MATHEMATICS LOWER SECONDARY CURRICULUM HOLIDAY ASSESSMENT

1 hour 30 minutes

Attempt all items

ITEM 1

A store has a sale with discounts of 25%, 40%, and 50%, respectively. A customer buys an item with a regular price of $80. In the same store, a recipe calls for 0.6666666……. cups of sugar to make a dozen muffins.

In the year 2023, the store had a budget of $500,000 and plans to spend 0.6% on salaries, 0.2% on equipment, and the rest on miscellaneous expenses. Due to price fluctuations, the store produced 540 units of a product. 1/10% of them failed inspection.

Tasks (20 marks)

a. What is the total discount percentage and how much is the final price?
b. How much sugar is needed to make 3 dozen muffins?
c. How much money will be spent on miscellaneous expenses?
d. How many units passed the inspection test?

ITEM 2

Recipe Adjustment

You are baking a cake that requires (3 \4) cup of sugar. However, you want to make only half the recipe.

Tasks : **(10 marks)**

1. How much sugar do you need for half the recipe?

2. If you decide to make one and a half times the original recipe, how much sugar will you need?

3. Convert (3 \4) cup of sugar to a decimal.

4. If you have only (1\2) cup of sugar, what fraction of the original recipe can you make?

ITEM 3 (20 marks)

St. JULIAN is to transport its S. 4 students for fieldwork in Kasenyi. All the 400 students are to be transported using either coasters or buses. Each coaster can carry 40 people while each bus can carry 80 people. The transport department of the school has only 8 drivers on duty and up to four coasters. If the cost of hiring a coaster is shs. 150,000 and that of hiring a bus is shs. 300,000.

While in Kasenyi their geography teacher Mr Kefa visited Mr Sembatya's shop from which he found that three shirts and two trousers cost shs. 105,000 at Mr. Sembatya's shop. Two shirts and five trousers cost shs. 180,000 at the same shop;

Task:

(a) (i) Write down the five inequalities representing the above information.

(ii) Represent the inequalities on a graph paper.

(iii) Find the possible number of coasters and buses that can be used and hence determine the minimum cost.

(b) Find the cost of;

(i) each shirt and each trouser.

(ii) three items of each type at the shop.

END