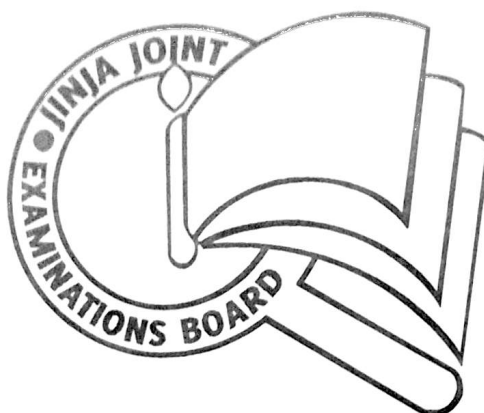


535/2  
PHYSICS  
Paper 2  
Jul/Aug 2026  
2 hours



## JINJA JOINT EXAMINATIONS BOARD

*Uganda Certificate of Lower Secondary Education*  
**MOCK EXAMINATIONS - JULY / AUGUST 2026**

**PHYSICS**

**Paper 2  
Practical**

**2 hours**

### **INSTRUCTION TO CANDIDATES:**

*This paper consists of two examination items.*

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

*Any additional item 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, checking 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.*

**Item 1**

A school watchman uses a powerful torch during night patrols to illuminate areas where security lights are inadequate. The torch produces maximum brightness when each dry cell used in it has an internal resistance between  $0.5\ \Omega$  and  $1.0\ \Omega$ .

One night, the watchman fitted new dry cells from a recently purchased box into the torch. However, the torch produced a dim light instead of the expected bright light. He suspected that some of the cells in the box might not meet the required specification, but he did not know how to test them.

You are provided with one dry cell taken from the box together with the necessary laboratory apparatus.

**Task**

Design and carry out an investigation to determine whether the cell is suitable for use in the torch to produce maximum brightness.

**Hint**

In your report, include; the aim, variables (independent, dependent and controlled), hypothesis, procedure, possible sources of errors with corresponding mitigations, at least 5 data sets, graphical analysis of data, and conclusion/advise.

**Item 2**

A school intends to purchase additional metre rules for use in the physics laboratory. According to the procurement specifications, each metre rule should have a mass between 60.0 g and 90.0 g (inclusive).

A supplier has delivered a batch of metre rules and claims that they all meet the required specification. However, the laboratory technician is not convinced because there is no weighing balance available to directly measure their masses.

You are provided with one metre rule from the batch together with standard laboratory apparatus.

**Task**

Design and carry out an investigation to determine whether the supplied metre rule satisfies the required mass specification as claimed by the supplier.

**Hint**

In your report, include; the aim, variables (independent, dependent and controlled), hypothesis, procedure, possible sources of errors with corresponding mitigations, at least 5 data sets, graphical analysis of data, and conclusion/advise.