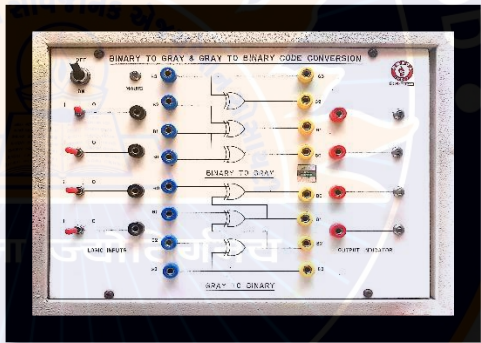
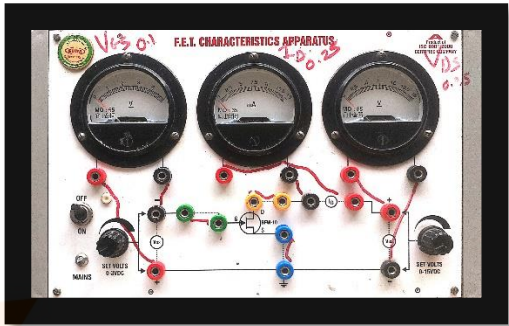
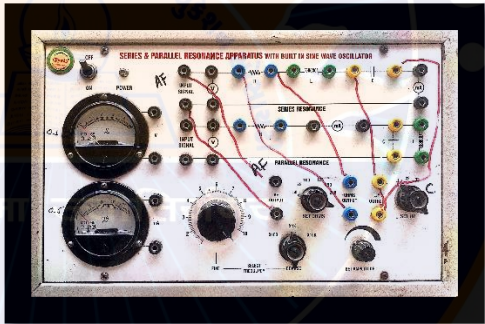
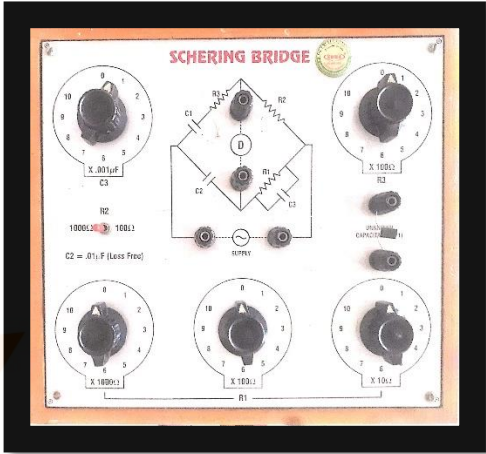
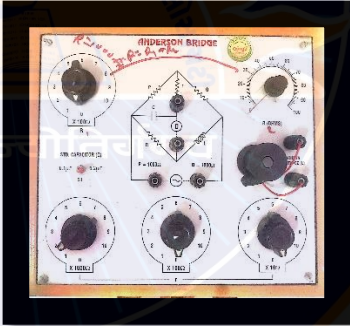
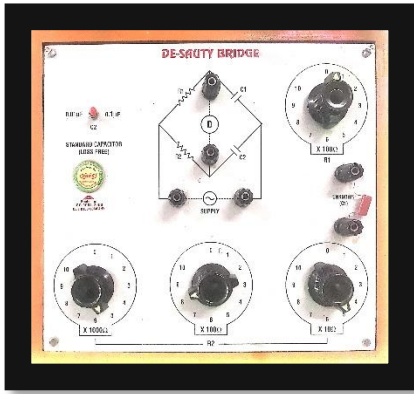
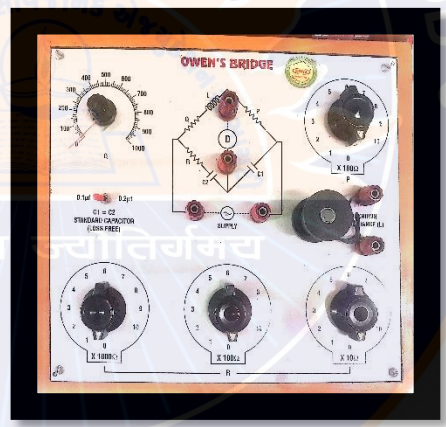
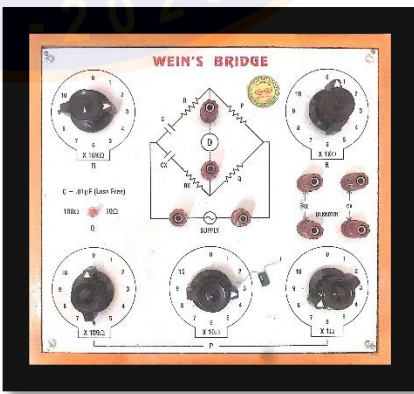


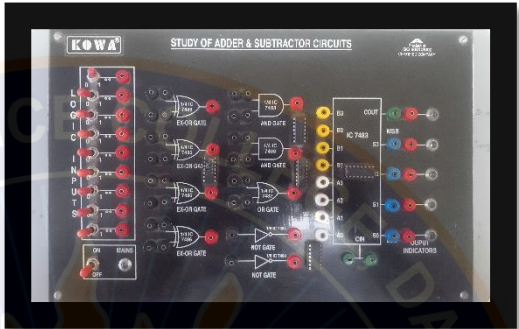
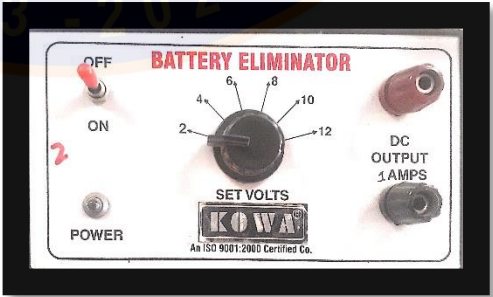
NAVJIVAN SCIENCE COLLEGE, DAHOD
DEPARTMENT OF PHYSICS
(INSTRUMENTATION DETAILS)

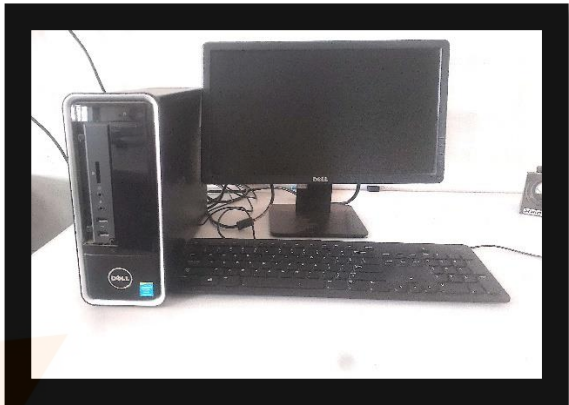
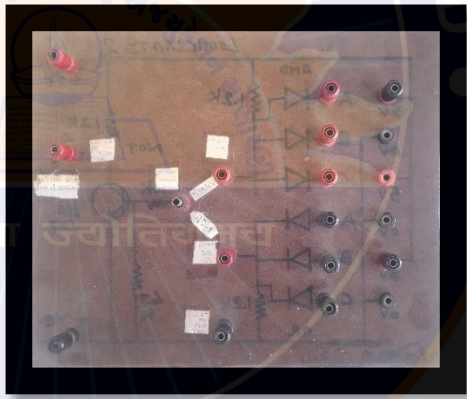
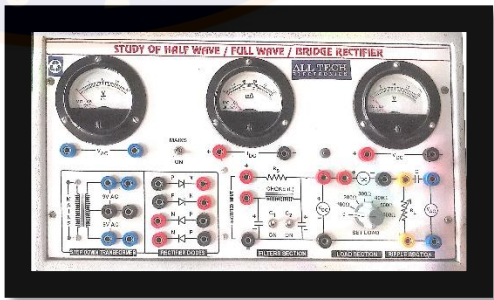
SR. NO.	INSTRUMENT NAME	PICTURE
ELECTRONICS		
1	ZENER DIODE AS A VOLTAGE REGULATOR	
2	GRAY TO BINARY & BINARY TO GRAY CODE CONVERSION	
3	ELECTROMAGNET	

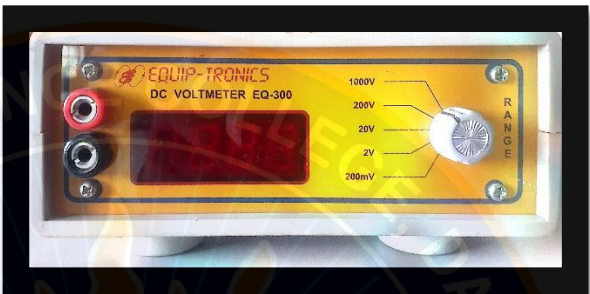
4	F.E.T CHARACTERISTICS APPRATUS	 A photograph of a breadboard circuit for FET characteristics. It features three analog meters: a milliammeter (0-10 mA), a voltmeter (0-30 V), and another voltmeter (0-30 V). The circuit includes a 100V AC source, a 100V 0.5A fuse, a 100V 0.5A switch, and various resistors and capacitors connected to the FET's gate, drain, and source terminals. Handwritten notes in red ink are visible on the top right of the board.
5	S.C.R. CHARACTERISTIC APPRATUS	 A photograph of a breadboard circuit for SCR characteristics. It includes three analog meters: a milliammeter (0-10 mA), a voltmeter (0-20 V), and another voltmeter (0-20 V). The circuit is powered by a 230V AC source and includes a 100V 0.5A fuse, a 100V 0.5A switch, and various resistors and capacitors connected to the SCR's anode, cathode, and gate terminals. The text 'ALL TECH ELECTRONICS' is visible on the top right of the board.
6	SERIES & PARALLEL RESONANCE APPRATUS	 A photograph of a breadboard circuit for series and parallel resonance. It features two analog meters: a milliammeter (0-10 mA) and a voltmeter (0-20 V). The circuit includes a 230V AC source, a 100V 0.5A fuse, a 100V 0.5A switch, and various resistors, capacitors, and inductors connected to the series and parallel resonance circuits. The text 'SERIES & PARALLEL RESONANCE APPRATUS WITH BUILT IN SINE WAVE OSCILLATOR' is visible on the top of the board.
7	THREE TERMINAL VOLTAGE REGULATOR	 A photograph of a breadboard circuit for a three-terminal voltage regulator. It includes two analog meters: a milliammeter (0-10 mA) and a voltmeter (0-20 V). The circuit is powered by a 230V AC source and includes a 100V 0.5A fuse, a 100V 0.5A switch, and various resistors, capacitors, and a three-terminal voltage regulator IC connected to the input, output, and ground terminals. The text 'THREE TERMINAL VOLTAGE REGULATOR' is visible on the top of the board.

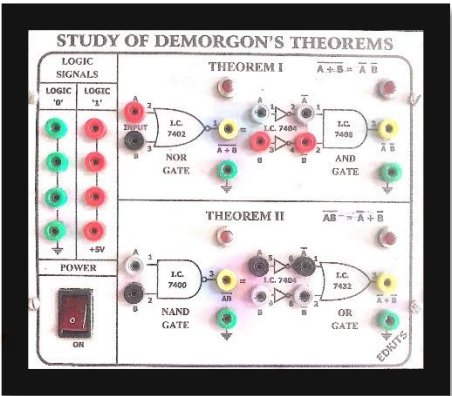
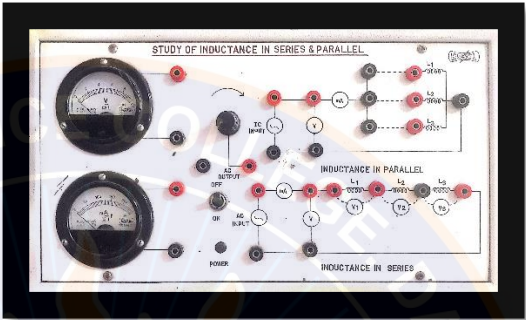
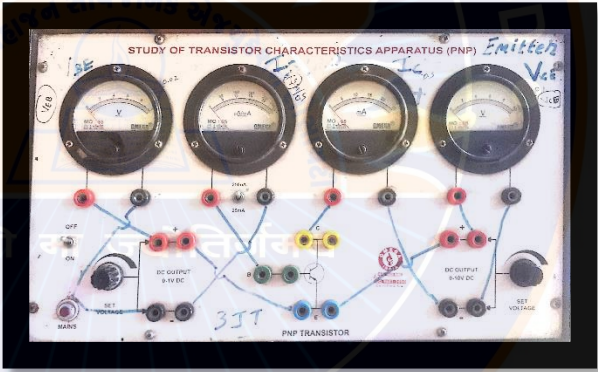
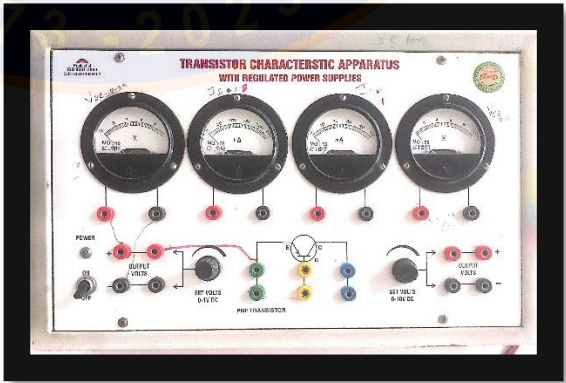
8	SCHERING BRIDGE	 The image shows a Schering Bridge circuit diagram on a white panel. The bridge consists of four arms: the top arm has a variable capacitor C_1 and a fixed capacitor C_3 in parallel; the right arm has a variable resistor R_2 and a fixed resistor R_3 in parallel; the bottom arm has a fixed resistor R_1; and the left arm has a variable capacitor C_2. A central detector D is connected between the two diagonal nodes. Below the diagram, there are six control knobs with scales: two for C_1 (labeled $\times 100 \mu F$ and $\times 1000 \mu F$), one for C_2 (labeled $\times 1000 \mu F$), and three for R_1, R_2, and R_3 (labeled $\times 100 \Omega$, $\times 10 \Omega$, and $\times 1 \Omega$). A central switch is labeled "10000:1 100:1". Text on the panel includes "SCHERING BRIDGE", "C2 = .01% F (Loss Freq)", and "10000:1 100:1".
9	SIGNAL GENERATOR	 The image shows the control panel of a Testronix 72 Signal Generator. It features a large frequency knob on the left with a scale from 1 to 100 kHz. To the right of the knob is a "PWR ON" switch. Further right is a "FREQ. MULTIPLIER" section with a knob set to 100 and a switch for "10K" or "100K". Below this is an "AMPLITUDE" knob with a scale from 1 to 10, and a switch for "3V", "30V", or "300V". On the far right, there are two output jacks labeled "SINE OUTPUT" and "SQUARE OUTPUT", each with a switch for "OFF" or "SYMMETRY". The panel is blue and white with black text.
10	ANDERSON BRIDGE	 The image shows an Anderson Bridge circuit diagram on a white panel. The bridge consists of four arms: the top arm has a variable capacitor C_1 and a fixed capacitor C_3 in parallel; the right arm has a variable resistor R_2 and a fixed resistor R_3 in parallel; the bottom arm has a fixed resistor R_1; and the left arm has a variable capacitor C_2. A central detector D is connected between the two diagonal nodes. Below the diagram, there are six control knobs with scales: two for C_1 (labeled $\times 100 \mu F$ and $\times 1000 \mu F$), one for C_2 (labeled $\times 1000 \mu F$), and three for R_1, R_2, and R_3 (labeled $\times 100 \Omega$, $\times 10 \Omega$, and $\times 1 \Omega$). A central switch is labeled "10000:1 100:1". Text on the panel includes "ANDERSON BRIDGE", "C2 = .01% F (Loss Freq)", and "10000:1 100:1".
11	RAYLEIGH BRIDGE	 The image shows the control panel of a Rayleigh Bridge. It features a large central knob with a scale from 1 to 100. To the left of the knob are two smaller knobs with scales from 1 to 10. To the right of the knob are two more knobs with scales from 1 to 10. Below the central knob is a switch labeled "FROM RAY". The panel is black with white text and knobs.

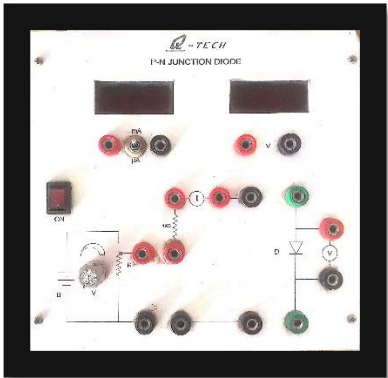
12	DE-SAUGTY BRIDGE	
13	MAXWELL INDUCTION BRIDGE	
14	OWN'S BRIDGE	
15	WEIN'S BRIDGE	

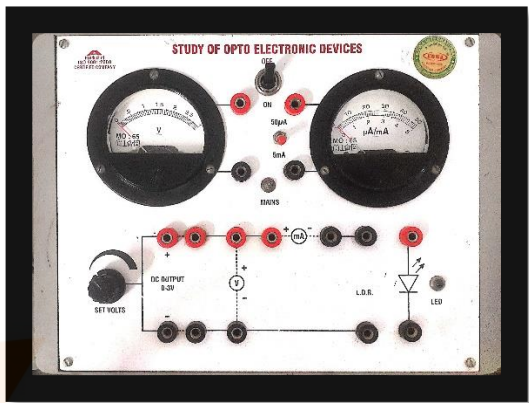
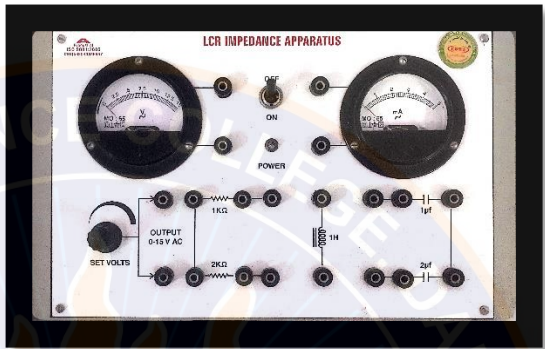
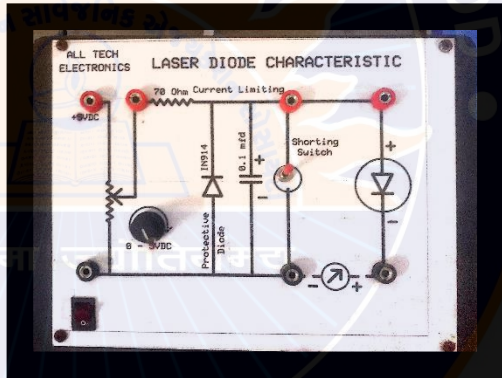
16	PHOTOCELL	 A photograph showing a photocell experiment setup. It includes a black rectangular box (the photocell) mounted on a wooden base. To the left is a small electronic circuit board with various components and wires. To the right is a circular meter with a needle, connected to the circuit by wires. The setup is placed on a light-colored surface.
17	ADDER & SUBTRACTOR	 A photograph of a KOA electronic board titled "STUDY OF ADDER & SUBTRACTOR CIRCUITS". The board is populated with various integrated circuits, including 7410 (NAND), 7401 (NOR), 7404 (inverter), 7400 (NAND), and 7402 (NOR). It features multiple input and output pins, some labeled "EX-OR GATE", "AND GATE", "OR GATE", "NAND GATE", and "NOR GATE". There are also several indicator lights and a power switch.
18	APPARATUS TO STUDY TEMPERATURE DEPENDENCE OF THERMISTOR	 A photograph of an apparatus to study the temperature dependence of a thermistor. The board features a central circuit diagram showing a thermistor connected to a bridge circuit. There are two digital displays at the top, labeled "VDC" and "MADC". A "TEMP. C°" label is on the right. A "VARY TEMPERATURE OF HEATER" label is at the bottom right. The board also has a "V" label and a "VDC" label.
19	BATTERY ELIMINATOR	 A photograph of a KOA battery eliminator. It features a large black rotary switch with numbers 2, 4, 6, 8, 10, and 12. The switch is labeled "SET VOLTS". To the left of the switch is a "POWER" button and a "BATTERY ELIMINATOR" label. To the right is a "DC OUTPUT 1 AMPS" label. The KOA logo and "As ISO 9001:2000 Certified Co." are at the bottom.

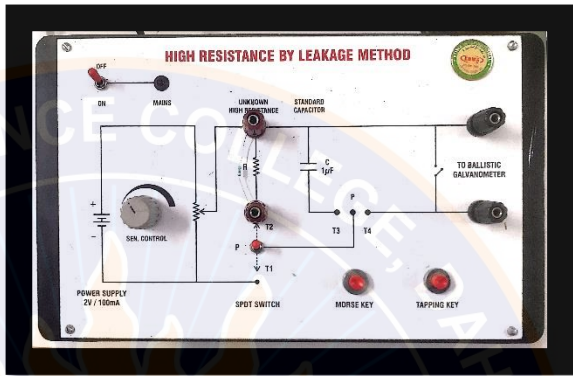
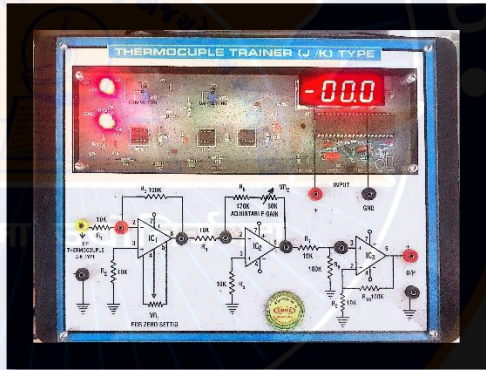
20	COMPUTER DELL	
21	L.D.R. CHARACTERISTICS APPARATUS	
22	LOGIC GATE	
23	STUDY OF HALF WAVE FULL WAVE BRIDGE RECTIFIER	

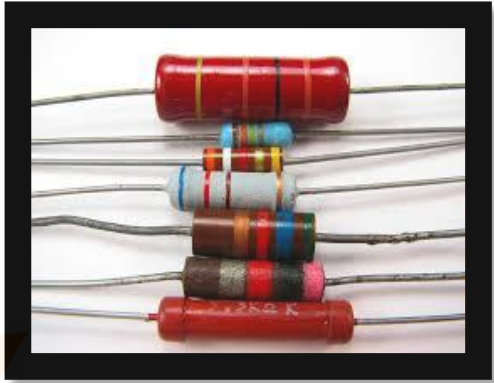
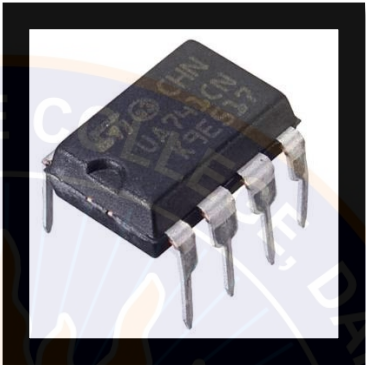
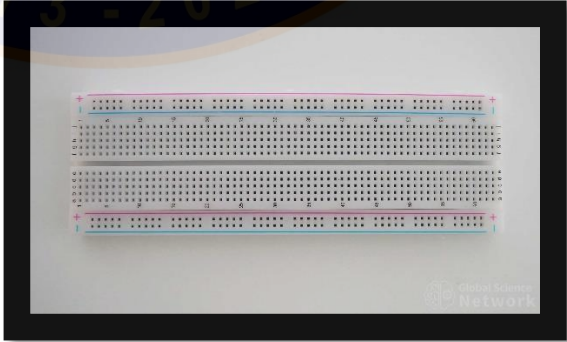
24	AC VOLTMETER EQ-305 DIGITAL	 A yellow rectangular digital AC voltmeter with a black frame. It features a red LCD display showing '5.88'. On the left, there are two green input terminals. On the right, there is a rotary switch with a silver knob and a vertical label 'RANGE'. The switch has five positions: 750V, 200V, 20V, 2V, and 250mV. The text 'EQUIP-TRONICS' and 'AC VOLTMETER EQ-305' is printed at the top.
25	DC VOLTMETER EQ-300 DIGITAL	 A yellow rectangular digital DC voltmeter with a black frame. It features a red LCD display showing '0.00'. On the left, there are two input terminals: a red one on top and a black one on the bottom. On the right, there is a rotary switch with a silver knob and a vertical label 'RANGE'. The switch has five positions: 1000V, 200V, 20V, 2V, and 200mV. The text 'EQUIP-TRONICS' and 'DC VOLTMETER EQ-300' is printed at the top.
26	DIGITAL MULTIMETER	 A handheld digital multimeter with a black face and a silver casing. It has a large LCD screen at the top. Below the screen is a large rotary selector switch with a green and yellow scale. At the bottom, there are two input jacks for test leads, one red and one black. The text 'DT9205A' and 'DATA HOLD' is visible at the top.
27	AC CURRENT METER	 A yellow rectangular digital AC current meter with a black frame. It features a red LCD display showing '0.00'. On the left, there are two green input terminals. On the right, there is a rotary switch with a red knob and a vertical label 'RANGE'. The switch has five positions: 2A, 200mA, 20mA, 2mA, and 200μA. The text 'EQUIP-TRONICS' and 'AC CURRENT METER EQ-311' is printed at the top.

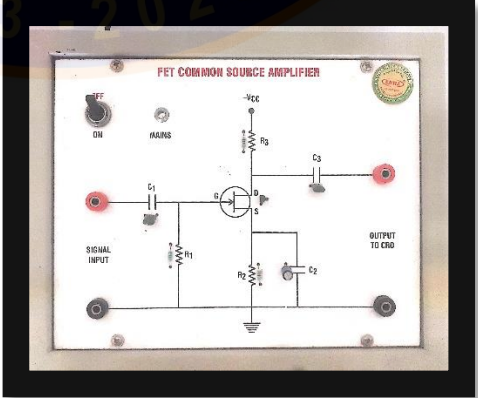
28	STUDY OF DEMORGON'S THEOREMS	
29	STUDY OF INDUCTION IN SERIES & PARALLEL	
30	STUDY OF TRANSISTOR CHARACTERISTICS APPARATUS PNP	
31	TRANSISTORS CHARACTERISTICS APPARATUS WITH REGULATED POWER SUPPLY	

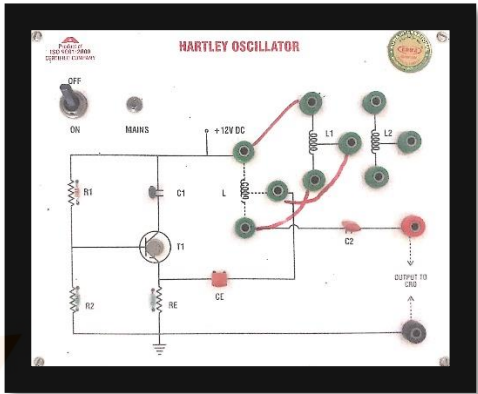
32	P-N JUNCTION DIODE	
33	DECADE CONDENSER BOX	
34	CAPACITANCE METER	
35	LX-101A LUX METER	

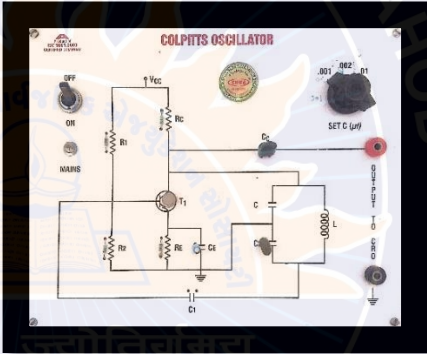
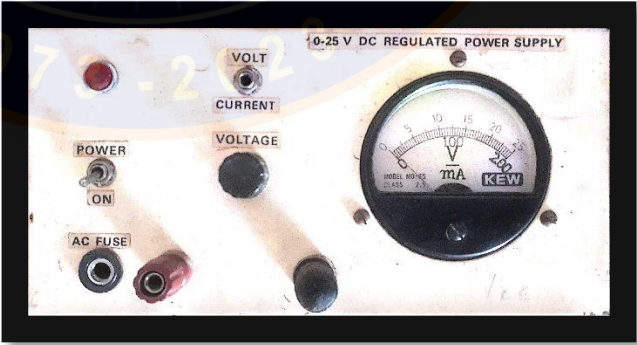
36	STUDY OF OPTO ELECTRONIC DEVICES	
37	LCR IMPEDANCE APPARATUS	
38	LASER DIODE CHARACTERISTICS	
39	TAP KEY	

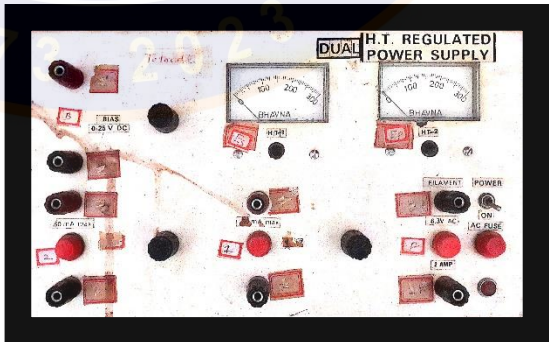
44	SELENIUM PHOTOCELL	
45	HIGH RESISTANCE BY LEAKAGE METHOD	
46	THERMOCOUPLE TRAINER (J K) TYPE	
47	POWER SUPPLY 30V AC	

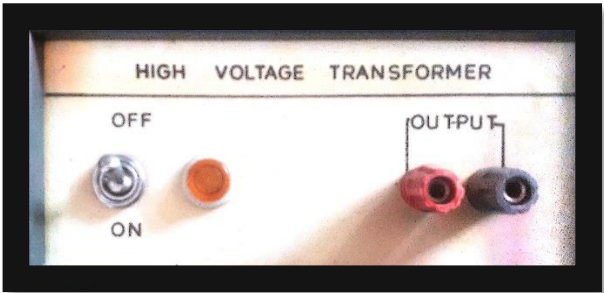
48	RESISTOR	
49	IC 741	
50	CAPACITOR	
51	BREADBOARD	

52	POWER SUPPLY THERMO EMF SETUP	 OMEGA TYPE EM-30 POWER SUPPLY (For e/m bar magnet method) POWER FUSE 250mA OFF ON 250V AC ± 10% AT 50Hz METER 0 10 20 30 40 50 60 70 80 90 100 Y-SHIFT X-SHIFT FOCUS BRILLIANCE ACCELERATING VOLTAGE CR TUBE www.OMEGAELECTRONICS.NET
53	DC MOVING COIL mA 100	 EDM-50 mA 0 20 40 60 80 100 DC MOVING COIL
54	DIGITAL STORAGE OSCILLOSCOPE	 UNI-T UTD2025CL 20MHz 20MHz/s DIGITAL STORAGE OSCILLOSCOPE
55	FET COMMON SOURCE AMPLIFIER	 FET COMMON SOURCE AMPLIFIER OFF ON A.M.S. SIGNAL INPUT OUTPUT TO CRO Components: C_1, R_1, R_2, C_2, C_3, R_G, V_{CC}

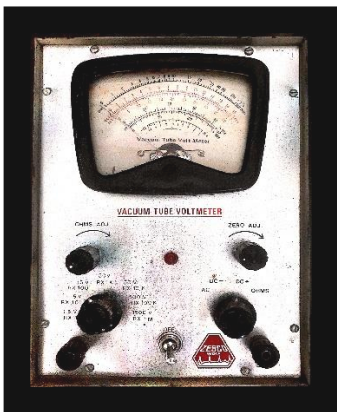
56	HARTLEY OSCILLATOR	
57	DIGITAL FLUX/GAUSS METER	
58	POWER SUPPLY FOR ELECTROMAGNET	
59	CONSTANT CURRENT POWER SUPPLY	

60	UJT CHARACTERISTICS APPARATUS	 A black rectangular box containing three analog meters (V, I _B , I _E) and various electronic components like resistors, capacitors, and a UJT transistor, connected in a circuit for studying its characteristics.
61	AUDIO OSCILLATOR FOR ANDERSON BRIDGE	 A black rectangular box with a 'Mains' switch and a 'Power' indicator. It features an 'Output' section with a red terminal and a black terminal, and a small label with handwritten text.
62	COLPITTS OSCILLATOR	 A black rectangular box with a circuit diagram of a Colpitts oscillator. It includes a variable capacitor (SET C) and various electronic components like resistors, capacitors, and a transistor (T ₁).
63	0-25 V DC REGULATED POWER SUPPLY	 A black rectangular box with a large analog meter (0-25 V) and various controls including a 'POWER' switch, 'VOLT' and 'CURRENT' buttons, and an 'AC FUSE'.

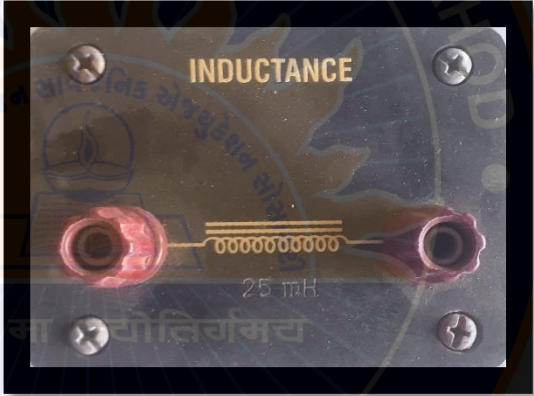
64	DC MOVING COIL mA 100	
65	DECADE RESISTANCE BOX NEW	
66	FOCAL DC REGULATED POWER SUPPLY	
67	H.T. REGULATED POWER SUPPLY	

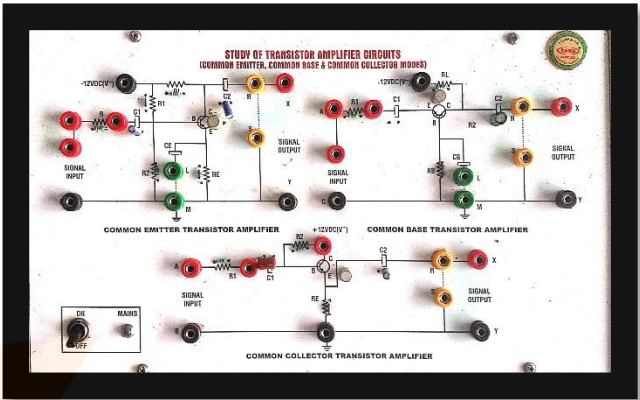
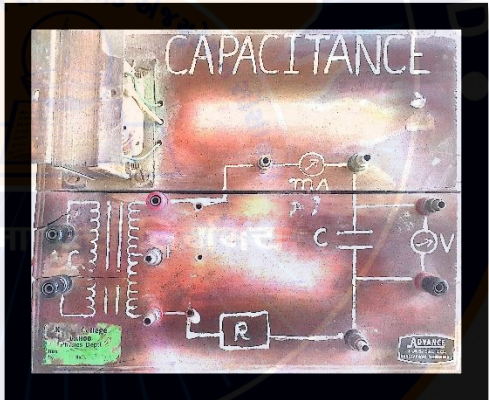
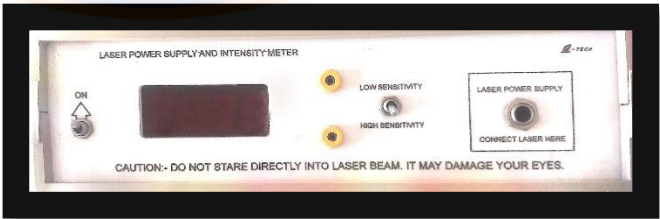
68	HIGH VOLTAGE TRANSFORMER	 A control panel for a high voltage transformer. It features a toggle switch labeled 'OFF' and 'ON', and two output terminals labeled 'OUTPUT' with red and blue sockets.
69	POWER SUPPLY THERMO EMF SETUP	 A power supply unit labeled 'OMEGA TYPE EM-30'. It includes a central analog meter, several control knobs for 'X-SHIFT', 'FOCUS', 'BRILLIANCE', 'Y-SHIFT', 'ACCELERATING VOLTAGE', and 'CR TUBE', and a power switch with a fuse indicator. The text 'e/m setup' is handwritten on the panel.
70	REGULATED POWER SUPPLY 300	 A dark-colored regulated power supply unit. It features two large analog meters on the left and right, and several control knobs and switches labeled 'HT', 'BIAS 0-20 V', 'LT', 'OFF', 'ON', 'BIAS CONTROL', and 'HT CONTROL'.
71	REGULATED POWER SUPPLY TYPE ERP-1	 A regulated power supply unit labeled 'ADVANCE REGULATED POWER SUPPLY TYPE ERP-1'. It includes two analog meters, control knobs for 'BIAS CONTROL' and 'H.T. CONTROL', and a row of output terminals at the bottom labeled 'POWER', '0.2 V 3 AMP A.C.', '- BIAS', 'COM.', and '+ H.T.'.

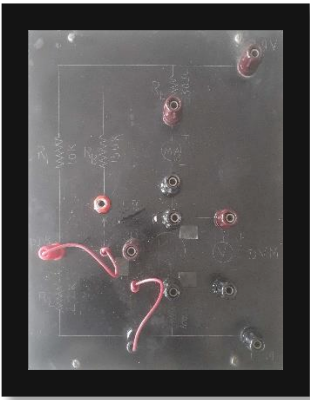
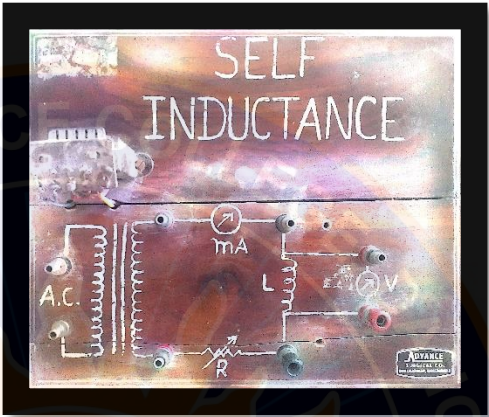
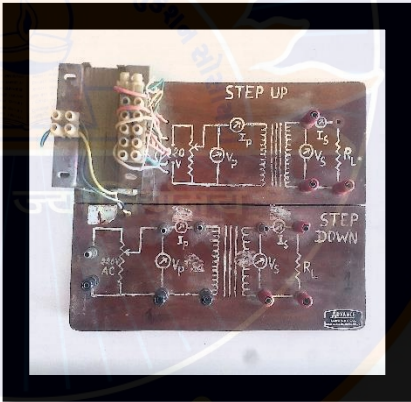
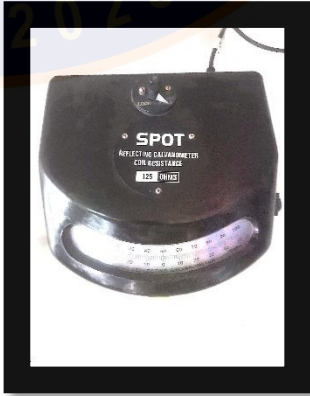
72	SPOT FREQUENCY AUDIO OSCILLATOR	
73	STABILIZED POWER SUPPLY	
74	TRANSISTOR CHARACTERISTICS APPARATUS WITH REGULATED POWER SUPPLY	
75	VACUUM TUBE VOLTMETER 1500	

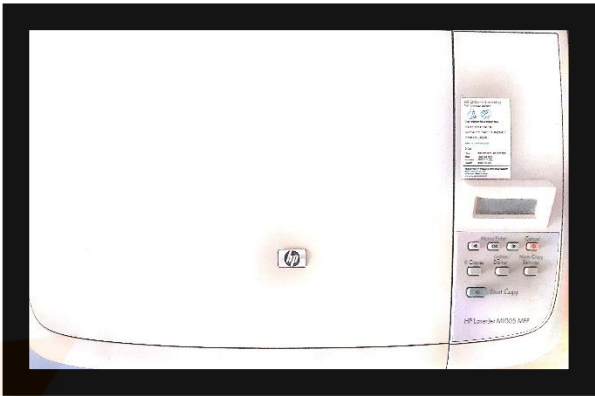
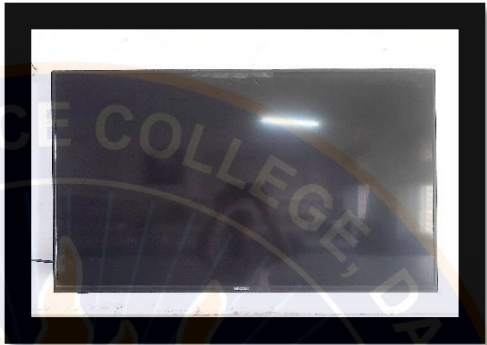
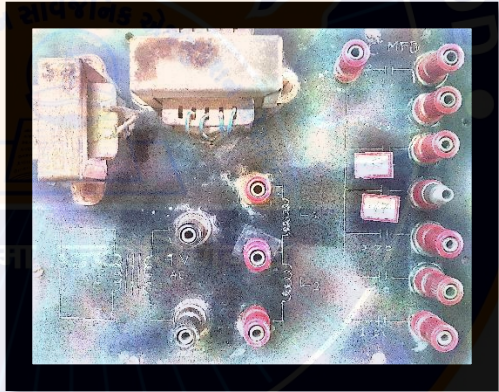
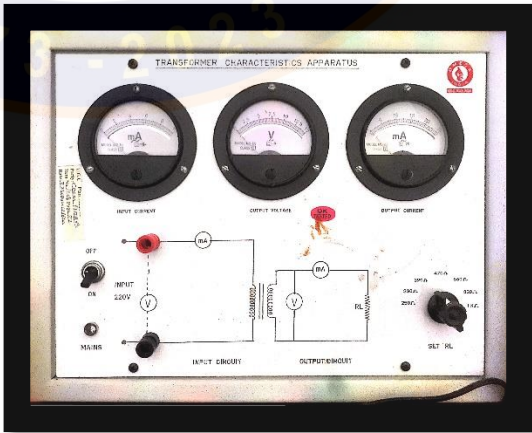
76	VACUUM TUBE VOLTMETER	
77	ELECTRONIC DIGITAL MICROMETER_1_ ELECTRONIC DIGITAL MICROMETER	
78	AC MOVING COIL mA Ac	
79	AC MOVING COIL Vac	

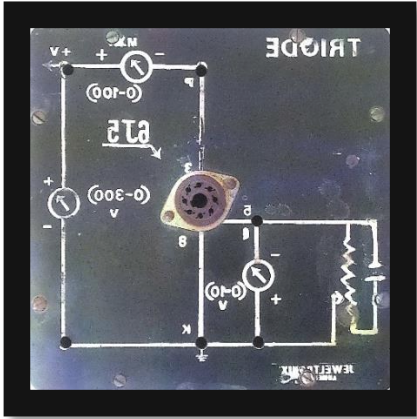
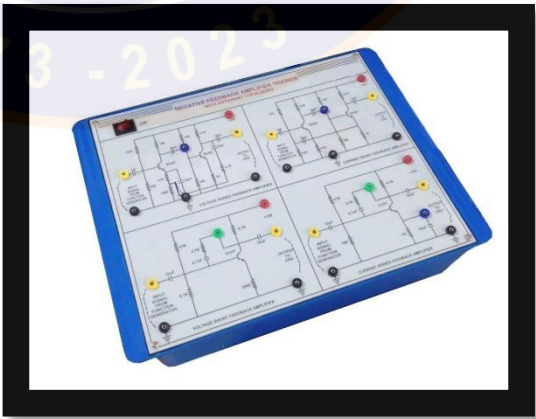
80	DC MOVING COIL V	
81	DIGITAL LCR METER Ohm	
82	DIGITAL IC TESTER 20	
83	DIGITAL MICRO OHM METER	

84	DIGITAL TACHO DT 2001-B	 A black rectangular digital tachometer with a small LCD screen and a push button. The text 'DIGITAL TACHO DT 2001-B' and 'ELECTRONIC AUTOMATION PVT. LTD.' are visible on the front panel.
85	I.C. REGULATED POWER SUPPLY	 A black rectangular power supply unit with two analog meters: an ammeter on the left and a voltmeter on the right. It features a red emergency stop button, a power switch, and various output terminals. The text 'I.C. REGULATED POWER SUPPLY' is printed at the top.
86	INDUCTANCE (25mH)	 A black rectangular inductance component with two large red binding posts on the left and right. The text 'INDUCTANCE' is printed in yellow at the top, and '25 mH' is printed in white at the bottom.
87	PHASE SEQUENCE INDICATOR	 A black rectangular phase sequence indicator with three red indicator lights labeled R, Y, and B. Below the lights are three terminals labeled L1 (R), L2 (S), and L3 (T). It also features two circular arrows indicating clockwise (CW) and counter-clockwise (CCW) rotation. The text 'KUSAM-MECO KM 981 MK-1 PHASE SEQUENCE INDICATOR' is printed at the bottom.

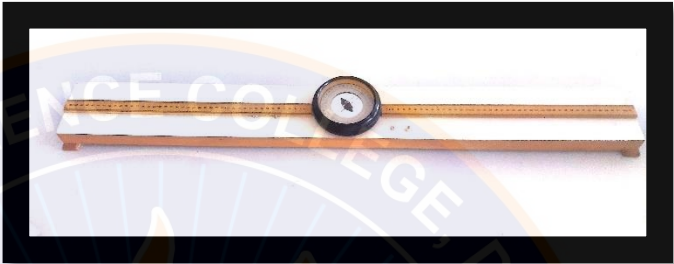
92	STUDY OF TRANSISTOR AMPLIFIER	
93	C.E.MODE	
94	CAPACITANCE	
95	LASER POWER SUPPLY AND INTENSITY METER	

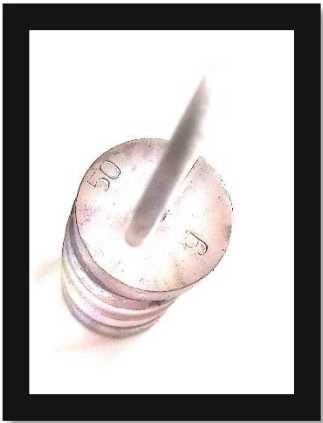
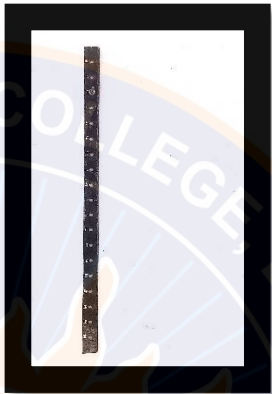
96	PDB	
97	SELF INDUCTANCE	
98	TRANSFORMER	
99	SPOT REFLECTING GALVANOMETER	

100	HP LASERJET M1005 MFP	
101	KODAK TV	
102	CMFD	
103	TRANSFORMER CHARACTERISTICS APPARATUS	

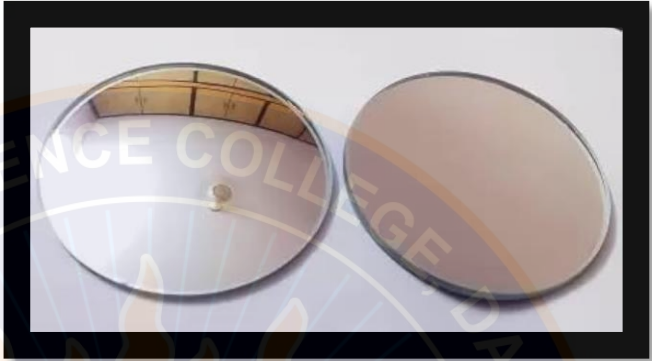
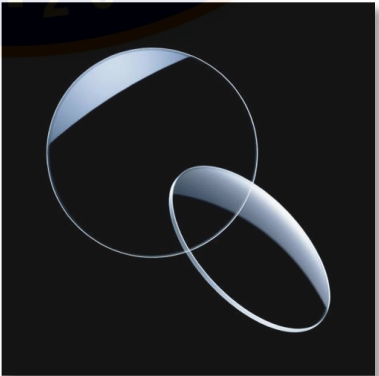
104	TRIODE	
105	Q POINT FOR B.T.T	
106	PATCH CHORD	
107	NEGATIVE FEEDBACK AMPLIFIER	

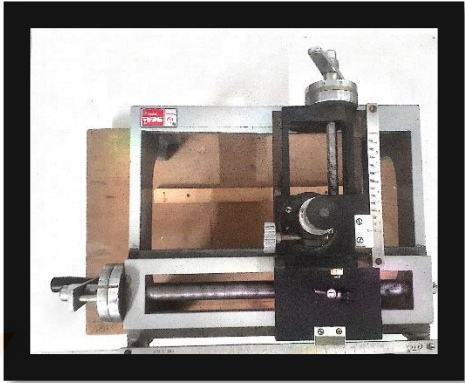
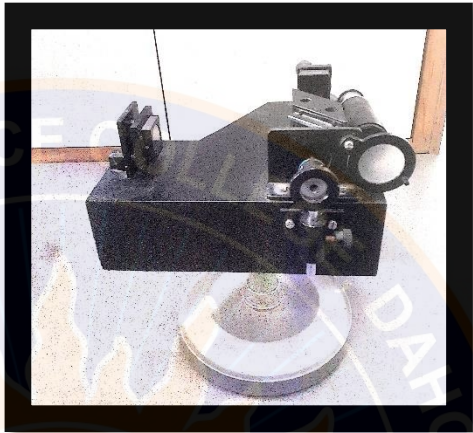
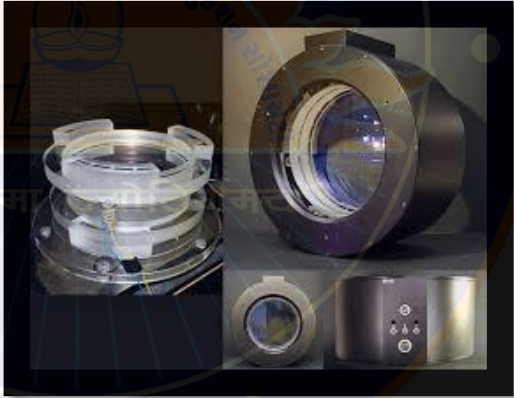
MECHANICS

1	MICROSCREW KELIPAR 20MM	
2	MAGNETIC NIDAL	
3	VERNIER KELIPAR DIGITAL	
4	WISE	

5	WEIGHT SET	
6	BAR PENDULUM	
7	g'BY KATER'S PENDULUM	
8	TULA	

9	Y BY KOENING METHOD	
OPTICS		
1	BALLISTIC GALVANOMETER COIL RES 100 OHMS	
2	SPECTROMETER	
3	CONCAVE-MIRROR	

4	TELESCOPE SMALL	
5	CONVEX MIRROR	
6	PRISM	
7	LENS	

8	LINE SPECTROMETER	
9	MICHELSON INTERFEROMETER	
10	FEBRY PEROT ETALON	
11	NEWTON'S RING SETUP	

12	TELESCOPE	
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