

KIYALA HIGH SCHOOL
MID-TERM TWO ASSESSMENT TEST 2024

PHYSICS

S.3

Time: 2 Hours

INSTRUCTIONS:

- *This paper consists of four items.*
- *Answer **all** the items.*

Item 1

Your mother went to the market to purchase some food staffs like maize, rice, peas, posh among others but on reaching home, she realized that the food staffs she bought were mixed with metals. She bitterly complained about the market venders and wanted to take them back to the market but could not because of the distance and the cost of transport.



Task

- a)* As a physics student, write a statement explaining clearly how your mother can remove the metals out of her food staffs.
- b)* Ig your mother used your explanations in (a) above but found some few metals remaining in the food staffs, explain what could have been the cause of this and what advice can you give your mother.

Item 2

At Kumi bus park, buses are loaded on their top and others are loaded below their seats. However, many accidents on the roads involve buses loaded on their top but not buses loaded below their seats.

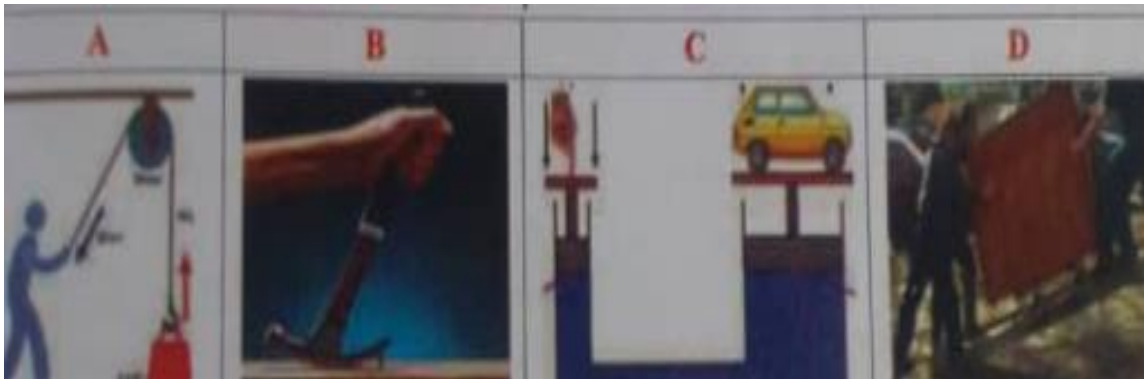


Task

- a) As a physics student, explain why many accidents are involving the buses loaded on their top but not those loaded below their seats.
- b) Explain with reasons what can make the bus loaded below their seats cause accidents.

Item 3

Different types of machines are designed to do different work whenever you are to use that type of machine at our homes or different places



Task

- a)** Use the figure A, B, C and D above to state and explain the uses of simple machines.
- b)** A simple machine is used to lift a load of 48kg through a vertical height of 12 cm using an effort of 160 N through a distance of 3 cm. determine the;
 - i)** Velocity ratio of the machine.
 - ii)** Mechanical advantage of the machine.
 - iii)** Efficiency of the machine.
 - iv)** Energy wasted in the machine.

Item 4

A mother preferred to cover her daughter using two thin blankets od one thick blanket of the same size.

Task

- a)** As a physics student, explain why two thin blankets are wormer than a single thick one.
- b)** Apart from covering her daughter with a blanket, what else can be done by another mother to keep her daughter in a worm condition and explain why it's necessary.

GOODLUCK