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MATHEMATICS  
Paper 1  
APRIL, 2025  
 $2\frac{1}{4}$ hours



**CLEVERLAND HIGH SCHOOL- MAYA**  
END OF TERM ONE ASSESSMENT EXAMS  
**Uganda certificate of education**  
**SENIOR TWO**  
MATHEMATICS  
Paper 1  
**2hours 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 items in all
- Any additional item(s) will not be scored
- All answers must be written in the answer booklets or papers provided
- A graph paper will be provided
- Silent, non programmable scientific calculators and mathematical tables with a list of formulae may be used.

## SECTION A

*(Attempt all items in this section)*

### ITEM 1

The ages of four siblings Aisha, Juma and Musa are 10<sub>two</sub>, 11<sub>three</sub>, 24<sub>five</sub> and 24<sub>seven</sub> respectively.

#### Task.

Who of the four siblings is the youngest?

### ITEM 2

A certain tourist in U.S.A is planning to visit the following places in Africa next month. The tourist has highlighted the following places on the map of Africa. These places include:- South Africa, Burundi, Kampala, Dodoma, Accra, Bujumbura, Nairobi, Ghana, Johannesburg, Tanzania, Uganda, Kenya, Cairo, Kigali, Egypt, and Rwanda.

Mr. Apeku Elias is an agent for three companies of soda; coca cola, Pepsi, and Riham beverages. He earns 10% commission on every carton of soda sold. He sells each carton of coca cola at ugx.11,000, Pepsi at ugx.11,000 and Riham at ugx.10,000 on a good day, he sells 30 cartons of coca cola, 20 cartons of Pepsi and 10 cartons of Riham.

#### Task

- a) Help the tourist to sort the places by use of an arrow diagram.
- b) List the members of the
  - (i) Domain
  - (ii) Range.
  - (iii) What is the relationship between the domain and the range
  - (iv) Describe the type of mapping in the arrow diagram in (a) above.
- c) Help Apeku to know the commission earned on a good day from all the sell.  
(20 scores)

## SECTION B

### PART I

*(Attempt one question from part one)*

### ITEM 3

The house of prayer ministries international for a long time has been soliciting money to construct a pentagon church that can congregate the entire church members. The senior pastor has a vision of a pentagon church which can fit exactly in the plot of land available.

He also has to buy a sinotruk to transport all the building materials and requirement. The contractor informed him that the area of each triangle that can be formed from the pentagon church will cost him UGX 300,000,000.

He then proceeded to Nina motors to buy a sinotruk. A brand new sinotruk costs four hundred eighty millions on cash. It can also be bought by paying a deposit of a quarter of the cash price value and later pays UGX 7.5 millions weekly for 50 weeks or pay 24.5 million monthly for 15 months. The pastor does not have the required money to obtain the sinotruk on cash.

**Task.**

- (a) Help the pastor determine the cost of the church.
- (b) How much extra will he pay for the sinotruk and explain why?

**ITEM 4**

Mr. Kasozi a farmer in Busembe village in preparing to construct a poultry house in form of a polygon whose exterior angle is 120° more than exterior angle. He is preparing to divide his poultry house into a triangular portion in which he will put the layers, broilers, cloilors and other types of poultry.

**Task.**

- (a) Help Mr. Kasozi to know the number of triangular houses he made in the poultry house to fit his plan.
- (b) Calculate the interior angle sum of Mr. Kasozi poultry house.

**PART II**

*(Attempt one question from part two)*

**ITEM 5**

Mr. Kato’s family has siblings, Shamim, Gorret, David, Juma and Esther. There is an interval of 2 years between the ages of children from Esther to Shamim. Shamim is 2 years old.

On addition three farmers in Kigezi needs to prepare their land for planting.

**Support.**

- a) At table showing tools, productivity of available farm and cost per day.

<b>Tools</b>	<b>Productivity (hectares per day)</b>	<b>Cost per day(ugx)</b>
Hand hoe	0.1	5,000
Ox plough	0.5	87,500
Tractor	5	250,000

b) A table showing resources that farmers have at a time.

<b>Farmer</b>	<b>Resources available (land in hectares)</b>	<b>Money in ugx</b>
Mr. Outa	1	250,000
Mr. Kamu	3	1,200,000
Mr. Wonialla	5	800,000

**Task.**

- a) Using an arrow diagram, explain the information about your family.
- b) As a senior two learner, advise these farmers on the most effective method to use.

**ITEM 6**

Due to the invasion of a floating island on river Nile Waiswa can not use his usual routr to sail from Busaana to Kalangala. He instead first sails Northwards to Bukamba then turns to the East to get to Kalangala. Bukamba is 30km north of Busaana. Kalangala is 20km East of Bukamba.

The boat engine consumes diseal worth ugx.4700 per kilometer.

**Task.**

Help Waiswa establish the cost of the extra fuel he will need to convert the unusual distance to safely reach his destination.

**END.**