

**PHYSICS****for (+3) Physics Laboratory for 2019-20**

Sl.No	Particulars	Make
1	Sexant to determination of height of an object.	Inco/Indsaw
2	Digital Timing Technique to determine g and velocity for a freely falling body	Indsaw
3	Maxwel Needle to determine Rigidity Modulus of a wire.	Inco/Indsaw
4	Searls Apparatus to determine Consts. of Elasticity.	Inco/Indsaw
5	Desauty Bridge to comapare the capacitance of the capacitors.	Omega Elect./Indsaw
6	Series LCR Appats to study the Response Curve of Series and Parallael of circuit.	Omega Elect./Indsaw
7	Melde's Apparatus to determine the frequency of a given Tunning Fork.	Inco/Indsaw
8	Apparatus for, to Measure the Field Strength and its Variation of with Magnetic Field using Solenoid.	Omega Elect/Indsaw
9	Apparatus for verification of Thevenin & Nortions Theorem.	Indsaw/Omega Elect.
10	Andersion Bridge , to determine Self Inductance of Coil.	Indsaw/Omega Elect.
11	RC Coupled, complete set up.	Omega Elect.
12	Mechanical Equivalent of Heat, J, by Callender and Barne's constant flow method	Inco/Indsaw
13	Thermal Conductivity of a bad conductor by Lee & Charltons Disc method.	Inco/Indsaw
14	Platinum Resistance Thermometer to determine Temp. Coefficient comp. set.	Indsaw/ Omega Elect.
15	Thermo-Emf of a Thermocouple(const. - Manganin) with Difference of Temperature of its Two Junctions.	Omega Elect/ Indsaw
16	Joules Calorimeter/ Calorimeter	Inco/Indsaw
17	CRO/DSO	Gwienstek
18	Planck's constant using black body radiation and photo-detector	Omega Elect/ Indsaw
19	Transistor Characteristic Apparatus(4 meters)	Omega Elect/Indsaw
20	Zener Diode Characteristic Apparatus	Omega Elect./Indsaw

21	RC Coupled Transistor Apparatus	Omega Elect./ Indsaw
22	Diode Characteristic Apparatus	Omega Elect.
23	To design a Phase Shift Oscillator	Omega Elect./indsaw
24	BJT for normal class A operation	Omega Elect./ Indsaw
25	To design Wein Bridge Oscillator for given frequency using an Op-Amp.	Omega Elect./Indsaw
26	Photo-electric effect: photo current versus intensity and wavelength of light, maximum energy of photo-	Indsaw /Hollmarc optical
27	Colpitt Oscillator	Inco/Indsaw/Omega Elect.
28	Study of V-I Characteristic of Solar Cell.	Inco/Indsaw
29	Laser Source	Indsaw/Hollmarc Optical
30	Planck's constant using LEDs of at least 4 different colours	Indsaw/Hollmarc Optical
31	Millikan oil drop apparatus and determine the charge of an electron	Indsaw/Inco
32	Single Slit & Double Slit.	Selling/Hollmarc Optical
33	Tunneling effect in tunnel diode using I-V characteristics	Indsaw/Inco
34	Building up RS & JK Flipflop from NAND gate.	Omega Elect.
35	Dielectric Constant by Lyster Wire.	Omega Elect.
36	To verify the law of Malus for plane polarized light	Indsaw/Hollmarc optical
37	Babinet Compensator to analyse Elliptical Polarised Light.	-do-
38	Travelling microscope	-do-
39	Goussin eye piece to determine Total Internal Reflection of Solid & Liquid.	-do-
40	Digital Multimeter .	Omega Elect.
41	Digital Stopwatch	Omega Elect.

**CHEMISTRY**

<b>SL. NO</b>	<b>Name of the Equipments</b>	<b>Make</b>
1	Calomel electrode	E.I
2	Conductivity Meter(Digital)	Systronics
3	P.H Meter(Digital)	Systronics
4	Electronic Balace Capacity(0.01gm to 600gm)	Wenser
5	Heating Mantle	Macro Scientific
6	Indicator P.H electrode	Elico
7	Melting & Boiling point apparatus	Macro Scientific
8	Magnetic Stirrer with hot plate	Remi
9	Magnetic Stirrer without hot plate	Remi
10	Piknometer(Capacity-25ml)	Borosilicate
11	Platinum Electrode	E.I
12	Potentiometer	Systronics
13	Resistance Box	Inco
14	Stop watch(Digital)	Acer
15	Spectrophotometre	Systronics
16	Thermo Stat	Macro
17	Vaccum pump	Macro Scientific
18	Wheatstone Bridge	Inco
19	Wagner's shaking machine(6 flask)	Remi

## GEOLOGY

SL NO.	Name Of The Equipment	Make
1	Monocular(Polarising) Petrological Microscope	ALMICRO
		(PM9)
2	Microscopic Slides For Rock Forming Minerals	
3	Microscopic Slides For Rocks(Igneous,Sedimentary &Metamorphic)	
4	Geomorphic Models Of River,Wind,Glacier,Under groundwater&Ocean	
5	Transparent Crystal Models For Axis Of Symmetry (One For Each System)	
6	Transparent Crystal Models For Plane Of Symmetry (One for Each System)	
7	Aerial Photo Graphs (Colour)	
8	Aerial Photo Graphs(B&W)	
9	Wooden Crystal Models Of Combination Forms(For Six System)	
10	Megasopic Specimen For Rock Forming Minerals	
11	Megasopic Specimen For Rocks(Igneous,Sedimentary &Metamorphic)	
12	Invertebrate Animal Fossils Of Brachiopoda,Pelecypoda,Gastropoda,Cephalopoda,Trilobita,Echinoids&Coral	
13	Megasopic Specimen Of Mica,Asbestos,Sillimanite,Baryte,Serpentine, Magnesite,Limestone	
14	Megasopic Specimens Of Ore Minerals Of Fe,Mn,Cu,Al,Pb,Zn	
15	Contact Goniometer	

## ZOOLOGY

SL.NO		
1	Name of the Equipments	Make
2	Microtomy Machine	Macro Syntific
3	Chromatography Chamber	JSGW
4	Haemo Cytometer	GDR
5	Colori Meter	Systronic
6	Sphygmomano meter Manual	Dr Morphin
7	Binocular Microscope	Olympus
8	Compound Microscope	Olympus
9	Kymograph fullkit	Meditech
	Haemoglobinometer	GEM

**BOTANY**

1	Name of the Equipments	Make
1	Paper chromatogram	Biocraft
2	TLC(Thin Layer Chromatography) apparatus	Superfit Continental Pvt. Ltd Model R/340/4 Size – 38X23X20
3	PAGE(Poly Acrylamide Gel Electrophoresis)	E-Gel Power system size-1system model-G8341ST
4	Binocular Microscope	Sigma scientific Ltd Model-1900 resolution
5	Eppendorf Tube	Biologic museum Model-BMLE19
6	Ganongs' photometer	Biologic Museum Model-International
7	Farmers' photometer	Biologic Museum Borocil make or any international
8	BOD(Biological Oxygen Demand) Bottle	Biologic Museum Borocil make or any international
9	PettenKofer Tube	Biological museum model-300ml
10	Ocular micrometer	Biological museum model-International
11	Compound microscope	Biological museum model-International 10mm/200
12	Stage micrometer	Biological museum model-Students microscope
13	Fluorescent Bulb	Biological museum model-Imported 1mm/90
14	High Speed Refrigerated Centrifuge	Any make
15	Folin Phenol Reagent	Biological museum model-400X600mm
		Glasco