td><td>2 and above – 2 scores
1 mention – 1 score
No mention – 0 score</td></tr>
<tr><td></td><td></td><td>Description</td><td>Exhaustive description of any 2 forms of energy systems, components and their functions.<table><tr><td>Energy system description
e.g. solar

1 score</td><td>Components of the system(Max 3)
1 score
1 score
1 score</td><td>Function of each component
1 score
1 score
1 score</td></tr></table></td><td>For each energy system:
(5 – 7) - 3 scores
(3 - 4) - 2 scores
(1 – 2) – 1 score
No mention – 0 score</td></tr>
<tr><td></td><td></td><td>Conclusion</td><td>▪ Relating 2 forms of energy systems to the above scenario
▪ Relating 1 form of energy system to the scenario
▪ No relating at all</td><td>2 scores
1 score
0 score</td></tr>
</table>

745/2
TECHNOLOGY
& DESIGN
Paper 2
2023
3 hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

TECHNOLOGY AND DESIGN

Paper 2
Design and Drawing

3 hours

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** *compulsory examination items.*

Use a sheet of drawing paper size **A2** *provided for your answer*

Use both sides of the drawing paper if necessary.

 Turn Over

Item 1.

Nsako grinding mill broke down and a quick check revealed that **A SHAFT SUPPORT** was damaged and needed replacement. The Manager ordered for its replacement but the manufacturers of the mill only sent him the drawings in figure **1**. The Manager was advised to use a local fabricator to recreate the shaft support. The fabricator available cannot interpret the drawings, however if provided with optional drawings he can use it effectively.

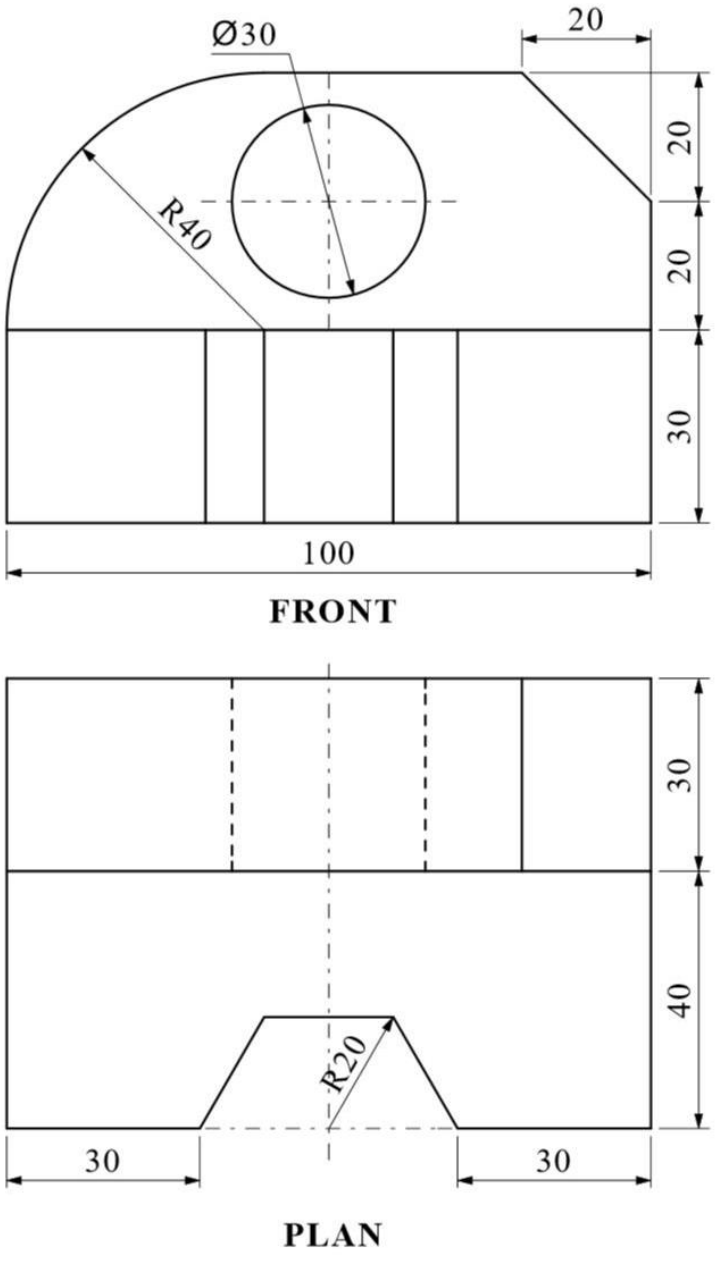

Fig. 1

Task:

Produce for the fabricator an accurate drawing of the shaft support.

Item 2.

James is renting and his Landlord keeps increasing rental fees. He has set aside **6** metres by **4** metres of his plot to build a two-roomed house. He consulted a builder, who told him that a plan and an elevation are important before he starts constructing.

Task:

Design and produce the drawings for James.

745/2
TECHNOLOGY
& DESIGN
Paper 2
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

TECHNOLOGY AND DESIGN

Paper 2
Design and Drawing

SCORING GUIDE

ITEM NO.	BASES OF ASSESSMENT	ATTRIBUTE	ATTRIBUTE RANGE	SCORE
	Drawing paper **Layout**	1. Frame 2. Name 3. Title of the drawing 4. Date 5. Scales used	3 - 5 1 - 2 No layout	2 1 0
1	**a) Projection**	Isometric/oblique No projection	1 0	1 0
	b) Line	1. Constructional lines 2. Out/visible lines 3. Centre lines 4. Dimensioning lines	3 - 4 1 - 2 0	2 1 0
	c) Design	**Correct Surfaces drawn** (11 surfaces on the drawing)	8 – 11 5 – 7 3 - 4 1 - 2 0	4 3 2 1 0
2	**a) Plan**	**Considerations** 1. Scale use 2. Splash apron 3. Door 4. Walls 5. Window 6. Roofline 7. Dimension 8. Correct no of rooms 9. Fit to given area	 7– 9 5 - 6 3 - 4 1 - 2 0	 4 3 2 1 0
		Convention on the plan 1. Doors 2. Windows 3. No convention		 2 1 0
	b) Elevation	**Considerations on the elevation** 1. Splash apron 2. Roof cover 3. Verge/fascia board 4. Wall 5. Elevation name	3 – 5 1 – 2 0	2 1 0

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745/3 Inst. Sch.
TECHNOLOGY & DESIGN
Paper 3
Practical
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

TECHNOLOGY AND DESIGN PRACTICAL INSTRUCTIONS

Paper 745/3

INSTRUCTIONS TO SCHOOLS:

Great care should be taken that the information given below DOES NOT reach the candidates either directly or indirectly.

Each candidate will require the following materials, tools and equipment:

Materials:

1. Blockboard/ Soft board (1.0 m × 0.6 m).
2. Wire clips (15 pieces for 1.5 mm cable and 10 pieces for 2.5 mm cable).
3. Two Junction boxes.
4. Two Switches (single).
5. Two Lamp holders.
6. 3.5 metres of 1.5 mm wire and 1.5 metres of 2.5 mm wire.
7. One Socket (single).
8. Three metallic MK boxes.
9. ¾ inch self tapping screws.

Tools and Equipment:

In addition to the usual electrical installation tools and equipment, the following assorted tools will be required for working out the examination.

1. Hammer.
2. Pliers.
3. Wire stripper.
4. Screw driver (minus/flat).
5. Screw driver (star).
6. Electrical/ Insulating tape.

 END

745/3
TECHNOLOGY
& DESIGN
Paper 3
2024
3 hours

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

TECHNOLOGY AND DESIGN

Paper 3
Practical

3 hours

INSTRUCTIONS TO CANDIDATES:

This paper consists of **one compulsory** *examination item.*

Use the materials, tools and equipment provided as required in the task.

At the end of the examination, leave your work at the work table/place/station.

Jane's two roomed house is powered by a battery for lighting. She finds it expensive to charge the battery regularly. She is considering getting connected to the main electricity grid, but her house does not have standard wiring. You have been recommended by Jane's brother to carry out the wiring but she has doubts about your abilities. You have decided to make a model of the wiring on a board in order to convince Jane.

Task:

Using the materials, tools and equipment provided, make the model.

END

745/3
TECHNOLOGY
& DESIGN
Paper 3
2024

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

TECHNOLOGY AND DESIGN

Paper 3
Practical

New Lower Secondary Curriculum

SCORING GUIDE

Bases of assessment	Attributes and scores	Attribute range	scores
1. Preliminary steps	**a) Protective gears** i) Helmet ii) Overall iii) Gloves/Apron iv) Safety boots v) Gaggles	Having 4-5 gears Having 2 – 3 gears Having 1 – 0 gears	**2** **1** **0**
	b) Layout of plan and symbols of components i) Plan sketch ii) Switch iii) Socket iv) Bulb v) Junction box	Laying out: 4 - 5 components 2 – 3 components 1 – 0 components	**2** **1** **0**
	c. Wiring diagram i) light circuit ii) socket circuit	**2** circuits layout 1 circuits layout No circuits layout or Incorrect circuit	**2** **1** **0**
2. Operations	**a) Connecting light circuit** (i) Intake to junction box (ii) Junction box to switch (iii) Switch to lamp holder (iv) Junction box to lamp holder	4 Correct connections 3 Correct connections 2 Correct connections 1 Correct connection No /incorrect connection	**4** **3** **2** **1** **0**
	b) Connecting socket circuit (i) Intake to junction box (ii) Junction box to socket	2 Correct connections 1 Correct connection No connection	**2** **1** **0**
	c) Fixing accessories (i) Clipping wires (ii) Fixing MK/Switch/socket/JB	Fixing 2 accessories Fixing 1 of the accessories No accessory fixed	**2** **1** **0**

Bases of assessment	Attributes and scores	Attribute range	scores
	d) Correct use of tools i) Hammer - Clipping ii) Wire stripper - Striping iii) Screw driver - Fixing MK/Junction boxes/lamp holder/switch/socket	3 tools Used correctly 2 tools used correctly 1 tool correctly No tool used or incorrect use of tools	**3** **2** **1** **0**
3. Finishing	**Work finish** a) Clean work area b) Gathering tools	Two finishes I finish Incorrect or No finish	**2** **1** **0**