

Sl. no	Name of the instrument and its details specification	Quantity
1	<p><b>To determine the value of g using Bar Pendulum.</b></p> <p>The total setup complete with the following</p> <p><b>Compound pendulum (Steel C.P.)</b> – It consists of a powdered coated steel bar of dimensions 100x3.75x0.5cm with a number of equidistant holes drilled along its length at equal intervals of 5cm.</p> <p><b>Stop Watch</b> – Digital</p> <p><b>Reading Telescope</b> – Highly improved apparatus mounted on a 1” dia pillar of 18” length fitted on a heavy cast iron circular base with three leveling screws.</p>	
2	<p><b>To determine the value of g using Kater’s Pendulum.</b> The total set up is complete with the following</p> <p><b>Katter’s Reversible Pendulum</b> – Chrome plated brass rod of 1200mm. long &amp; 11 mm/ diameter with one pair small &amp; large chrome plated brass.</p> <p><b>Reading Telescope</b></p> <p><b>Stop Watch</b> – Digital ,<b>Meter Scale</b> – Wooden 1meter long</p>	
3	<p><b>To determine the wavelength of H-alpha emission line of Hydrogen atom.</b></p> <p>The total set up is complete with the following:</p> <p><b>Spectrometer – Scale:</b> The 177 mm diameter circle is fixed and both the telescope and table are fitted with independent double ended verniers reading to 30 seconds of arc and have independent fine and coarse movements.</p> <p><b>Hydrogen Discharge Tube (Discharge Tube Stand )</b></p> <p><b>High Voltage Power Supply for Discharge</b></p> <p><b>Diffraction Grating</b> – 15000LPI</p>	
4	<p><b>To determine an unknown Low Resistance using Carey Foster’s Bridge.</b></p> <p>The total Set up is Complete with the following</p> <p><b>Standard Low Resistance Four terminal</b></p> <p><b>Rheostat</b> - 116<math>\Omega</math>/1.6Amp 6inch</p> <p><b>Table Galvanometer</b> -30-0-30 MR-100 , <b>Resistance Box</b> - 10000<math>\Omega</math></p> <p><b>Battery eliminator</b> – 0-12V/DC <b>plug key</b> – Two way</p> <p><b>Meter bridge</b> - Complete with 2gap or 4 gap. Fitted with brass jockey &amp; complete with teak wood base.</p>	
5	<p><b>To study response curve of a Series LCR circuit and determine its (a) Resonant frequency, (b) Impedance at resonance, (c) Quality factor Q, and (d) Band width.</b></p> <p><b>LCR Resonance Kit</b> –</p> <p>Complete with the following –</p> <p>One 20 volt AC digital meter, one 20mA AC digital meter, Resistance (50,100,200<math>\Omega</math>), Capacitor (.1, .22, .47<math>\mu</math>F), Inductance (10, 30mH) inbuilt 10 to 100 KHz Oscillator with frequency multiplier (10,100,1K,10K), all 4mm connecting lids heavy base, Attach with bread board, circuit diagram, manual &amp; connecting lids etc.</p>	
6	<p><b>To study the response curve of a parallel LCR circuit and determine its (a) Anti-resonant frequency and (b) Quality factor Q.</b></p> <p>with the following –</p> <p><b>LCR Resonance Kit</b> – One 20 volt AC digital meter, one 20mA AC digital meter, Resistance (50,100,200<math>\Omega</math>), Capacitor (.1, .22, .47<math>\mu</math>F), Inductance (10, 30mH) inbuilt 10 to 100 KHz Oscillator with frequency multiplier (10,100,1K,10K), all 4mm</p>	

	connecting lids heavy base, Attach with bread board, circuit diagram, manual & connecting lids etc.	
7	<p><b>To determine the dispersive power and Cauchy Constants of the material of a prism using mercury source.</b></p> <p>The total set up is complete with the following –</p> <p><b>Spectrometer – Scale</b> : The 177 mm diameter circle is fixed and both the telescope and table are fitted with independent double ended verniers reading to 30 seconds of arc and have independent fine and coarse movements.</p> <p><b>Mercury Lamp Transformer with house</b></p> <p><b>EDF prism – R.I.-1.6-32x32mm, Sprit level</b></p>	
8	<p><b>To determine the planck's constant using LEDs of at least 4 different colours.</b></p> <p>The set-up is one Planck's Constant Apparatus – Inbuilt One digital voltmeter, one digital mA meter, Output terminal, One Various wave length LED complete with box inbuilt – Blue, Green, Yellow, Red, White, LED with input terminal.</p>	
9	<p><b>To determine the height of a building using a Sextant.</b> The total setup complete with the following –</p> <p><b>Sextant standard pattern with stand</b> – 160mm radius, designed to give maximum accuracy. Made from a strip of stainless steel so inlaid in the circular arc as to be considered integrated with it.</p> <p><b>Measuring Tape</b>- five meter long</p>	
10	<p><b>To determine the Moment of Inertia of a Flywheel. The setup including the following</b></p> <p><b>Fly Wheel With Counter</b> - Comprising of carefully machined and balanced cast iron wheel of about 20cm in dia and 4.4cm thick, and steel spindle supported on the ball bearings in strong iron brackets.</p> <p><b>Measuring Tape 3Meter</b></p>	
12	<p><b>To determine g and velocity for a freely falling body using Digital Timing Technique.</b></p> <p>The total setup complete with the following</p> <p>7. It has an electronics timer unit on which three is four 4 mm sockets, two for gates and another two for solenoid and a toggle switch for release and catch the ball. The other unit consists of heavy retort stand.</p>	
13	<p><b>To determine the Modulus of Rigidity of a Wire by Maxwell's needle.</b></p> <p>The total setup complete with the following –</p> <p><b>Maxwell's Vibration Needle Graduated with stand</b> – it consists of a hollow cylindrical brass tube open at both ends provided with a small chuck (torsion head) in the middle of which is fixed a plane mirror. 18.<b>Screw gauge</b> – Brass Body</p> <p><b>Spring Balance</b> –2kg , <b>Stop Watch</b> – Digital , <b>Reading Telescope</b></p>	
14	<p><b>To determine the Elastic Constant Wire by Searle's method.</b></p> <p>The total setup complete with the following</p> <p><b>Rigidity Apparatus (Searle's Pattern) with stand</b> – One can find the modulus of rigidity and Young's modulus for the material of a wire by Searle's method. The 30cm long wire under test is connected to two brass rods about 30cm long .</p> <p><b>Screw gauge</b> –Brass Body , <b>Vernier Calipers</b> – Brass Body</p>	
15	<p><b>To determine self-inductance of a coil by Anderson's bridge Complete with the following –</b></p>	

	<p>Three more Resistance dials having values From (0-10x0.1<math>\Omega</math>), (0-10x1<math>\Omega</math>), (0-10x10<math>\Omega</math>)  Three Decade Resistance dials having value ( 0-10x1<math>\Omega</math>),(0-10x10<math>\Omega</math>),(0-10x100<math>\Omega</math>) One decade dial type Capacitors (0-10x.1<math>\mu</math>F ), Three fixed standard Resistance (R – 10,100,1K<math>\Omega</math>, P – 10,100,1K<math>\Omega</math>, Q - 10,100,1K<math>\Omega</math>) . Two unknown Inductances (50, 100mH). In built AC Supply, DC Supply and Digital Null Detector. Complete with Connecting Leads, Headphone and Instruction Manual etc</p>	
16	<p><b>To determine wavelength of (1) Na source and (2) spectral lines of Hg source using plane diffraction grating.</b>  The total set up is complete with the following –  143. <b>Spectrometer - Scale : Make DEVCO</b> The 177 mm diameter circle is fixed and both the telescope and table are fitted with independent double ended verniers reading to 30 seconds of arc and have independent fine and coarse movements  . <b>Sodium Vapour Lamp</b> – 35Watt  <b>Transformer for Sodium Vapour Lamp</b>  . <b>Lamp house for sodium vapour lamp</b> –  . <b>Diffraction Grating</b> – (15000LPI)  <b>EDF Prism</b> – RI-1.67 (size -32x32mm)</p>	
17	<p><b>To determine the Coefficient of Thermal Conductivity of Cu by Seale’s Apparatus.</b>  The total setup complete with the flowing  182. <b>Searle’s Apparatus for Thermal Conductivity of Copper</b> – Comprising of a copper bar 25mm in diameter and 300mm in length fitted with a steam jacket heater at one ends to be supplied from a steam boiler, and a copper water cool spiral at the other end. The bar has tubes for inlet of water and for thermometers. Fitted in a superior quality wooden case. Packed with felt for thermal insulation and removable from the front showing the construction. Supplied without steam boiler and thermometer.  <b>Thermometers half degree.</b>  <b>Thermometers 1100x1/10.</b>  <b>Steam Boiler</b> – 2liter Capacity  <b>Hot Plate</b> – Round Type  <b>Stop Watch</b> - Digital</p>	
18	<p><b>To determine the Coefficient of Thermal Conductivity of Cu by Angstrom’s Method.</b>  The total setup complete with the flowing  Technical Specifications:  188. <b>Angstrom’s AC Power Supply</b> of 50Volts/10 Amperes that has inbuilt function generator circuit which provides the square wave single to the power supply with a time period of 50 milliseconds and time period of square wave is indicated by two LEDs ( red LED for ON time and Green LED for OFF time.  189. <b>AC Voltmeter</b> (0-50V) and an Ammeter (0-10A) is provided on the front panel of the Power Supply.  <b>A Copper rod of 50cm</b> in length and 2.5cm in diameter fitted inside a wooden box to protect from energy loss.  <b>Heater that is fitted on one end of the copper rod has:</b>  <b>Heater Coil resistance =10<math>\Omega</math></b> (Approx)</p>	

	<b>Maximum Load Current = 4.2 Amp</b> <b>Maximum Load Voltage = 40 Volts</b> <b>Heating Filament = 160 Watts</b> <b>Thermometers 3600C (Set of Four)</b> <b>Connecting leads Instructional lab manual</b>	
Sl. no	Name of the instrument with details Specification	Quantity
1	Good quality bread board (weiss made)	6
2	Constant voltage source (-12-0-+12V 1A)	2
3	Constant voltage source (0-+10V 1A)Variable	4
4	Constant voltage source (0-+5V 1A) Variable	4
5	Digital voltmeter (0-2V)	6
6	Digital voltmeter (0-20V)	6
7	Digital voltmeter (0-200V)	6
8	Digital voltmeter Dual Range (0-2/20V)	4
9	Digital voltmeter (0-20/200V)	4
10	Digital micro-ammeter (0-200uA)	4
11	Digital mili-ammeter (0-200mA)	6
12	Digital mili-ammeter (0-20 mA)	
13	Digital Multi-meter         Make – Metravi Model No 603, Make – Metravi Model No 702,    Make- HTC model no- 830	3*2=6
14	Stop clock ,Make-VENUS	
15	Cathetometer(height 60 cm) for Y determination (v.c 0.001 cm) Make- DEVCO	1
16	Variable Inductance Coil 0.1 mH- 1mH	
17	Electronics components , P-n junction diode, IC -741, carbon resistor(varable range) , transistor (CL-100, SL- 100)	Each 50 pcs