

**Government of Karnataka
DEPARTMENT OF PRE-UNIVERSITY EDUCATION,
18th Cross, Malleshwaram, Bangalore**

Revised List of Experiments and Guidelines for Practical Examination

II PUC - PHYSICS (33)

LIST OF EXPERIMENTS

1. To determine the resistivity of the material of a given wire (of known radius and length) by finding its resistance using Ohm's law.
2. To determine resistance per unit length of a given wire by plotting a graph of potential difference versus current.
3. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
4. To convert the given galvanometer (of known figure of merit and resistance) into an ammeter of desired range.
5. To convert the given galvanometer (of known figure of merit and resistance) into a voltmeter of desired range.
6. To find the frequency of the ac mains using a sonometer.
7. To find the focal length of a concave mirror by finding the values of v for different values of u .
8. To find the focal length of a convex mirror using a convex lens.
9. To find the focal length of a convex lens by plotting a graph between u and v .
10. To find the focal length of a concave lens using a convex lens.
11. To determine the angle of minimum deviation for a given prism by plotting a graph between the angle of incidence and the angle of deviation.
12. To determine the refractive index of a glass slab using a travelling microscope.
13. To determine the refractive index of a liquid by using (i) concave mirror, (ii) convex lens and plane mirror.
14. To draw the I-V characteristics curves of a p-n junction in forward bias and reverse bias.

Note: At least TWELVE (12) experiments have to be conducted in the practical classes.

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GUIDELINES FOR PRACTICAL EXAMINATION

II PUC - PHYSICS (33)

General instructions:

- Duration of practical examination: 2 hours.
- Maximum marks allotted: 30 marks.
- **Minimum TEN (10) different experiments have to be set in the practical Examination.**

SCHEME OF EVALUATION

A. Weightage of marks:

| Sl. No. | Particulars | Marks |
|--------------|---------------------------|-----------|
| I | Performing the Experiment | 20 |
| II | Viva – Voce | 04 |
| III | Practical Record | 06 |
| TOTAL | | 30 |

B. Distribution of marks:

I. Performing the Experiment

| Sl. No. | Particulars | Marks |
|--------------|---------------------------------------------------------------------------------------------------|-----------|
| 1 | Writing the principle of the experiment | 2 |
| 2 | Writing the formula and explaining the terms | 2 |
| 3 | Writing the diagram / figure / circuit with labeling (At least two parts) | 2 |
| 4 | Writing the tabular column/ observation pattern | 2 |
| 5 | Constructing the experimental set up/ circuit | 3 |
| 6 | Performing the experiment and entering the readings into the tabular column / Observation pattern | 4 |
| 7 | Substitution and calculation/plotting the graph and calculation | 3 |
| 8 | Result with unit | 2 |
| TOTAL | | 20 |

Note for Sl. No. 6:

1. At least three (3) trials have to be taken in case of finding mean value.
2. At least five (5) readings have to be taken in case of plotting the graph.

II. Viva- voce

1. Four questions must be asked and each question carries 1 mark.
2. The questions in the *viva- voce* should be simple, direct and related to the experiment to be performed by the student.

III. Practical Record

| Sl. No. | Particulars | Marks |
|---------|----------------------------------------------------------------------------|-------|
| 1 | If the student has performed and recorded 12 experiments or more | 6 |
| 2 | If the student has performed and recorded 10 or 11 experiments. | 5 |
| 3 | If the student has performed and recorded 9 experiments. | 4 |
| 4 | If the student has performed and recorded below 9 and above 5 experiments. | 3 |
| 5 | If the student has performed and recorded 5 or less than 5 experiments. | 0 |

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