Vallal P.T LEE CHENGALVARAYA NAICKER COLLEGE OF ARTS AND SCIENCE
No.5/1, General Collins Road, Choolai, Chennai-112.
Physics Laboratory

UNIVERSITY OF MADRAS: B.Sc. DEGREE COURSE IN PHYSICS SYLLABUS WITH EFFECT FROM 2020-2021
BPS-CSC02: CORE-II: CORE PRACTICAL – I

S.No	List of Experiments	Name of the Equipments	Required Quantity	M/S Name, Address, Email ID & Contact number	
				Cost/Unit	Cost/3Units
1	Young's modulus – Non-uniform Bending – Pin and microscope	T. Microscope regular	3		
		Meterscale	3		
		Slotted weight brass 5x500g	3		
		Screw Gauge 25 mm	3		
		Vernier Caliper	3		
		Knife edge pair	3		
2	Young's Modulus by Non-uniform bending using Optic lever–Scale and telescope	Single optic liver	3		
		scale & telescope deluxe with up & down model(3)	3		
		Screw Gauge 25 mm	3		
		Knife edge pair	3		
		Vernier Caliper	3		
		Meter Scale	3		
		slotted weight 5x50gm	3		
		Travelling microscope	3		
3	Rigidity modulus by	Static torsion appts deluxe with ball bearing device	3		
		Screw Gauge 25 mm	3		

	Static torsion method.	**Reading telescope**	**3**		
		Slotted weight iron 5x500g for above	**3**		
4	Rigidity modulus by Torsional oscillations without mass	**Torsional Pendulum**	**3**		
		Screw Gauge 25 mm	**3**		
		Vernier Caliper	**3**		
		Steel wire 500g	**1**		
		stop watch	**3**		
		cylindrical masses 50 g	**3**		
		Brass or copper wire 250g	**3**		
5	Surface tension and Interfacial Surface tension–Drop Weight method	**Burette stand withfisher clamp**	**3**		
		Glass tube (2 or 3 mm diameter)	**3**		
		Burette 50ml with teflon stop cock	**3**		
		Beaker 100ml	**3**		
		Weight balance 200g cap.	**3**		
		Travelling microscope	**3**		
6	Comparison of Viscosities of two liquids–Burette method	**Burette 50ml**	**3**		
		Iron stand with clamp	**3**		
		Capillry tube 1mm / 30cm	**3**		
		Stop clock	**3**		
		Digital stop watch	**3**		
		Beaker 100ml	**3**		
		Rubber tube coil of 10mm	**3**		
7	Specific heat Capacity of a liquid–Half time correction	**Copper colori meter 3x4**	**3**		
		Steam heater 2 LTR	**3**		
		Lead metal shots 500g	**3**		
		Mercury Therometer	**3**		
		Digital Stop Clock	**3**		
		Regulator Battery Eliminator	**3**		
		Digital Ammeter	**3**		
		Hot plate round 8inch dia with regulator	**3**		
		Sono meter deluxe with bridges and wires	**3**		
		AC sono meter coil and power supply 6V / 1A (3)	**3**		

8	Sonometer–Determination of a.c frequency	**heavy type 18-0-18 @ 2A (3)**	**3**		
		Slotted Weight 5x100gm	**3**		
		Rubber Pad	**3**		
		Digital Balance 200gm	**3**		
		Turning Fork	**3**		
		Iron stand for above	**3**		
9	Newton's rings-Radius of curvature	**Newtons trough 45° inclination**	**3**		
		Convex lenss 100cm	**3**		
		T. Microscope regular	**3**		
		SV Lamp 35W Philips imported	**3**		
		Transformer	**3**		
		Teak stand	**3**		
10	Air wedge – Thickness of a wire	**Metal trough small and compact**	**3**		
		AW plates pair	**3**		
		Sodium Vapour LAMP	**3**		
		Reading Lens	**3**		
		Transformer	**3**		
		T. Microscope regular	**3**		
11	Spectrometer–Grating –Wave length of Mercury lines – Minimum deviation method	**Spectro Meter regular**	**3**		
		SV Lamp 35W Philips imported	**3**		
		Gratings 15000 hilger imported	**3**		
		Reading Lens	**3**		
		Wooden Box	**3**		
		Spirit Level Metal	**3**		
		Transformer	**3**		
		MV lamp 125W with choke and teak stand	**3**		
12	P.O. Box–Specific resistance	**Post office box pico**	**3**		
		Power Supply Battary Eleminator	**3**		
		Galvano meter	**3**		
		DCC wire 100g	**3**		
		Unkown Resistance Coil	**3**		
		Temperature Co-efficient Coil	**3**		
		Thermister for above	**3**		

13	B.G.–Figure of Merit (table galvanometer)	**BG 115 OHM & 12sec osaw**	**3**		
		Power Supply Battary Eleminator	**3**		
		key	**3**		
		Resistance box 500ohms	**3**		
		Resistance box 5000ohms	**3**		
		Table Galvanometer	**3**		
		DC	**3**		
		Lamp & scale outfit for above	**3**		
14	Construction of AND, OR, NOT gates–using diodes and Transistor	**Diode & transistor logic gate - DTL AND, OR, NOT, NAND, NOR with regulated power supply(30V,1A), Bread Board, Voltmeter, Ammeter**	**3**		
15	Zener Diode–Characteristics	**Zener diode characteristics appts withregulated power supply(30V,1A), Bread Board, Voltmeter, Ammeter**	**3**		
16	Sonometer–Frequnenc y of Tunig Fork & Relative Density of a Solid and Liquid	**Sono meter superior**	**3**		
		Digital Balance	**3**		
		Rubber Pad	**3**		
		Slotted weight iron 5x500g	**3**		
		Tunning froke set of 8	**3**		
17	Focal length, Power, R and Refractive Index of a long Focus Convex Lens	**Convex lens any F.L**	**3**		
		Lens stand	**3**		
		Lens screen	**3**		
		Lens holder for above	**3**		
18	and Refractive Index of a Concave Lens	**Concave lens any F.L**	**3**		
		Lens stand	**3**		
		Lens screen	**3**		
		Lens holder for above	**3**		
19	P.O. Box –	**P.O. Box pico make**	**3**		
		Thermister	**3**		
		Thermo meter deluxe	**3**		
		D.C power supply 2, 4, 6 & 2 A	**3**		
		Galvino meter deluxe	**3**		

	Temperature coefficient of resistance	**Beaker**	**3**		
		Hot plate round 8inch dia with regulator	**3**		
20	Spectrometer – Refractive index of a Glass Prism & Hollow Prism- Refractive index of a liquid.	**Spectro Meter regular**	**3**		
		Prism 32mm crown	**3**		
		Hallow glass prism 38mm	**3**		
		Wooden Box	**3**		
		Hallow glass prism made from solid glass block 38mm	**3**		
		Reading Lens	**3**		
		Mercury vapour lamp 80W	**3**		
		SV Lamp 35W Philips imported	**3**		
		Transformer for above	**3**		
		Teak stand for above	**3**		
21	Carey Foster's Bridge- Resistance and Specific Resistance	**CF bridge teak bass heavy with brass fittings**	**3**		
		Electronic lechlanche cell	**3**		
		RES box 2 dial 0.1 &1 pico	**3**		
		Unknown resistance	**3**		
		Galvano meter	**3**		
		Standard resistor 1 or 5 OHM	**3**		
22	Potentiometer – Calibration of a Low Range Voltmeter	**Potentio meter deluxe with heavy teak & brass fittings**	**3**		
		DC power supply 2, 4, 6 & 2A	**3**		
		Rheo stat 30 OHM	**3**		
		Plug kee	**3**		
		High res	**3**		
		Electronic Daniel cell	**3**		
		RES box 2dial 0.1&1	**3**		
		DC volt meter regular	**3**		
		DC Galvino meter regular	**3**		
		DCC wire 500g	**1**		
23	Deflection magnetometer – Tan A Position	**Bar Magnet**	**3**		
		Deflection magneto meter teak base	**3**		

		Total	
		sub Total	
		GST@18%	
		Grand Total	