

# Standard Operating Procedure (SOP)

Engineering Physics 25PY101

Laboratory

Section 24

Course Instructor: Dr. Sreekar Guddeti

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## Continuous Lab Assessment

| Engineering Physics Laboratory<br>Continuous Lab Assessment (CLA) |  |              |
|---|--|--------------|
| Department of <b>Physics</b>                                      |  |              |
| <b>S.No.</b>  | <b>Component</b>   | <b>Marks</b> |
| 1.  | A report of about 1 page on the proposed experimental layout and background theory before the start of the lab session | 2            |
| 2.  | Viva and Interaction to evaluate understanding of the concepts   | 4            |
| 3.  | Experimentation and Data Collection  | 4            |
| 4.  | Analysis of Experimental data and Interpretation   | 5            |
| 5.  | Finalized report submitted in the next week  | 5            |
| <b>Total</b>  |  | <b>20</b>    |

School of **Applied Sciences & Humanities**

Continuous Lab Assessment (Formative)

### One-page report

Before the lab session, student needs to study about the experiment and summarize his/her understanding in two sides of a single page. The summary may include

- Aim
- Apparatus
- Brief description of theory in not more than six sentences written in own words
- Working formulae
- **Precautions**
- Applications

### Viva Voce

After performing the practice, at least four questions will be asked by the instructor who taught the practice.

## Experimentation and Data collection

While performing the practice, **student needs to be alert as there is risk to life** while dealing with instruments.

## Data collection

Data tables need to be filled in the manual. After data collection, please take the approval of faculty/co-faculty to proceed with graphing in the form of signature.

## Graphing

Take the help of model graph to plot the graph.

Every graph needs to have minimum of three things

- X axis
  - Name of Quantity
  - Symbol of Quantity
  - Unit of Quantity
- Y axis
  - Name of Quantity
  - Symbol of Quantity
  - Unit of Quantity
- Scale
  - Scale-X: 1 cm = ... [X-axis: Unit of Quantity]
  - Scale-Y: 1 cm = ... [Y-axis: Unit of Quantity]

## Analysis of Experimental Data and Calculations

Slopes of linear graphs need to be written on the graph, calculations related to tabular data need to be written in

- Manual, and
- Record (on white side)

## Finalized report submitted in next week

In addition to the 1-page report, the final record must contain the following on the border side --

1. Aim
2. Apparatus
3. Working formula
4. Formula
5. Results





and the following on the white side --

1. Circuit/Ray diagram
2. Model graph
3. Tabular data
4. Calculations

**Note: Results is the final section and there needs to be vertical space of at least 3 inch after the Results section to put stamp of Continuous Lab Assessment (CLA).**

Record is expected to be submitted within a week of performing the experiment.  
**Delay will incur penalty of -1 for every additional week.**

## Summative assessment

| Engineering Physics Laboratory<br>Summative Assessment   |  |            |            |             |
|--|--|------------|------------|-------------|
| <br>   |  |            |            |             |
| Department of <b>Physics</b>   |  |            |            |             |
| S.No.  | Component                              | Examiner 1 | Examiner 2 | Total Marks |
| 1.   | Objective and Procedure                | 4          | 4          | 8           |
| 2.   | Experimentation and data collection    | 4          | 4          | 8           |
| 3.   | Computation of Results                 | 4          | 4          | 8           |
| 4.   | Analysis of results and interpretation | 4          | 4          | 8           |
| 5.   | Viva Voce                              | 0          | 8          | 8           |
| <b>Total</b>   |  | <b>16</b>  | <b>24</b>  | <b>40</b>   |
| School of <b>Applied Sciences &amp; Humanities</b>   |  |            |            |             |

Summative Lab Assessment

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END of SOP