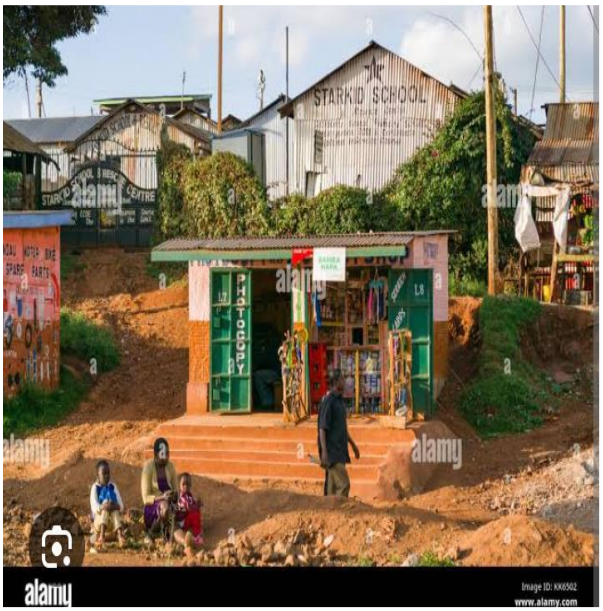
KIYALA HIGH SCHOOL
END OF YEAR ASSESSMENT TEST 2024
PHYSICS
S.1

Time: ***1hr:30mins.***
INSTRUCTIONS:

- The paper contains ***two*** items.
- attempt ***all the two*** items.

Item 1

A certain family stays near the marram road and a school. Every day, the family receives dust raised by moving vehicles from the road and the bad smell from the school pit latrines. In the morning hours, the dust is not so much and the smell from the pit latrine is not so much either. But these conditions worsen around midday on hot sunny days. The family is disgusted by these conditions. They don't know the cause of these conditions.



Task

As a physics learner;

a) Write a message to this family explaining what causes the above conditions? ***(10 scores)***

b) Evaluate the possible ways of solving the above problem in the scenario? ***(10 scores)***

Item 2

One day Mukasa a primary six boys from Nawangoma village was crossing a small river that separates nawangoma from Kivubuka. On reaching the river, he was surprised on seeing insects and some birds walking on water something he didn't believe. He picked a stone of about 10g to hit the birds, he hit off target and the stone sunk in water something that surprised him more. Not only that, he picked on a dry stick to wipe the insects off from water and after he threw it in water and this time round the stick remained in the water surface and Mukasa couldn't really believe what he was experiencing. On reaching where he was going, he was forced to take a shower and dried himself using a towel.

SUPPORT

Acceleration due to gravity, $g=10ms^{-2}$

Task

a) As a physics student help Mukasa to clear his surprises by telling him why the insects and the birds behaved that way when he first saw them.

b) State two ways of reducing the effect that made Mukasa surprised as given in (a) above.

c) Educate Mukasa on why the stone and the stick behaved differently when he dropped them in water.

d) Calculate the weight of the stone that Mukasa used to hit the bird.

e) i) State the phenomenon under which Mukasa's body got dried,

ii) State any other two applications of the above phenomenon in e(i) above.

Wishing you good luck