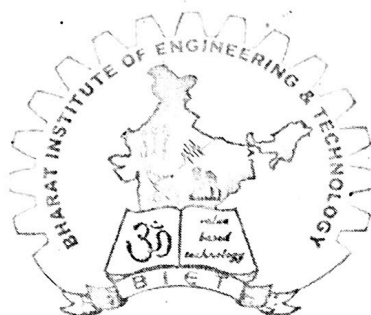


B.Ele (sec-A)

# BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

SIVARAM VIHAR, GHATAKESWAR HILLS  
MOHADA, BERHAMPUR (GM.)



## STUDENT'S ATTENDANCE REGISTER

Time					
Day		11.30 - 12.25		09.50 - 10.40	
Mon		Basic Electrical			
Tue					
Wed			Basic Electrical		
Thu					
Fri					
Sat					

Year/ Session : 2023 (winter)

Semester from Date: 16/08/2023 To Date: 11/12/2023

Semester & Branch

Mechanical (1<sup>st</sup> Sem. - Sec "A")

Subject with Code

Basic Electrical (Th. 4ca)

Name of the Faculty Member

Dr. K. Srinivas

No of Weeks:

No of Days per Week Class Allotted : 02

# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
AUGUST 2023	1	16/08/23	<p><u>Ch: 1: Fundamentals:</u></p> <p><u>1.1:</u> Concept of current flow.</p> <p><u>1.2:</u> Concept of source &amp; Load.</p> <p><u>1.3:</u> State Ohm's law &amp; Concept of Resistance.</p>
	2	21/08/23	<u>1.4:</u> Relation of $V, P$ & $R$ in Series Circuit.
		23/08/23	<u>1.5:</u> Relation of $V, P$ & $R$ in Parallel circuit.
	3	28/08/23	<p><u>1.6:</u> Division of current in parallel circuit.</p> <p><u>1.7:</u> Effect of power in series &amp; parallel circuit.</p>
SEPT 2023	4	04/09/23	<p><u>1.8:</u> Kirchhoff's Law.</p> <p><u>1.9:</u> Simple problems on Kirchhoff's Law.</p>

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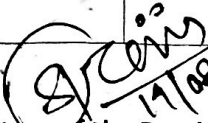
Seen for *[Signature]* 18/8/23  
 Signature of the Principal/Course Co-ordinator/HOD: *[Signature]* 11/08/23

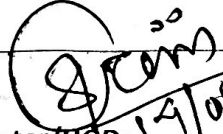
# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
SEPTEMBER 2023	5	11/09/23	<u>Ch: 2: A.C. Theory:</u> <u>2.1:</u> Generation of alternating e.m.f. <u>2.2:</u> Difference between D.C. & A.C.
		13/09/23	<u>2.3:</u> Define Amplitude, Instantaneous Value, Cycle, Time period, frequency, Phase angle, Phase difference.
	6	18/09/23	<u>2.4:</u> State & Explain RMS value, Average value, Amplitude factor & Form factor & simple problems
	7	25/09/23	<u>2.5:</u> Represent AC values in Phasor diagrams.
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	Signature of the Principal/Course Co-ordinator/HOD: <span style="font-size: 1.5em;">AFCin</span> 14/08/23		

# B.I.E.T., COURSE PLAN


Month	Week	Class Day	Theory/Practical Topic
SEPT 2023	7	27/09/23	<p><u>2.6</u>: A.C Through pure Resistance, inductance &amp; Capacitance.</p> <p>27/09</p> <p><u>2.7</u>: A.C through RL, RC &amp; RLC Series Circuit.</p>
	8	04/10/23	<p><u>2.8</u>: Simple problems on RL, RC &amp; RLC Series Circuits.</p> <p>4/10</p>
OCTOBER 2023	9	09/10/23	<p><u>2.9</u>: Concept of power &amp; power factor.</p> <p>09/10</p> <p><u>2.10</u>: Impedance triangle and Power triangle.</p>

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# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
OCTOBER 2023	9	11/10/23	<p>Ch:3: <u>Generation of Electrical Power:</u></p> <p>3.1: Give elementary idea on generation of electricity from</p> <p>→ Hydro electric power plant</p>
	10	16/10/23 18/10/23	<p>→ Thermal power plant</p> <p>→ Nuclear power plant.</p>

  
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# B.I.E.T., COURSE PLAN

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7

Month	Week	Class Day	Theory/Practical Topic		
OCTOBER 2023	11	30/10/23	<p><u>Ch:4</u>: <u>Conversion of Electrical Energy</u>:</p> <p><u>4.1</u>: Introduction of DC Machine</p> <p><u>4.2</u>: Main parts of DC Machine</p> <p><u>4.3</u>: Classification of DC Generator.</p>		
			12	01/11/23	<p><u>4.4</u>: Classification of DC Motor</p> <p><u>4.5</u>: Uses of different types of DC generator &amp; motors.</p>
				06/11/23	<p><u>4.6</u>: Types &amp; uses of 1<math>\phi</math> Induction motor.</p>
NOVEMBER 2023	13	08/11/23	<p><u>4.7</u>: Concept of KEMEN</p>		
		13/11/23	<p><u>4.8</u>: Different types of lamps. Its construction &amp; principle (filament, fluorescent &amp; LED bulb)</p>		
		15/11/23	<p><u>4.9</u>: Star rating of home appliances (Terminology, Energy efficiency, Star rating concept)</p>		

  
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Month	Week	Class Day	Theory/Practical Topic
NOVEMBER 2023	14	20/11/23	<p><u>Ch: 5: Wiring &amp; Power Billing</u></p> <p><u>S.1:</u> Types of wiring for domestic installations.</p> <p><u>S.2:</u> Layout of household electrical wiring (single line diagram) showing all the important components in the system.</p> <p><u>S.3:</u> List out the basic protective devices used in household wiring.</p>
		22/11/23	
		29/11/23	<p><u>S.4:</u> Calculate energy consumed in a small electrical installation.</p>

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# B.I.E.T., COURSE PLAN

3

DECEMBER 2023

Month	Week	Class Day	Theory/Practical Topic
	16	04/12/23	<p><u>Ch:6: Measuring Instruments:</u></p> <p><u>6.1:</u> Introduction to measuring instruments.</p> <p><u>6.2:</u> <sup>04/12</sup> Torques in instruments.</p> <p><u>6.3:</u> Different uses of PMMC type of instruments.                      → Ammeter                      → Voltmeter</p> <p><u>6.4:</u> <sup>06/12</sup> Different uses of MI type of instruments.                      → Ammeter                      → Voltmeter</p>
	17	11/12/23	<p><u>6.5:</u> Draw the connection diagram of A.C./D.C Ammeter, Voltmeter, energy meter and wattmeter.                      (Single Phase Only)</p> <p><sup>11/12</sup></p>

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