KINGDOM HIGH SCHOOL, GAYAZA

SENIOR TWO

MID TERM II

PHYSICS

TIME: 1 HR

INSTRUCTIONS TO CANDIDATES:

Answer all questions in this paper

All questions carry equal marks

ITEM ONE:

A long time ago solar eclipses were considered as a message from the gods since the people in the age dwelt so much in the spiritual realm than the scientific word. But with the development of science and technology, eclipses can now be explained scientifically instead of spiritually. Whenever eclipses occur, many people gather out in open places to watch the beautiful view of the heavenly bodies as they align themselves in a beautiful display.

However, in most remote areas in Uganda some people still observe the eclipse directly using naked eyes not aware of the risk they are exposing their eyes to in the long run. The science club of your school has taken an initiative to always once in the while go out in the community and teach the community members about scientific facts. This year you are expected to go out during the day an eclipse is expected to occur. You are expect to organize a presentation about eclipses.

TASK.

As a student of physics and science club at your school, you are required to organize for the presentation about eclipses that you will use to address the community members on the day the eclipse is expected to occur. Conclude your presentation by recommending the best safe ways to watch the eclipse. (You may include ray diagram illustrations) **(20 marks)**

ITEM TWO

You are the LC1 chairperson in your village. The village lacks clean water for domestic use, the government mobilized resources through the ministry of water and started digging an underground well to supply water to the village. Unfortunately, as the work nears completion, the project ends prematurely due to lack of equipment to draw water from the well.

TASK:

joshiakitokwa@gmail.com

(a) Suggest a simple machine model that can be erected on the well to help the village members draw water without any risk of drowning.
(b) Outline the steps you would take to design the machine.
(c) Design the machine and explain how it will be applied. **(20 marks)**

END

Strive to be the best

joshiakitokwa@gmail.com