

**Faculty of Technology**  
**B. Tech. Fashion Technology**  
**(R 2021) Semester – II**

<b>Course Code: BE3272</b>		
<b>Course Title: Basic Electrical, Electronics and Instrumentation Engineering Laboratory</b>		
<b>Sl. No.</b>	<b>Description of Equipment</b>	<b>Required numbers (for batch of 30 students)</b>
<b>1.</b>	<b>Verification of ohms and Kirchoff's Laws</b> 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
<b>2.</b>	<b>Three Phase Power Measurement</b> 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
<b>3.</b>	<b>Load test on DC Shunt Motor.</b> 1. Ammeter MC (0-20A) 2. Voltmeter MC (0-300)V 3. Rheostat 7.5 $\Omega$ , 10 A 4. Tachometer 5. Field Rheostat 175 $\Omega$ , 1.5 A 6. Connecting wires 7. DC Shunt Motor	1 1 1 1 1 As Required 1
<b>4.</b>	<b>Load test on Self Excited DC Generator</b> 1. Voltmeter(0- 300V) 2. Ammeter (0-30 A), (0-2A) 3. Voltmeter (0-30V) 4. Rheostat 175 $\Omega$ , 250 $\Omega$ 5. Tachometer 6. Connecting Wires 7. DC Shunt Motor coupled with DC shunt Generator	1 1 1 1 1 As Required 1
<b>5.</b>	<b>Load test on Single phase Transformer</b> 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
<b>6.</b>	<b>Load Test on Induction Motor</b> 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
<b>7.</b>	<b>Characteristics of PN and Zener Diodes</b> 1. PN Diode (BY127, OA79), Zener diode (6.8V, 1A) 2. Resistor 1 K $\Omega$ , 100 $\Omega$ 3. Bread Board 4. DC Regulated Power supply (0 - 30 V variable) 5. Multimeter 6. Connecting wires	1 1 1 1 1 As Required
<b>8.</b>	<b>Characteristics of BJT</b> 1. Transistor (No-BC548) 2. Resistors- 1k $\Omega$ , 470K $\Omega$ , 1M $\Omega$ 3. Bread Board DC Regulated Power supply (0 - 30 V variable) 5. Multimeter 6. Connecting wires  <b>Characteristics of SCR</b> 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 $\Omega$ , 1K $\Omega$ 7. Bread board 8. Connecting Wires  <b>Characteristics of MOSFET</b> 1. MOSFET (2N7000) 2. Bread board 3. resistor (1K $\Omega$ , 100K $\Omega$ ) 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
<b>9.</b>	<b>Design and analysis of Half wave and Full Wave rectifiers</b> 1. Diodes (Si-1N4007) – 4 2. Resistor 1K $\Omega$ 3. Capacitor 100 $\mu$ 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
<b>10.</b>	<b>Measurement of displacement of LVDT</b> 1. LVDT Kit 2. Multimeter	1 1

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**(R 2021) Semester – III**  
**FT3311 Fabric Structure Lab**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Pick glass	30
2.	GSM Cutter	3
3.	Beesley Balance	2
4.	Crimp Tester	2
5.	Electronic balance	1
6.	Thread counting glass	30
7.	Magnifying glass	5

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**FT3312 Fashion Illustration Laboratory**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Drawing tables	15

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**FT3411 Computer Aided Fashion Designing**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Image editing software and sketching software	15 licences
2.	Computer	15
3.	Color Printer	1

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**(R 2021) Semester – IV**

**FT3412 basics of pattern making and garment construction laboratory**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Working surface – pattern making / cutting table (polished or laminated top)	5
2.	Rulers	15
3.	Tailor's square	15
4.	Curve rules	15
5.	Pattern notcher, tracing wheel, awl	5
6.	Measuring tape	30
7.	Dress forms (Full) – Men, Women and children	1 in each
8.	Dress forms (Half) – Men and Women	1 in each
9.	High speed industrial sewing machines - Single needle lock stitch machine	15

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**(R 2021) Semester – IV**  
**FT3413 Textile Chemical Processing Laboratory**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Stainless vats (500 ml)	30
2.	Water bath	2
3.	Thermometer	5
4.	Stirrer	1
5.	Steam ager	1
6.	Pilot padding mangle	1
7.	HTHP Beaker dyeing machine	1
8.	Pilot curing chamber	1
9.	Laundrometer	1
10.	Crockmeter	1
11.	Printing table	1
12.	Blocks	10
13.	Printing screens	10
14.	Spectrophotometer (Optional)	1
15.	Colour matching cabinet	1
16.	Grey scale	1

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**(R 2021) Semester – V**

**FT3512 Computer Aided Garment Designing Laboratory**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Computer	15
2.	pattern making and Marker planning software	15 licenses
3.	Pattern Digitizer	1
4.	Printer / plotter (above 42")	1



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**(R 2021) Semester – VI**

**FT3611 Garment Construction Laboratory II**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Single needle lock stitch machine	– 15 Nos.
2.	Flat lock machine with elastic attachment	– 1 No.
3.	Feed off the arm machine	– 1 No.
4.	Over lock machine	2 Nos.
5.	Button holing & button attachment machine	1 No.
6.	Cylinder bed Sewing machines	1 No. Preferable
7.	Collar & Cuff recessing machine	1 No. Preferable

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**FT3612 Design Collection / Portfolio**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Drawing tables	15 No

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**(R 2021) Semester – VI**  
**Enterprise Resource Planning in Apparel Industry**

<b>Sl.No.</b>	<b>Description of Equipment</b>	<b>Required members (for batch of 30 students)</b>
1.	Computer	15 No
2.	ERP software	15 licenses