Shri Govind Guru University

GODHRA

Syllabus of

B. Sc. Semester - I

PHYSICS

(Based on NEP-2020)

Effective from August, 2023

B. Sc. - Semester – I (PHYSICS)

MAJOR-2

BS23MJ1PH2 : PHYSICSPRACTICAL(Credit-4)

Minimum 10 practical must be performed (5 in each group)

GROUP A

1. **Melde's Experiment.**
   To prove P/L constant.
2. **Melde's Experiment.**
   To prove T/L^2 constant.
3. **Newton's Ring.**
   To find the wave length of light of given monochromatic source.
4. **Cauchy's Constant.**
   To determine Cauchy's constant A and B graphically and to find the wavelength of unknown line of mercury spectrum.
5. **'g' by Bar pendulum.**
   To obtain the value of 'g' by bar pendulum.
6. **Study of Resonator.**
   To test the accuracy of relation n (V + Kv) = constant and to determine the frequency of unknown fork.
7. **Refractive Index of Liquid using Convex Lens.**

GROUP B

1. **Series Resonance**:
   To determine the frequency of a.c. emf by series resonance circuit varying capacitor.
2. **Parallel Resonance**:
   To determine the frequency of a.c. emf by series resonance circuit by varying capacitor.
3. **How to use Multimeter.**
   Measuring Resistance R, AC & DC Voltage and Current, checking electrical fuse

4. **Half-Wave & Full-wave Rectifier.**

   Obtain load characteristic and %regulation for Full-wave rectifier with-out filter circuit and by using capacitor filter circuit. Determine ripple factor for Full wave rectifier without filter only.

   Bridge Rectifier.

5. Obtain load characteristic and regulation for Bridge rectifier without using filter circuit and by using capacitor filter circuit. Obtain ripple factor without filter circuit.

6. **Analysis of Errors.**

   Determine the True value, standard deviation, standard error, probable error and percentageerror For various measurements.

7. **Digonalizationofgivenmatrix(2x2).Evaluatetraceofamatrix.**

   Determine the Eigen values of given matrix.

****