



VIVEKANANDA COLLEGE
(Residential & Autonomous – A Gurukula Institute of Life – Training)
College with Potential for Excellence

Re-accredited with “A” Grade (CGPA 3.59 out of 4.00) by NAAC
Affiliated to Madurai Kamaraj University
Managed by Sri Ramakrishna Tapovanam, Tirupparaitturai, Trichy
Tiruvedakam West, Madurai District-625 234, Tamil Nadu
DBT STAR COLLEGE SCHEME
Department of Biotechnology, Government of India, New Delhi
DEPARTMENT OF PHYSICS



No. of hands-on experiments being conducted (Pre support)

- 1 Compound Pendulum-the value of acceleration due to gravity
- 2 Moment of Inertia using Bifilar Pendulum
- 3 Torsional Pendulum–Rigidity modulus and Moment of Inertia
- 4 Surface Tension & Interfacial Surface Tension by drop weight method.
- 5 Viscosity– Stokes method
- 6 Helmholtz Resonator–Relationship between the volume of air in a resonator
And the fundamental frequency of its vibration.
- 7 Sonometer–Frequency of fork & Verification of Laws
- 8 Sonometer–Frequency of A.C.
- 9 Meld’s Strings–Frequency of A.C.
- 10 Spectrometer–A&D
- 11 Spectrometer–i-d Curve
- 12 Spectrometer–Dispersive power of prism
- 13 Spectrometer–Grating-Normal incidence
- 14 Airwedge–Thickness of a wire
- 15 Newton’s Rings–Radius of curvature
- 16 Young’s Modulus–Uniform bending(Pin and Microscope method)
- 17 Young’ Modulus – Non-Uniform Bending (Optic Lever, Scale and Telescope
method)
- 18 Potentiometer–Ammeter calibration
- 19 Potentiometer-Voltmeter calibration
- 20 Carey Foster Bridge-measurement of Low resistance

21	Self Inductance–by Anderson’s bridge
22	Quantity sensitiveness of Ballistic Galvanometer
23	Internal resistance of a battery using B.G
24	M1/M2 deflection magnetometer–TanA,TanB
25	M&BH–Deflection Magnetometer
26	Field along the axis of circular coil– deflection methods
27	Grating–minimum deviation –dispersive power
28	Spectrometer-small angled prism
29	i-i’ curve–prism-spectrometer
30	Superposition theorem
31	Maximum power transfer theorem
32	LCR series resonance circuit
33	LCR parallel resonance circuit
34	Comparison of EMF’s –Using spot deflection galvanometer
35	Comparison of Capacitances- Using spot deflection galvanometer
36	Solar cell characteristics
37	Semiconductor Diode Characteristics
38	Characteristics of Zener Diode
39	Characteristics of Bipolar Transistors
40	JFET Characteristics
41	Characteristics of Photo diode and Photo Transistor
42	Clipping and Clamping circuits
43	Integrator, Differentiator using discrete components

44	h– Parameters of Transistors
45	Split Power supply
45	Measurement of Op-Amp parameters
46	Calculation of RMS value of Sine and Triangular wave form
47	Study of Logic gates– Using discrete components
48	Viscometer–Searle’s Pattern
49	Lummer– Brodhum Photometer
50	Determination of Hysterisis Loss of a transformer by CRO
51	Surface tension–Jeager’s apparatus
52	Constant Deviation Spectrograph
53	Study of Logic gates– Using ICs(7408, 7400,7404, 7432)
54	Verification of DeMorgan’s Theorem using ICs
55	Study of Half adder and Full adder using 7486 and 7408
56	Study of Half Subtractor and Full Subtractor
57	Rectifiers and Filters
58	Summing and Difference Amplifiers using IC741
59	Op-Amp Schmitt triggers circuits
60	Square and Triangular wave generators using IC741
61	Study of BCD Seven Segment Decoder
62	Study of Counters
63	Shift Registers IC7495
64	Wien Bridge Oscillator
65	Hartley Oscillator
66	Colpitt’s Oscillator
67	Ultrasonic Interferometer–Measurement of Speed in liquid
68	Laurent’s Half shade Polarimeter – Specific Rotary power
69	Phase Shift Oscillator
70	Multivibrator using Transistor
71	Assembly Level Programming – Using 8085 Microprocessor Kit (Addition, Subtraction, Multiplication)

72	Single stage Amplifier
73	OP-AMP filters
74	Non-Uniform Bending–Pin and Microscope Method
75	Uniform Bending– Optic Lever, Scale and Microscope Method
76	Non-Uniform Bending–Optic lever, Scale and Microscope Method
77	Uniform Bending– Pin and Microscope Method
78	Compound Pendulum-Acceleration due to gravity
79	Torsional Pendulum-Rigidity modulus and Moment of Inertia
80	Sonometer–Verification of Laws(1 st law &2 nd law)
81	Viscosity by Stoke’s method
82	Newton’s rings –Determination of Radius of curvature
83	Airwedge– Thickness of a wire
84	Spectrometer–Refractive Index
85	Spectrometer–Grating-Normal incidence
86	Carey Foster Bridge –Resistance and Specific resistance
87	Diode Characteristics & Zener Diode Characteristics
88	Logic Gates–AND,OR,NOT

After Support

1. Study of He- Ne laser
2. Fabry Perot Interferometer
3. Michelson Interferometer