

535/2  
PHYSICS  
Paper 2  
(Practical)  
Oct./Nov. 2025  
2 hours



UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

PHYSICS

Paper 2  
(Practical)

2 hours

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of two examination items.*

*Respond to one item only.*

*Any additional item responded to, will not be scored.*

*You are not allowed to start working with the apparatus for the first 15 minutes. This time is to enable you read the items thoroughly, check whether you have all the apparatus needed for the investigation and plan appropriately.*

*Responses to the item must be written in the answer booklet(s) provided.*

*Indicate the item number you are responding to, clearly at the top of the page.*

*Graph paper is provided.*

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

### Item 1

A teacher of Physics sent a class representative to a laboratory attendant to collect convex lenses whose focal lengths range between 8.0 cm to 12.0 cm inclusive, for use during a class demonstration.

The attendant found it difficult to select the lenses of the required specifications since there were many unlabelled boxes in the laboratory, containing lenses.

The attendant randomly picked one of the boxes for the class representative to take to the teacher.

You are provided with one of the lenses that was in the box received by the teacher.

#### Task

Design and carry out an investigation to determine whether the lens is suitable for use in the class demonstration.

#### Hint

In your report, include; the aim, variables (independent, dependent and controlled), hypothesis, procedure, possible sources of errors, precautions to the stated errors, data presentation (at least 5 data sets), data analysis (using graph), and advise/recommendation.

### Item 2

A baby playing with a toy car which only operates on a cell of e.m.f ranging from 1.2 V to 1.7 V, started crying when it stopped to move. On a closer observation, the parent found out that the e.m.f of the dry cell in the toy car had dropped, and decided to buy a new one. Since the writing on the cell could not be seen well, the parent does not know whether the new battery bought has the right specification.

You are provided with the new cell the parent bought.

#### Task

Design and carry out an investigation to determine if the dry cell bought can be used in the toy car.

#### Hint

In your report, include; the aim, variables (independent, dependent and controlled), hypothesis, procedure, possible sources of errors, precautions to the stated errors, data presentation (at least 5 data sets), data analysis (using graph), and advise/recommendation.