535/2
PHYSICS
PAPER 2
July/August 2024
2 hours

WAKISSHA JOINT MOCK EXAMINATIONS

Uganda Certificate of Education

PHYSICS

Paper 2

Practical

2 hours

INSTRUCTIONS TO CANDIDATES:

This paper consists of two examination items.

Answer **one** *item in all.*

Any additional items answered will **not** *be scored*

Candidates are **not** *allowed to start working with the apparatus for the* **first quarter of an hour.** *This time is to enable candidates; read the items thoroughly, check for the apparatus they will need and plan appropriately.*

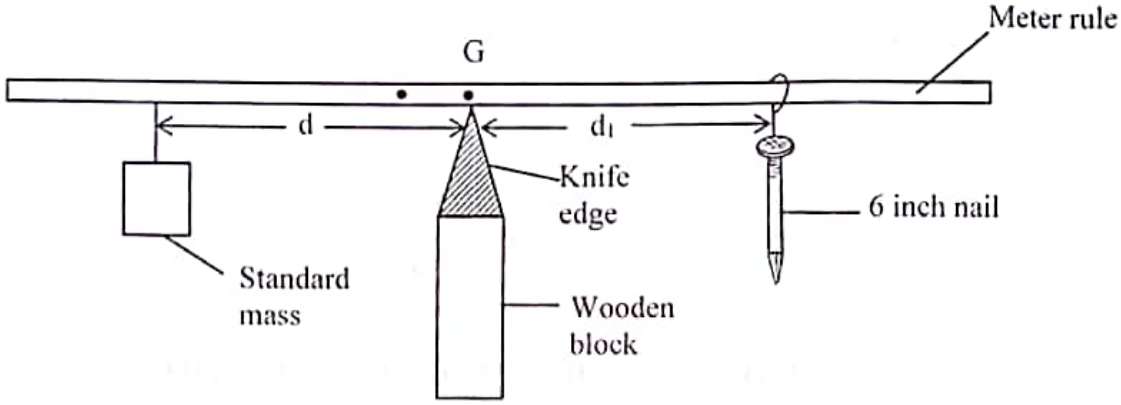
A graph paper will be provided.

Mathematical tables and silent non-programmable calculators may be used.

Turn Over

Item 1

A businessman who deals in nails has to weigh the nails in kilograms but has a faulty weighing scale. A customer wanted to buy only 20 six-inch nails but complained about the mass of the nails being sold not meeting the recommended standard set by UNBS of 30.0 g to 40.0 g. The businessman did not know how to determine the mass of the nails and approached you.



You may use the setup above or use a different one.

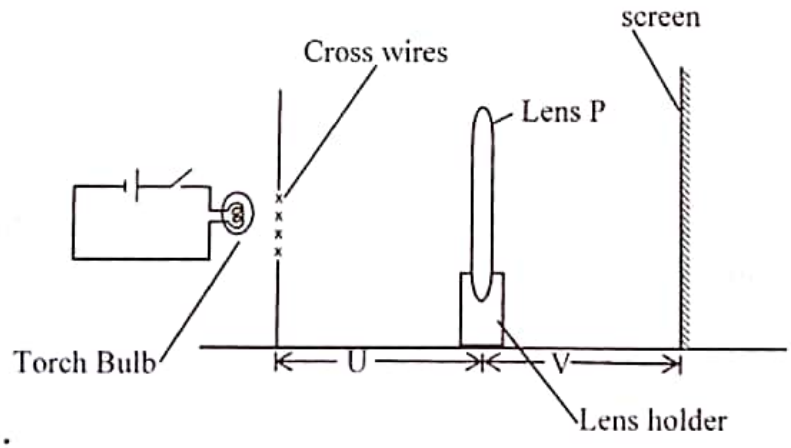
Task:

As a student of physics, use scientific investigation to help the businessman determine the mass of the 20 nails and how much the customer should pay if he charges Ush.5500 per kilogram.

Hint: $M_N = \left(\frac{M}{S}\right)$

Item 2:

While setting up a projector, the lens fell and got broken. According to the specifications written on the projector, it can use a lens of focal length 8.0 cm -12.0 cm. A lens P was brought to replace the broken one but the operator was not sure if it had the same power.



Task :

As a student of physics, carry out a scientific investigation to determine the focal length of the lens provided and advise on whether the lens can be used in the projector.

Hint: $\frac{U}{V} = \left(\frac{1}{f}\right) U$

END