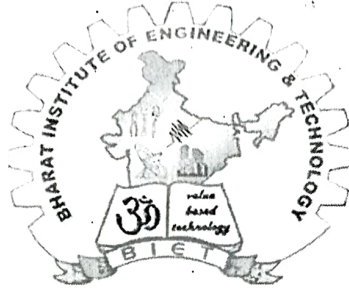


BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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



STUDENT'S ATTENDANCE REGISTER

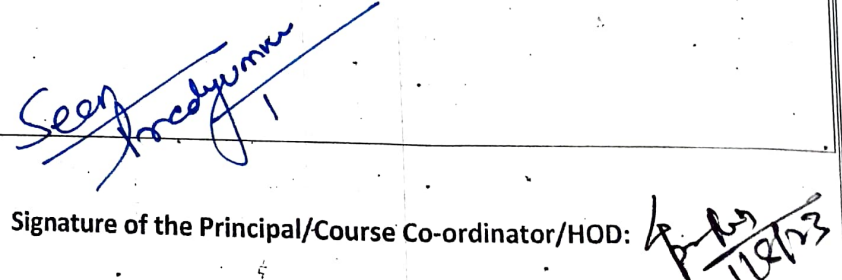
Time Day	9:55 to 10:45	10:45 to 11:35			
Mon	✓				
Tue					
Wed		✓			
Thu					
Fri	✓				
Sat		✓			

Year/ Session : 2023 (winter)	Semester from Date: 01/08/2023 To Date : 30/11/2023
Semester & Branch	3 rd Sem & ETC
Subject with Code	TH.2 , circuit Theory
Name of the Faculty Member	Binayaka Kumar Nayak
No of Weeks:	No of Days per Week Class Allotted : 4

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
Aug	1st		1. <u>CIRCUIT ELEMENTS & ENERGY SOURCES</u>
		2/8/23	1.1 circuit elements (Resistance, Inductance, Capacitance), scope of Network Analysis and Synthesis.
	2nd	4/8/23	1.2 voltage division & current division, Energy Sources.
		5/8/23	1.3 Electric charge, electric current, Electrical energy, Electrical Potential, R-L-C Parameters, Active and Passive Elements.
		7/8/23	1.4 Energy Sources, current & voltage sources and their transformation & mutual Inductance.
		9/8/23	1.5 Star-Delta transformation.
0	11/8/23		


Signature of the Faculty: 

Signature of the Principal/Course Co-ordinator/HOD: 

B.I.E.T., COURSE PLAN


Month	Week	Class Day	Theory/Practical Topic	nth
			<u>2. NETWORK THEOREMS</u>	
	3 rd	12/8/23 14/8/23	2.1 Nodal & mesh Analysis of electrical circuits with simple problem.	
	4 th	16/8/23 18/8/23 19/8/23 21/8/23 23/8/23 25/8/23 26/8/23 28/8/23	2.2 Thevenin's Theorem, Norton's Theorem maximum power transfer Theorem, Super position Theorem millman Theorem Reciprocity Theorem State ment Explanation & Application.	
Sept	1 st	1/9/23 2/9/23	2.3 Solve numerical problem of above.	

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Signature of the Principal/Course Co-ordinator/HOD: 

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
	2 nd	4/9/23 8/9/23	3. Power Relation in AC circuits and transient Response of <u>Passive Circuits.</u> 3.1 Definition of frequency cycle, time period, Amplitude Average value, Rms value Instantaneous Power & Form factor, Apparent Power Reactive Power, power triangle of AC wave
	3 rd	9/9/23 11/9/23	3.2 phasor representation of Alternating quantities.
		13/9/23 15/9/23	3.3 Single phase AC circuits - Behaviors of AC through pure Resistor, Inductor & Capacitor.
	4 th	16/9/23 18/9/23	3.4 DC Transient - Behaviors of R-L, R-L-C & R-C Series circuit & draw the phasor diagram & voltage triangle.
		22/9/23 23/9/23	3.5 Define time constant of the above circuit
	5 th	25/9/23 27/9/23	3.6 Solve numerical problems of above CRT.

Signature of the Faculty: 

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B.I.E.T., COURSE PLAN


Month	Week	Class Day	Theory/Practical Topic	Month
OCT	1 st	30/9/23	4. Resonance & Coupled Circuits	
		4/10/23	4.1 Introduction to resonance circuits & Resonance tuned circuit	
	2 nd	6/10/23	4.2 Series & Parallel resonance	
		7/10/23	4.3 Expression for Series resonance, condition for Resonance, frequency of Resonance, Impedance, current, voltage, Power, Q factor and Power factor of Resonance. Bandwidth in term of Q.	
		9/10/23		
		11/10/23		
		13/10/23		
		16/10/23	4.4 Parallel Resonance (RLC & RLC) & derive the Expression.	
	3 rd	18/10/23		
		30/10/23	4.5 Comparisons of series and Parallel resonance & Application.	
NOV	1 st	3/11/23	4.6 Simple problem of above circuit.	

Signature of the Faculty: *B. Singh*

Signature of the Principal/Course Co-ordinator/HOD: *P. J. Singh*
11/11/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			<p><u>5. Laplace Transform and its Applications</u></p>
	2 nd	4/11/23	5.1 Laplace Transformation, Analysis and derive the equations for circuit Parameters of step response of R-L, R-C & R-L-C
		6/11/23	
	3 rd	8/11/23	5.2 Analysis and derive the equations for circuit Parameters of impulse response of R-L, R-C, R-L-C
		10/11/23	
		11/11/23	
		13/11/23	
			<p><u>6. Two Port Network Analysis</u></p>
		15/11/23	6.1 Network elements, Ports in network. (One port, two port)
		17/11/23	6.2 network configurations (T & pie)
		18/11/23	6.3 open circuit (Z-Parameters) Short circuit (Y-Parameters) Parameters - Calculate open R

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Signature of the Principal/Course Co-ordinator/HOD:  1/11/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic	Month
	4 th	20/11/23	6.4 h-Parameters (hybrid Parameters) Representation 6.5 Define T-network & Pie-network	
		22/11/23	7. <u>Filters & Attenuators</u> 7.1 ideal & practical filters and its Applications, cut off frequency, Passband and Stop band	
		24/11/23	7.2 classify filters- low pass high pass, band pass band stop filters & Study their characteristics.	
		25/11/23	7.3 Butterworth filter design.	

Signature of the Faculty: *Banyan*

Signature of the Principal/Course Co-ordinator/HOD: *Banyan*
11/11/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
	5 th	29/11/23	7.4 Attenuation, and Gain Bel, Decibel & nepers and Their relations. 7.5 Attenuators & its Application classification - T-TYPE & PI-TYPE Attenuators.

Signature of the Faculty:

Bangaru

Signature of the Principal/Course Co-ordinator/HOD:

B. Bangaru
24/11/23