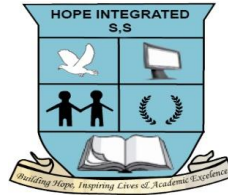


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MATHEMATICS
PAPER ONE
AUGUST 2024
2¹/₄ HOURS



HOPE INTEGRATED SECONDARY SCHOOL

Uganda lower Certificate of Education

MATHEMATICS

END OF TERM II ASSESSMENT

SENIOR THREE

Paper 1

2 Hours AND 15 MINUTES

INSTRUCTIONS TO CANDIDATES

*This paper consists of sections **A** and **B***

*Attempt any **two** items in Section A and B only **one** item in 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.*

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Turn Over

SECTION A (COMPULSORY)

Attempt all question in this section

1. The beverages bottling companies dealing in wines and spirits received orders from different bars in the last month. 40 bars in Masaka city ordered for 2000 crates of bottles and the company delivered them.

Later the alone, the demand for alcohol increased due to season since people had accumulated income. Entrepreneurs started other bars thus 50 bars ordered for 4000 crates. The demand according to the traders hiked.

The bottling company wanted to specialize on which kind of drinks they would supply. The cost of producing wine is 50000 while that of producing spirits is 60000.

The manager availed only 12000000 for producing all types of drinks.

Task

- (i) Evaluate the number of bars that demanded for 10000 crates since people kept on consuming alcohol at high rate.
- (ii) Determine the number of crates ordered by 100 bars according to the demand above
- (iii) How many bottles of wine did the company produce since it opted for 50 bottles of spirits. Do you support him or not

2. The school main garden was fenced using a barbed wire of length 24km to avoid destruction of crops by students and animals. The area of garden is 220km^2 according to surveyor.

The agriculture facilitator has been tasked to estimate the dimensions of the garden for proper budget in case of poles for fencing

The school main garden produces different vegetables such as cabbages, eggplants, and tomatoes. These items are sold to the school welfare. The money is saved in school entrepreneurship club that gives a simple interest of 5% per year.

Previously they used to produce 100 heads of cabbage, 250 bags of eggplants and 20 basins of tomatoes. The production has now increased by 10% each to the previous quantity. Given that each head of cabbage is 500, 1 bag of eggplant is 600 and 1 basin of tomatoes is 2500

Task

- (i) Assist agriculture teacher to clearly explain the length and width of the garden and state how many times is length to width
- (ii) Determine the amount of money since the agriculture club saves for only two shares after increase in production

PART ONE

Choose one question from this section

3. The world Health Organization is conducting a survey about the diseases spread by mosquitoes such that they can for appropriate measures to combat the spread of such diseases. The study report was based on number of patients who tested positive for diseases spread by mosquitoes. 90 patients tested positive for yellow fever, 120 patients tested positive for elephantiasis and 150 tested positive for malaria whereas 100 tested positive for typhoid. Some patients tested for all diseases. Those who tested positive for elephantiasis and malaria only was twice those who tested positive for all diseases. Those who tested yellow fever and elephantiasis only were 20 more than those who tested for malaria and elephantiasis only. 30 tested positive for yellow fever and malaria. Those who tested at least for two diseases were 110.

- (i) Assist the public to understand this information
- (ii) How many patients were tested during the study report
- (iii) Mosquito nets were given to those who tested positive for only one disease for only one disease. Which chance did Amos have if he had elephantiasis

PART II

Choose one question from this part

Hope school bought cylindrical tank radius 350cm and height 550cm. Due to water shortage, the director ordered for a similar tank whose height was 2200cm.

Each litre of water is 25.5/, the school pumped and money was saved instead of buying it.

Mr. Musoke senior plumber bought a piece of land from school in town and wanted to exchange it with another plot in the village.

Due to difference in value, the area of plot at school in town is 132km^2 and was exchanged with 2112km^2 . The length of plot in the village is 48km.

Task

- (i) Help the director to understand the amount of money saved after plumbing using the school pump.
- (ii) Assist the plumber to know the length and width of plot bought with school.

END