**232/3 PHYSICS**

**PAPER 3 PRACTICAL**

**OPENER EXAMINATION TERM 3, 2022**

**SEPTEMBER 2022**

**CONFIDENTIAL INSTRUCTIONS TO SCHOOLS**

-The information contained in this paper is to enable the head of school and teacher in charge of Physics to make adequate preparations for this year’s Physics joint practical examination. NO ONE ELSE should have access to this paper or acquire knowledge of its contents. Great care must be taken to ensure that the information herein does not reach the candidates either directly or indirectly.

- The apparatus required by each candidate for the Physics joint practical examination are set out on this page. It is expected that the ordinary apparatus of a Physics laboratory will be available.

- The Physics teacher should note that it is his/her responsibility to ensure that each apparatus acquired, for this examination agrees with specifications on this page.

**Question 1**

***Provide each candidate with the following apparatus.***

* A metre rule
* A spring balance ( RANGE ABOVE 2.5 N)
* A mass of 200g (2N) with a hook or (two 100g masses) labeled M
* A complete retort stand
* Knife edge support at least 7 cm high
* Two light strings about 10cm long.

**QUESTION TWO**

* A nichrome wire mounted on a millimeter scale labelled AB(use a wire of diameter 0.36mm)
* A galvanometer.
* Jockey
* A carbon resistor labelled X .(10 ohm carbon resistor)
* 8 Connecting wires, 4 with crocodile clips at both ends.
* A resistance wire labelled R mounted on a half meter rule(use a wire of diameter 0.36mm fixed on half metre rule) using cello tape.
* Ammeter (range 0-1)
* Voltmeter (range 0-5 or 0-2.5)
* One dry cell in a cell holder
* Micrometer screw gauge
* Soft board
* Vernier calipers.
* Rectangular Glass block of width 6.50 cm
* Four optical pins.
* Plain sheet of paper.
* Two thumb tacks
* Protractor