

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

B. Sc. PHYSICS - SEMESTER – I (PRACTICAL COURSE)

PROGRAMME CODE: SCIUG101

(Effective from June 2023 Under NEP – 2020)

TYPE OF COURSE	CREDIT	COURSE CODE
Multidisciplinary Core Course (MDSCP)	2	SC23MIDSC P PHY103

Teaching Hours per Week: 04 Hours for 2 Credit practical and Teaching Hours per Semester: 60 Hours

Multi Discipline Core Course (MIDSCP) Practical

1. Determine a Damping coefficient, Relaxation and quality factor in the damped motion of a simple Pendulum.
2. Study of Resonator: Verification of relation $n^2 (V + kv) = \text{constant}$ and determine the frequency of unknown for k.
3. Determination of angular acceleration (α) and find MI of a Fly wheel using plot α verses Tourqe
4. To Find Refractive index of liquid using convex lens.
5. Verification of Stefan Boltzmann's fourth power law using A.C. /D.C. Source
6. Study of Travelling Microscope, To determine Gauz eliment, Diameter of tube, width of auxiliary slit
7. V-I Characteristics of Zener diode and Determine Breakdown voltage
8. Study of Zener Diode as a voltage Regulator.
9. P-N Junction diode as Half Wave Rectifier (i) Without filter. Calculation of Percentage of Regulation.
10. P-N Junction diode as Full Wave Rectifier (i) With Series Inductor Filter
(ii) With Shunt Capacitor Filter. Calculation of Percentage of Regulation
11. Study of Logic Gates: AND, OR and NOT. Verification of Truth table and giving understanding of voltage level for "0" and "1" level.
12. Study of Bridge Rectifier Without filter. Calculation of Percentage of Regulation.