

Faculty of Technology

B. Tech. Handloom and Textile Technology

(R 2021) Semester – II

Course Code: BE3272		
Course Title: Basic Electrical, Electronics and Instrumentation Engineering Laboratory		
Sl. No.	Description of Equipment	Required numbers (for batch of 30 students)
1.	Verification of ohms and Kirchhoff's Laws 1. DC Regulated Power supply (0 - 30 V variable) 2. Bread Board 3. Resistors 4. Multimeter 5. Connecting wires	1 1 As per Circuit diagram 1 As Required
2.	Three Phase Power Measurement 1. Three Phase Variable Load, 2. Ammeters 0-10 A, MI, 3. Wattmeters 0-5 A, 300V, 4. Voltmeter 0-300v,MI 5. Connecting wires	1 2 2 1 As Required
3.	Load test on DC Shunt Motor. 1. Ammeter MC (0-20A) 2. Voltmeter MC (0-300)V 3. Rheostat 7.5 Ω , 10 A 4. Tachometer 5. Field Rheostat 175 Ω , 1.5 A 6. Connecting wires 7. DC Shunt Motor	1 1 1 1 1 As Required 1
4.	Load test on Self Excited DC Generator 1. Voltmeter(0- 300V) 2. Ammeter (0-30 A), (0-2A) 3. Voltmeter (0-30V) 4. Rheostat 175 Ω , 250 Ω 5. Tachometer 6. Connecting Wires 7. DC Shunt Motor coupled with DC shunt Generator	1 1 1 1 1 As Required 1
5.	Load test on Single phase Transformer 1. Ammeter (0-30) A, (0-5) A 2. Voltmeter (0-150)V, (0-300)V 3. Wattmeter – 300V, 5A, UPF 4. Autotransformer 5. Single phase Transformer 6. Connecting Wires	1 1 1 1 1 As Required
6.	Load Test on Induction Motor 1. Ammeter MI (0-20A) 2. Voltmeter MI (0-300)V 3. Wattmeter – 300V, 30 A 4. Tachometer – Digital	1 1 1 1

	5. Connecting Wires 6. Single phase Induction motor	As Required 1
7.	Characteristics of PN and Zener Diodes 1. PN Diode (BY127, OA79), Zener diode (6.8V, 1A) 2. Resistor 1 K Ω , 100 Ω 3. Bread Board 4. DC Regulated Power supply (0 - 30 V variable) 5. Multimeter 6. Connecting wires	1 1 1 1 1 As Required
8.	Characteristics of BJT 1. Transistor (No-BC548) 2. Resistors- 1k Ω , 470K Ω , 1M Ω 3. Bread Board DC Regulated Power supply (0 - 30 V variable) 5. Multimeter 6. Connecting wires Characteristics of SCR 1. D C Power Supply (0-128 V), (0-32V), 2. Voltmeter (0-100V) 3. SCR TYN604 4. Digital multimeter 5. Ammeters (0-100mA, 0-25mA, 0-1mA) 6. Resistors 1K Ω , 1K Ω 7. Bread board 8. Connecting Wires Characteristics of MOSFET 1. MOSFET (2N7000) 2. Bread board 3. resistor (1K Ω , 100K Ω) 4. DC power supply (0-30V) 5. Multimeter 6. Connecting Wires	1 1 1 1 1 As Required 1 1 1 1 1 1 As Required 1 1 1 1 1 As Required
9.	Design and analysis of Half wave and Full Wave rectifiers 1. Diodes (Si-1N4007) – 4 2. Resistor 1K Ω 3. Capacitor 100 μ F 4. Digital Multimeter 5. CRO 6. Transformer (6-0-6)V 7. Bread Board 8. Connecting Wires	1 1 1 1 1 1 1 As Required
10.	Measurement of displacement of LVDT 1. LVDT Kit 2. Multimeter	1 1

Faculty of Technology
B. Tech. Handloom and Textile Technology
(R 2021) Semester – III
TT3361 Pre-Spinning Laboratory

Sl.No.	Description of Equipment	Required members (for batch of 30 students)
1.	Ginning machine	1
2.	Blowroom line	1
3.	Carding machine	1
4.	Drawframe	1
5.	Comber lap preparatory machines	1 set
6.	Comber	1
7.	Roving frame	1
	(Note: Commercial or Miniature models of above machines can be installed)	

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(R 2021) Semester – III
HT3311 Handloom Weaving Laboratory

Sl.No.	Description of Equipment	Required members (for batch of 30 students)
1.	Charka	10
2.	Warping machine	1
3.	Handlooms	10
4.	Pirns	60
5.	Double flanged bobbins	30
6.	Shuttles	20

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(R 2021) Semester – IV
TT3461 Fabric Manufacture Laboratory

Sl.No.	Description of Equipment	Required members (for batch of 30 students)
1.	Loom with tappet shedding	1
2.	Loom with dobby shedding	1
3.	Loom with jacquard	1
4.	Loom with dropbox	1
5.	Loom with 5, 7 wheel take-up, weft replenishment	1

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(R 2021) Semester – IV
TT3462 Fabric Structure Analysis Laboratory

Sl.No.	Description of Equipment	Required members (for batch of 30 students)
1.	Lab Desks	20
2.	Beesley's balance	5
3.	Crimp tester	5
4.	Electronic balance	2
5.	GSM Cutter	2
6.	Thread counting glass	30
7.	Magnifying glass	5

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(R 2021) Semester – V
TT3581 Testing Of Textile Materials Laboratory

Sl.No.	Description of Equipment	Required members (for batch of 30 students)
1.	Baer Sorter	1
2.	Fibre Bundle strength tester	1
3.	Fibre Fineness tester	1
4.	Trash Analyzer	1
5.	Projection Microscope	1
6.	Wrap Reel	1
7.	Wrap Block	1
8.	Yarn Twist Tester	1
9.	Single Yarn Strength Tester	1
10.	Bundle yarn strength tester	1
11.	Ballistic Tester	1
12.	Yarn Unevenness tester	1
13.	Weighing balance	1
14.	Yarn appearance Board Winder	1
15.	Yarn appearance Board (Standards) - 1 No.	1
16.	Fabric tensile strength tester	1
17.	Fabric tearing strength tester	1
18.	Fabric Thickness Tester	1
19.	Fabric Stiffness Tester	1
20.	Fabric Crease Recovery Tester	1
21.	Fabric Bursting Strength Tester	1
22.	Fabric Abrasion Resistance Tester	1
23.	Fabric Pilling resistance tester	1
24.	Fabric air permeability tester	1
25.	Fabric Drape meter	1
26.	GSM cutter and weighing balance –	1
27.	Lander-o-meter	1
28.	Crock meter	1

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(R 2021) Semester – V
HT3511 Textile Design And Cad Laboratory

Sl.No.	Description of Equipment	Required members (for batch of 30 students)
1.	Textile designing software	1 No. with 30 user licence
2.	Designing software -	1 No. with 30 user licence
3.	Computer.	30
4.	Scanner	1
5.	Digitizer.	2
6.	Colour printer	3

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(R 2021) Semester – VI
TT3661 Textile Chemical Processing Laboratory

Sl.No.	Description of Equipment	Required members (for batch of 30 students)
1.	Stainless vats (500 ml each)	30
2.	Water bath	5
3.	Thermometers	5
4.	HHP Beaker dyeing machine	1
5.	Electronic weighing balance	1
6.	Stirrer	1
7.	Steam ager	1
8.	Pilot curing chamber	1
9.	Hot air oven	1
10.	Printing table	1
11.	Blocks	10
12.	Printing Screens	10
13.	Laundro meter	1
14.	Crock meter	1
15.	Spectrophotometer	1
16.	Colour matching cabinet	1
17.	Grey scales	1 set