Nagarjuna College of Engineering & Technology

Autonomous Institute Under VTU, Bengaluru

CALENDAR OF EVENTS FOR THE ACADEMIC YEAR 2022-2023

FOR

B.E - II, IV, & VI SEMESTERS

Vision:	Leadership and Excellence in Education.
Mission:	To fulfill the vision by imparting total quality education replete with the philosophy of blending human values and academic professionalism.

S.No	Events	Date and Day
1	Registration for BE-II, IV & VI Semesters(Even Sem.)	Thursday, 18th May 2023 to Monday, 22nd May 2023
2	Commencement of Classes for BE- II, IV & VI Semesters.	Thursday, 18th May 2023
3	Display of Attendance Status by the HOD's	Monday,12th June 2023
4	Last Date for Dropping of Courses only for IV & VI Semesters	Wednesday, 21st June 2023
5	Continuous Internal Evaluation (CIE)-I	Saturday, 24th June 2023 to Wednesday, 28th June 2023
6	Student Feedback-I	Monday 10th July 2023 to Thursday, 13th July 2023
7	Display of Attendance Status by the HOD's	Monday, 24th July 2023
8	Continuous Internal Evaluation (CIE)-II	Monday, 07th Aug 2023 to Thursday, 10th Aug 2023
9	Student Feedback-II	Wednesday, 23rd Aug 2023 to Friday, 25th Aug 2023
10	Last date for Withdrawal of Courses only for IV & VI Semesters.	Thursday, 24th Aug 2023
11	PTM-I(Parent Teacher Meeting-I)	Saturday, 26th Aug 2023
12	Continuous Internal Evaluation (CIE)-III	Monday, 28th Aug 2023 to Thursday, 31st Aug 2023
13	Commencement and End of Lab CIE for Integrated Courses(IC) /Practical	Friday, 01st Sept 2023 to Thursday, 07th Sept 2023
14	Sending the list of students having NSA(Not Satisfying Attendance) & NSSR (Not Satisfying Sessional Requirement) by the HODs to the Principal.	Thursday, 07th Sept 2023
15	Last working day of EVEN Semester.	Thursday, 07th Sept 2023
16	Commencement of SE Practical Examinations.	Monday, 11th Sept 2023
17	Commencement of Semester End (SE) Examinations.	Monday, 19th Sept 2023
18	Commencement of MakeUp SE Examinations.	Monday, 09th Oct 2023
19	Commencement of Odd Semester.	Monday, 16th Oct 2023

Note: All the Second Saturday & Fourth Saturday is Faculty/Student Activity(Afternoon Session).

Additional Events: Induction Program-II/Workshops/Value Added Courses/Webinars/Seminars will be conducted by the Departments.

Academic Calendar may be modified based on guidelines/directions issued in the future by VTU/MHRD/UGC/AICTE/State Government.

Copy to: Director /Associate Director(IQAC)/COE/HOD-E&C/MECH/CSE/ISE/CIVIL /CS-AI&ML/CS-DS/ PHY/CHEM/MAT/P&T/CA/OS /HR/ACCOUNTS/LIB/SPORTS/COUNSELLING

Total Number of Working Days(WD)- 86 days(M-16: T-15: W-16 : TH-16: F-16: S-07)

CO-ORDINATOR

PRINCIPAL

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution Under VTU)

Department of Electronics & Communication Engineering	Format No.	ACD 02
Subject Allotment	Issue No.	3
The Tentative Allotment of subjects for faculty to handle in the Even semester of Academic Year 2022 - 23 (Even Semester)is given below.	Issue Date	22.03.2012
	Rev No	0

Subject Details

II Semester

Course Code	Course Name	Faculty Name	Section	Signature
22ESC243	Introduction to Electronics Engineering	Dr. Nagesh K N	A	
		Mrs. Rashmi G P	D & E	
		Mr. Nanda Kishore C V	B & C	
22EEE23	Element of Electrical Engineering	Ms. Sunitha M	H & I	

IV Semester

21MAT41	Applied Calculus and Probability Distribution	Maths Dept.	A	
		Maths Dept.	B	
		Maths Dept.	C	
21ECI42	Digital Signal Processing	Dr. Ravikumar M G	A	
		Mr. Shashikiran R	B	
		Mr.Sreenivaulu K N	C	
21ECI43	Circuits & Controls	Dr. Vinay	A	
		Mr. Sunil T	B	
		Mrs. Bhargavi K V	C	
21ECT44	Communication Theory	Dr. Mahesh Shastri	A	
		Dr. Vivek Singh	B	
		Mrs. Deepthi Prakash	C	
21BET45	Biology For Engineers	Dr. Navya Rani	A	
		Dr. Navya Rani	B	
		Dr. Navya Rani	C	
21ECL46	Communication Laboratory I	Dr. Mahesh Shastri	A	
		Dr. Vivek Singh	B	
		Mrs. Deepthi Prakash	C	
21KSK47	Samskrutika Kannada	Mrs. Bhargavi K V	A	
21KBK47	Balake Kannada	Mrs. Naghma Anjum	B	
21EC48X	Ability Enhancement Course-IV	Mr. Manjunath M N	A	
		Mr. Manjunath M N	B	
		Ms. Prathima N	C	
21UHV49	Universal Human Values	Mr. Sunil Kumar B S	A	
		Mrs. Rani B A	B	
		Ms. Prathima N	C	
21INT49	Inter/Intra Institutional Internship	Dr. Vivek Singh	A	
		Mrs. Rani B A	B	
		Mrs. Budige Sreevidya	C	

	NAGARJUNA COLLEGE OF ENGINEERING &TECHNOLOGY DEPARTMENT OF ELECTRONICS & COMMUNICATION INDIVIDUAL FACULTY TIME TABLE	Format No.	ACD 05
		Issue No.	03
		Issue Date	22.03.2012
		Rev No	00

Faculty Name	Mrs. Bhargavi K V	Faculty Qualification	B.E, M. Tech
Dept.	E & C	Experience	10.6 Years
Academic Year	2022-2023	Faculty Code	BKV

Sub.: Circuits & Controls (21ECI43) - Sec. C
Samskrutika Kannada : (21KSK47)

Lab.: Digital Signal Processing -21ECI42 Lab Sec-IV'A'
Circuits & Controls- 21ECI43 Lab Sec- IV Sec-C

Period ▶ Time ▶ Day ▼	1 09.00-09.55 AM	2 09.55-10.50 AM	Tea Break (10.50-11.00)	3 11.00-11.55 AM	LUNCH BREAK 11.55-12.50)	4 12.50-1.40 PM	5 1.40- 2.30 PM	6 2.30-3.20 PM	7 3.20-4.1 PM
Monday									
Tuesday						21ECI43			
Wednesday						←21ECI42 Lab →			
Thursday				22KSK27/ 22KBK27		21ECI43			
Friday				21KBK47/ 21KSK47		21ECI43	←21ECI43 Lab→		
Saturday				21ECI43 (Revision)		Activity for Student / Faculty			

Department Assistant

HOD

Department of Electronics and Communication
Nagarjuna College of Engineering and Technology
Venkatagiri kote, Devanahalli TQ, Bengaluru-562164

SEMESTER – IV

Circuits and Controls			
Course Code	**21ECI43 (IC)**	**CIE Marks**	**50**
Teaching Hours/Week(L: T:P:S) (3:0:2:0)	**Credits (3:0:1:0)**	**SEE Marks**	**50**
Total Hours of Pedagogy	**40 hours Theory + 13 Lab slots**	**Total Marks**	**100**
Credits	**04**	**Exam Hours**	**03**

Course objectives:

This course will enable students to:

1. Understand mesh and nodal techniques to solve an electrical network and solve different problems related to electrical circuits using Network Theorems.
2. Gain knowledge of graph theory and analyze the circuit parameters of two port network to solve network problems.
3. Understand basics of control systems and design mathematical models using block diagram reduction etc.
4. Apply Time domain analysis for the second-order systems.
5. Evaluate the stability of a given transfer functions using Root-Locus concepts and Compute the frequency response assessment for relative stability using Bode plots.

Teaching-Learning Process (General Instructions)

These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes.

1. Lecture method (L) does not mean only traditional lecture method, but different type of teaching methods may be adopted to develop the outcomes.
2. Show Video/animation films to explain the different concepts of Linear Algebra & Signal Processing.
3. Encourage collaborative (Group) Learning in the class.
4. Ask at least three HOTS (Higher order Thinking) questions in the class, which promotes critical thinking.
5. Adopt Problem Based Learning (PBL), which fosters students' Analytical skills, develop thinking skills such as the ability to evaluate, generalize, and analyze information rather than simply recall it.
6. Topics will be introduced in a multiple representation.
7. Show the different ways to solve the same problem and encourage the students to come up with their own creative ways to solve them.
8. Discuss how every concept can be applied to the real world - and when that's possible, it helps improve the students' understanding.
9. Adopt Flipped class technique by sharing the materials / Sample Videos prior to the class and have discussions on that topic in the succeeding classes.
10. Give Programming Assignments.

Module-1

Basic concepts and network theorems: Types of Sources, Loop analysis, Nodal analysis with independent DC and AC Excitations. (Text book 1: 2.3, 4.1, 4.2, 4.3, 4.4, 10.6)

Network Theorems: Super position theorem, Thevenin's theorem and Norton's Theorem (Reference book 2: 9.2, 9.4, 9.5, 9.7)

08 Hours

Module-2

Network Topology: Graph of a network, Concept of tree and co-tree, incidence matrix, tie-set, tie-set and cut-set schedules. (Reference book 2: Page No. 373-438)

Two port networks: Short- circuit Admittance parameters, Open- circuit Impedance parameters, Transmission parameters.(Reference book 1: 11.1, 11.2, 11.3, 11.4, 11.5)

08 Hours

Module-3

Analysis of Electrical Systems:

Types of control systems, effect of feedback systems, differential equation of electrical systems, Introduction to block

diagrams, transfer functions. (Text book 2: Chapter 1.1, 2.2, 2.4, 2.5, 2.6)

08 Hours

Module-4

Time Response analysis: Time response of first order systems. Time response of second ordersystems, time response specifications of second order systems, Routh stability criterion.(Textbook 2: Chapter 5.3, 5.4)

08 Hours

Module-5

Frequency Domain analysis and stability: Correlation between time and frequency response and Bode plots. (Text book 2: 8.1, 8.2, 8.4)

State Variable Analysis: Introduction to state variable analysis: Concepts of state, state variable and state models. State model for Linear continuous –Time systems, solution of state equations. (Textbook 2: 12.2, 12.3, 12.6)

08 Hours

Teaching-Learning Process for all modules	**Chalk and Talk, Power point presentation, flip teaching, YouTube videos**

PRACTICAL COMPONENTS

Sl. No	**Experiments**
	HARDWARE EXPERIMENTS
1	Verification of Superposition theorem
2	Verification of Thevenin's theorem
3	Verification of Norton's theorem
	SOFTWARE EXPERIMENTS using MATLab Tool
4	Determination of time response specification of a second order Under damped System, fordifferent damping factors.
5	Determination of frequency response of a second order System
6	Determination of frequency response of a lead lag compensator
7	Using Suitable simulation package study of speed control of DC motor using i) Armature control ii) Field control
	Demonstration Experiments (For CIE only, not for SEE)
8	Using suitable simulation package, obtain the time response from state model of a system.
9	Implementation of PI, PD Controllers.
10	Implement a PID Controller and hence realize an Error Detector.

Course Outcomes

At the end of the course the student will be able to:

1. Analyze and solve Electric circuit by applying loop analysis, Nodal analysis and applying network Theorems.
2. Illustrate the circuit using network topology and evaluate two port parameters of a network to solve electric networks.
3. Deduce transfer function of a given physical system, from differential equation representation or Block Diagram representation and SFG representation.
4. Calculate time response specifications and analyze the stability of the system.
5. Analyze the effect of gain on system behavior using root loci and perform frequency response Analysis and find the stability of the system.

Assessment Details (both CIE and SEE)

	Component		**Weightage (%)**	
CIE's	CIE 1 5th week	20	60	Average of 3 tests for 20 marks
	CIE 2 10th week	20		

	CIE 3 15th week	20		
AAT's	AAT-1 10th week		10	
	Lab Test	30	Reduced to 10	
	Lab Record	20	10	

Continuous Internal Evaluation Total Marks: 100. Reduced to 50 Marks

Semester End Examination (SEE) Total Marks: 100. Reduced to 50 Marks

Suggested Learning Resources:

Text Books:

1. Engineering circuit analysis, William H Hayt, Jr, Jack E Kemmerly, Steven M Durbin, Mc Graw Hill Education, Indian Edition 8e, ISBN 978-1259098635.
2. Control Systems Engineering, I J Nagrath, M. Gopal, New age international Publishers, Fifth edition, ISBN 978-9353165727.

Reference Books:

1. Network Analysis, M E Van Valkenburg, Pearson, 3e, ISBN-10 :8122434096.
2. Networks and Systems, D Roy Choudhury, New age international Publishers, second edition, ISBN-10 : 9788122427677

E-Resources:

1. https://nptel.ac.in/courses/108106098
2. https://nptel.ac.in/courses/108102042

CO- PO Mapping:

POS / COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C211.1	3	3	3	3	2	-	-	-	-	-	-	-	2	-	-
C211.2	3	3	3	2		-	-	-	-	-	-	-	2	-	-
C211.3	3	3	3	3	3	-	-	-	-	-	-	-	2	-	-
C211.4	3	3	3	3	3	-	-	-	-	-	-	-	2	-	-
C211.5	3	3	3	3	3	-	-	-	-	-	-	-	2	-	-

Dept of Electronics & Communication Engg
Nagarjuna College of Engg. & Technolgy
Venkatagirikote Post. Bangalore-562164

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY	**NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY** NBA Accredited *NAAC Accredited with "A+" grade (An ISO 9001 – 2008 Certified Institution) Affiliated to Visvesvaraya Technological University (VTU) Recognized by Govt. of Karnataka & Approved by A.I.C.T.E. New Delhi **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**	DEPARTMENT OF ECE NCET

COURSE PLAN

(To be submitted before commencement of semester)

Course Title: Circuits and Controls	**Course Code**: 22ECI43
Course Credit: 4	**Semester:** 4th
Course Teacher's: Dr. Vinay N A, Mr. Sunil T, Mrs. Bhargavi	**Academic Year:** 2022-23
Lab. Instructor: NA	**Date of Commencement of Class:** 18/05/2023

SUBJECT DESCRIPTION:

The course begins with description with circuit elements, sources. Understanding of various interesting network theorems applied to solve linear, time invariant network problems efficiently in time and s-domain. Steady and transient solution of network problems with various sources including impulse source. Representing a circuit in s-domain (Laplace domain).Two-port networks. Graph, tree of networks and use them to solve large network problems using matrices. Control Systems is the study of the analysis and regulation of the output behaviors of dynamical systems subject to input signals. This Course provides the basic knowledge Modeling, analysis, block diagram representations of a system, stability analysis using Polar and Bode plots.

PREREQUISITES:

1. Basic Electronics
2. Laplace Transforms

LECTURE PLAN:

Topic	Topic Details	Number of Lectures	Prediction	Unit/Chapter Reference	Percentage of Module coverage
Module-I Basic concepts and network theorems	Types of Sources	1	**Week 1**	T1 2.3	**20%**
	Nodal analysis with independent DC Excitations	2		T1 4.1	
	Nodal analysis with independent AC Excitations	3		T1 4.2	
	Loop analysis with independent DC Excitations	4	**Week 2**	T1 4.3	
	Loop analysis with independent AC Excitations	5		T1 4.4, 10.6	
	Super position theorem	6	**Week 3**	R2 7.2	
	Thevenin's theorem	7		R2 7.4	
	Norton's Theorem	8		R2 7.5, 9.7	
	Cumulative Coverage				**20%**
Module-II Network Topology and Two port networks	Graph of a network	9	**Week 4**	R2 3.2	**20%**
	Concept of tree and co-tree	10		R2 3.3	
	Incidence matrix	11		R2 3.4	
	Tie-set schedules	12	**Week 5**	R2 3.6	
	Cut- set schedules	13		R2 3.5	
	Short- circuit Admittance parameters	14	**Week 6**	R1 13.2	
	Open- circuit Impedance parameters	15		T1 13.5	
	Transmission parameters	16		T1 13.11	
	Cumulative Coverage				**40%**
AAT-1		**17**	**Week 7**		
Module-III	Types of control systems	18	**Week 7**	T2 1.1	**20%**
	Effect of feedback	19		T2 2.1	

Analysis of Electrical Systems	systems				
	Differential equation of electrical systems	20	**Week 8**	T2 2.2	
	Transfer functions	21		T2 2.4	
	Introduction to block diagrams	22	**Week 9**	T2 2.5	
	Cumulative Coverage				**60%**
Module-IV Time Response analysis	Time response of first order systems	23	**Week 10**	T2 5.3	**20%**
	Derivation of first order system response	24			
	Problems on first order system	25			
	Time response specifications of second order systems	26	**Week 11**	T2 5.4	
	Derivation of second order system response	27			
	Problems on second order system	28			
	Routh stability criterion	29	**Week 12**	T2 5.5	
	Problems on Routh stability criterion	30			
	Cumulative Coverage				**80%**
AAT-1		**31**	**Week 13**		
Module-V Frequency Domain analysis and stability	Correlation between time and frequency response-Polar plots	**32**	**Week 14**	T2 8.2	**20%**
	Bode plots	**35**		T2 8.3	
	Problems on Bode plots	**36**		T2 8.3	
	Introduction to state variable analysis:	**37**	**Week 15**	T1 8.4	
	Concepts of state, state variable and state models.	**38**		T1 8.4	
	State model for	**39**			

	Linear continuous –Time systems and solution of state equations			T1 8.4	
	Cumulative Coverage				**100%**

TEXTBOOKS AND REFERENCE BOOKS:

Book Type	Code	Title & Author	Publication Information		
			Edition	Publisher	Year
Text Books	T1	Engineering circuit analysis, William H Hayt, Jr, Jack E Kemmerly, Steven M Durbin	8th	Mc Graw Hill Education	2012
	T2	Control Systems Engineering, I J Nagrath, M. Gopal	5th	New age international Publishers	2009
Reference Books	R1	Network Analysis, M E Van Valkenburg	3rd	Pearson	2000
	R2	Networks and Systems, D Roy Choudhury	2nd	New age international Publishers	2005

COURSE OUTCOMES:

At the end of the course the student will be able to:

CO1	Analyze and solve Electric circuit by applying loop analysis, Nodal analysis and applying network Theorems
CO2	Illustrate the circuit using network topology and evaluate two port parameters of a network to solve electric networks.
CO3	Deduce transfer function of a given physical system, from differential equation representation or Block Diagram representation and SFG representation
CO4	Calculate time response specifications and analyze the stability of the system.
CO5	Analyze the effect of gain on system behavior using root loci and perform frequency response Analysis and find the stability of the system.

CO-PO MAPPING:

POS / COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C211.1	3	3	3	3	2	-	-	-	-	-	-	-
C211.2	3	3	3	2		-	-	-	-	-	-	-
C211.3	3	3	3	3	3	-	-	-	-	-	-	-

C211.4	3	3	3	3	3	-	-	-	-	-	-	-
C211.5	3	3	3	3	3	-	-	-	-	-	-	-

EVALUATION SCHEME:

Component		**Weightage (%)**		
CIE's	CIE 1 5th week	20	60	(Scaled down to 30 marks) 30 marks
	CIE 2 10th week	20		
	CIE 3 15th week	20		
AAT's	AAT1 (Quiz)	20	40	(Scaled down to 20 marks) 20 marks
	AAT2 (Surprise test)	20		
Continuous Internal Evaluation Total Marks: 100. Reduced to 50 Marks The minimum passing mark for the CIE is 40% of the maximum marks (20 marks out of 50)				
Semester End Examination (SEE) Total Marks: 100. Reduced to 50 Marks The minimum passing mark for the SEE is 35% of the maximum marks (18 marks out of 50)				

Signature of the Course Co-Ordinator

Signature of the HOD

Dept of Electronics & Communication Engg
Nagarjuna College of Engg. & Technolgy
Venkatagirikote Post, Bangalore-562164

Date:

Note:

1. The Course plan is an attempt to ensure **continuous improvement** in the TLP of the course.
2. The proposed Course Plan is submitted to **DAC** before the commencement of the semester.
3. At the end of the semester, the faculty shall submit the **actual implemented plan**.
4. Calendar of Events included.

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Monthly Attendance Report

Semester: Semester 4 **Class** : Section C **Date:** 18-May-2023 to 08-Sep-2023 **Attendance filter** 100 % **Code** : 21ECI43 **Subject Type:** Theory **Batch** : Batch 1 **Subject** : CIRCUITS & CONTROLS

Name of Staff Members : BHARGAVI KV

USN	Students Name	18	19	23	25	26	29	30	31	1	6	8	9	10	20	20	21	22	22	23	4	6	10	11	12	13	14	18	20	21	27	28	1	3	11	12	17	18	19	22	23	24	Total		Attn%
																																											E	A	
1NC21EC084	SAI CHARAN TEJA M	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	41	36	88
1NC21EC085	SAIFULLA	P	P	P	A	A	P	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC086	SANDHU SHASHIDHAR	A	A	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC087	SANGEETHA M	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	41	36	88
1NC21EC088	SHASHANK K S	P	P	P	P	A	P	P	A	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC089	SHASHANTH RAJU K N	P	P	P	P	P	A	P	A	P	P	P	P	A	A	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC090	SHRAVANTHI G	P	P	P	P	A	P	A	P	P	P	P	A	A	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC091	SHREYAS B J	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC092	SHREYASWINI S	P	P	P	P	A	P	P	P	P	A	P	P	A	A	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	40	98
1NC21EC093	SHYARATH A B	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC094	SINCHANA LOKESH	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	40	98
1NC21EC095	SMITHA D	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	36	88
1NC21EC096	SMITHA S G	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	41	35	85
1NC21EC097	SNEHA C S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	41	35	85
1NC21EC098	SNEHA R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	41	100
1NC21EC099	SREE RAKSHA M	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	41	37	90
1NC21EC100	SRI SHANTH T V	A	A	A	A	P	P	P	A	A	P	P	A	A	P	P	A	P	A	A	A	A	A	A	A	A	A	A	A	A	A	A	P	A	A	A	A	A	A	A	A	P	41	35	85
1NC21EC101	SRIJA B S	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	10	24
1NC21EC102	SUDHANVA NAVANEETH P B	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC103	SUFIYA S	A	A	A	P	P	P	A	P	P	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	41	37	90
1NC21EC104	SURABHI K N	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC105	THANUJA S M	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	A	P	P	P	A	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	41	35	85
1NC21EC106	TRIVED A H	P	P	P	A	P	A	P	P	P	P	P	P	A	A	A	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	41	35	85
1NC21EC107	VAMSHI KRISHNA V	P	P	P	A	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC108	VARSHA S	P	P	P	P	P	P	P	P	A	A	P	P	A	P	P	A	P	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC109	VARSHINI C P	P	P	P	P	P	P	P	P	A	A	P	P	A	P	P	A	A	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC110	VARUN A S	P	P	P	P	A	P	P	A	P	P	P	P	A	A	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC111	VENKATADRI T	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC112	VENKATANARAYANA M V	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	39	95
1NC21EC113	VIDYASHREE G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	40	98
1NC21EC114	VIJAYA RAGHAVENDRA	A	A	A	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	A	P	P	P	P	P	41	37	90
1NC21EC115	VINAY VENKATACHALA BHAT	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC116	VINAYAK	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	A	A	P	P	41	36	88
1NC21EC117	VISHWAS B	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	A	A	P	P	P	P	P	P	P	P	41	36	88
1NC21EC118	YASHAS P T	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	41	38	93

B/F: Brought Forward; E: Classes Engaged; A: Classes Attended; Note: Mark: P for Present and A for Absent NC: Not Considered

(For Theory, one sheet/calendar month, For Labs/Practicals, the attendance sheet shall be maintained batchwise for full semester)

Signature of Staff Member:

8/9/23

Head of Department:

Dept of Electronics & Communication Engg
Nagarjuna College of Engg. & Technology
Venkatagirikote Post. Bangalore-562164

Date: 08-Sep-2023 02:34:28

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Monthly Attendance Report

Semester: Semester 4 **Class** : Section C **Date:** 18-May-2023 to 08-Sep-2023 **Attendance filter** 100 % **Code** : 21ECI43 **Subject Type:** Theory **Batch** : Batch 1 **Subject** : CIRCUITS & CONTROLS

Name of Staff Members : BHARGAVI KV

USN	Students Name	18	19	23	25	26	29	30	31	1	6	8	9	10	20	20	21	22	22	23	4	6	10	11	12	13	14	18	20	21	27	28	1	3	11	12	17	18	19	22	23	24	Total		Attn%
																																											E	A	
1NC21EC119	YASHASWINI V	P	P	P	P	P	P	P	P	A	P	P	P	A	P	P	A	P	P	A	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	35	85
1NC21EC120	YASHWANTH E	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	A	P	P	41	36	88
1NC21EC121	YASHWANTH H S	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	40	98
1NC21EC122	YELKUR NAMITHA	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	41	36	88
1NC22EC409	VANITHA G	P	P	P	P	P	P	P	A	P	A	P	P	A	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	41	35	85
1NC22EC410	VISHNUVARDHAN K N	A	A	A	P	P	A	A	P	P	P	P	P	A	A	A	P	P	P	A	A	P	P	A	P	A	A	A	A	P	A	P	P	P	A	A	P	A	A	A	A	A	41	18	44
1NC22EC411	VISHWAJEET M NIMBARAGI	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	40	98
1NC22EC412	VISHWAS N	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	41	39	95
1NC22EC413	YASHWANTH K B	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	41	40	98

B/F: Brought Forward; E: Classes Engaged; A: Classes Attended; Note: Mark: P for Present and A for Absent NC: Not Considered
(For Theory, one sheet/calendar month, For Labs/Practicals, the attendance sheet shall be maintained batchwise for full semester)

Signature of Staff Member:

Head of Department:

Date: 08-Sep-2023 02:34:28

AAT-1 21ECI43

Answer all questions

bhargavi.kv@ncetmail.com Switch account Saving disabled

* Indicates required question

Email *

☐ Record **bhargavi.kv@ncetmail.com** as the email to be included with my response

If we want to represent a relationship between number of link current & number of branch currents in a directional graph, we should use *

- ○ Reduced incidence
- ○ Incidence
- ○ tie set
- ○ Cut set

Which of the following theorem works only for the circuits that are reduce able to series/parallel combinations for each of the power sources at a time and it only works where the underlying equations are linear? *

- ○ Superposition theorem
- ○ Norton's theorem
- ○ Thevenin's theorem
- ○ Millmon's theorem

According to superposition theorem a 0V source can be replaced by *

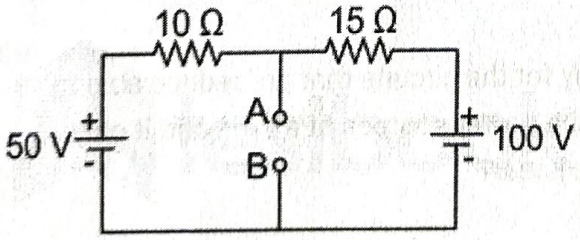
- 5V
- Cannot be replaced
- Short circuit
- Open circuit

The number of independent loops for a network with n nodes & b branches is *

- n-1
- b-n
- b-n+1
- b+n

The Vth & Rth of given circuit are *

The parameters of the Thevenin's equivalent circuit for the network shown below are



Your answer

A Norton's equivalent circuit consist of 100 micro amps current source in parallel with a 10K ohm resistance. If it is converted into Thevenin's equivalent, what is its Vth? *

- ○ 1KV
- ○ 1V
- ○ 10V
- ○ 0V

Which Linear circuit can be used as an equivalent circuit for a single voltage source & a series resistance. *

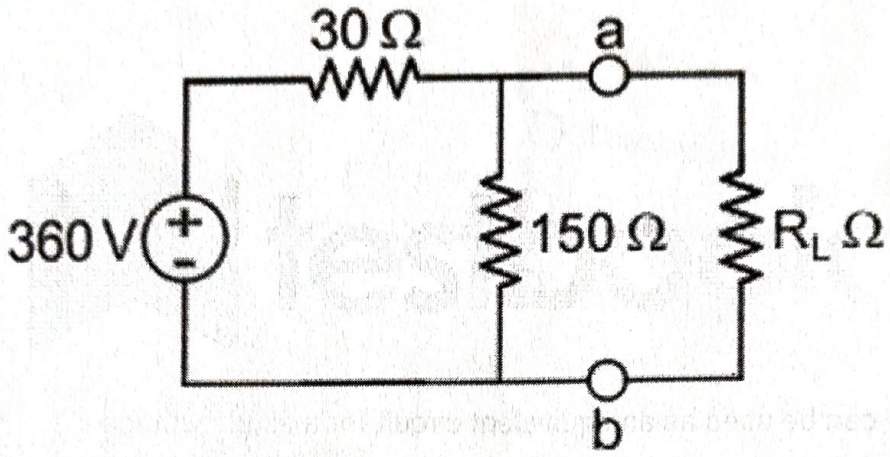
- ○ Norton's Equivalent
- ○ Thevenin's Equivalent
- ○ Maximum power equivalent
- ○ Reciprocal Power circuit

Name *

Your answer

Find the Norton's current *

The Norton's current in the circuit shown below is:



- ○ 12A
- ○ 120A
- ○ 4A
- ○ 2A

USN *

Your answer

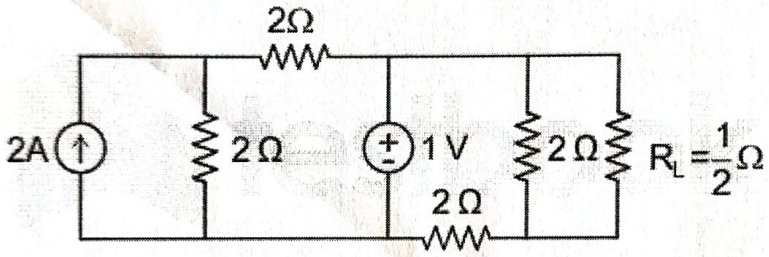
Mobile number *

Your answer

_____ is equal to the current passing through short-circuited output terminals *

- Load current
- Load resistance
- Thevenin's Equivallent
- Nortons Equivallent

Fin the current through Load Resistor using Thevenin's theorem *



- 2/3 Amps
- 3/2 Amps
- 4/3 Amps
- 1/3 Amps

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Dept of Electronics & Communication Engg
Nagarjuna College of Engg. & Technology
Venkatagirikote Post. Bangalore-562164

Nagarjuna College of Engineering & Technology												
4th sem C section		AAT-1 response sheet		Department of ECE			7/6/2023			Circuits & Controls		
Name	USN	Which of the fo	According to s	A Non	Which Linear circuit can	The Vth & Rth of	The nu	If we wa	Fin the curr	Find th		Marks
Sai Charan teja M	1NC21EC084	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Saifulla	1NC21EC085	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sangeetha. M	1NC21EC087	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
SHASHANK.K.S	1NC21EC088	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Shashanth raju KN	1NC21EC089	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohms and 70v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Shravanthi	1nc21ec090	Superposition t	Short circuit	10V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	6
Shreyas B J	1NC21EC091	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	4A	Nortons Equivallent	7
Shreyaswini S	1NC21EC092	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Shyarath A B	1NC21EC093	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sinchana lokesh	1NC21EC094	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohm 70volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Smitha D	1nc21ec095	Superposition t	Short circuit	1V	Thevenin's Equivalent	Rth=6ohm Vth =7	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Smitha s g	1NC21EC096	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sneha C S	1NC21EC097	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sneha.R	1NC21EC098	Superposition t	Short circuit	1V	Thevenin's Equivalent	6 ohm ; 70V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Sree raksha m	1NC21EC099	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
SRISHANTH T V	1NC21EC100	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Srija.B.S	1NC21EC101	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sudhanva Navaneeth	1NC21EC102	Superposition t	Short circuit	1V	Thevenin's Equivalent	6 ohm, 70 volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Sufiya.S	1NC21EC103	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Surabhi K N	1NC21EC104	Superposition t	Open circuit	1V	Thevenin's Equivalent	6 ohm, 70 volt	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Thanuja.SM	1NC21EC105	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Trived AH	1NC21EC106	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	Cut set	3/2 Amps	120A	Nortons Equivallent	6
Vamshi Krishna V	1NC21EC107	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohm and 70 volt	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Varsha.s	1NC21EC108	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	12A	Nortons Equivallent	8
Varshini cp	1NC21EC109	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Varun A S	1NC21EC110	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohms 70volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Venkatadri T	1NC21EC111	Superposition t	Short circuit	1V	Thevenin's Equivalent	6 ohm 70 volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Venkatanarayana M V	1NC21EC112	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohms and 70v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Vidyashree G	1NC21EC113	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	12A	Nortons Equivallent	8
Vijay raghavendra	1NC21EC114	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.5V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vinay bhat	1NC21EC115	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vinayak	1NC21EC116	Superposition t	Short circuit	1KV	Thevenin's Equivalent	Vth=42v and Rth	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	6
Vishwas B	1NC21EC117	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashas PT	1NC21EC118	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
YASHASWINI V	1NC21EC119	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashwanth E	1NC21EC120	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashwanth H S	1NC21EC121	Superposition t	Short circuit	1V	Thevenin's Equivalent	30volts,25 ohms	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yelkur Namitha	1NC21EC122	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Nandeesh Chinagodi	1NC22EC406	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Suhas S	1NC22EC407	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vamshi krishna BV	1NC22EC408	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vanitha G	1NC22EC409	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vishnu vardhan kn	1nc22ec410	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vishwas N	1nc22ec412	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashwath KN	1NC22EC413	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7

Nagarjuna College of Engineering & Technology												
4th sem C section		AAT-1 response sheet		Department of ECE			7/6/2023			Circuits & Controls		
Name	USN	Which of the fo	According to s	A Nor	Which Linear circuit can	The Vth & Rth of	The nu	If we wa	Fin the curr	Find th		Marks
Sai Charan teja M	1NC21EC084	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Saifulla	1NC21EC085	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sangeetha. M	1NC21EC087	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
SHASHANK.K.S	1NC21EC088	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Shashanth raju KN	1NC21EC089	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohms and 70v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Shravanthi	1nc21ec090	Superposition t	Short circuit	10V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	6
Shreyas B J	1NC21EC091	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	4A	Nortons Equivallent	7
Shreyaswini S	1NC21EC092	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Shyarath A B	1NC21EC093	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sinchana lokesh	1NC21EC094	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohm 70volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Smitha D	1nc21ec095	Superposition t	Short circuit	1V	Thevenin's Equivalent	Rth=6ohm Vth =7	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Smitha s g	1NC21EC096	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sneha C S	1NC21EC097	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sneha.R	1NC21EC098	Superposition t	Short circuit	1V	Thevenin's Equivalent	6 ohm ; 70V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Sree raksha m	1NC21EC099	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
SRISHANTH T V	1NC21EC100	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Srija.B.S	1NC21EC101	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Sudhanva Navaneeth	1NC21EC102	Superposition t	Short circuit	1V	Thevenin's Equivalent	6 ohm, 70 volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Sufiya.S	1NC21EC103	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Surabhi K N	1NC21EC104	Superposition t	Open circuit	1V	Thevenin's Equivalent	6 ohm, 70 volt	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Thanuja.SM	1NC21EC105	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Trived AH	1NC21EC106	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	Cut set	3/2 Amps	120A	Nortons Equivallent	6
Vamshi Krishna V	1NC21EC107	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohm and 70 volt	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Varsha.s	1NC21EC108	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	12A	Nortons Equivallent	8
Varshini cp	1NC21EC109	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Varun A S	1NC21EC110	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohms 70volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Venkatadri T	1NC21EC111	Superposition t	Short circuit	1V	Thevenin's Equivalent	6 ohm 70 volts	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Venkatanarayana M V	1NC21EC112	Superposition t	Short circuit	1V	Thevenin's Equivalent	6ohms and 70v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	8
Vidyashree G	1NC21EC113	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	12A	Nortons Equivallent	8
Vijay raghavendra	1NC21EC114	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.5V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vinay bhat	1NC21EC115	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vinayak	1NC21EC116	Superposition t	Short circuit	1KV	Thevenin's Equivalent	Vth=42v and Rth	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	6
Vishwas B	1NC21EC117	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashas PT	1NC21EC118	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
YASHASWINI V	1NC21EC119	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashwanth E	1NC21EC120	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashwanth H S	1NC21EC121	Superposition t	Short circuit	1V	Thevenin's Equivalent	30volts,25 ohms	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yelkur Namitha	1NC21EC122	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Nandeesh Chinagodi	1NC22EC406	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2V	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Suhas S	1NC22EC407	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vamshi krishna BV	1NC22EC408	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vanitha G	1NC22EC409	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vishnu vardhan kn	1nc22ec410	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Vishwas N	1nc22ec412	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7
Yashwath KN	1NC22EC413	Superposition t	Short circuit	1V	Thevenin's Equivalent	1.2v	b-n+1	tie set	3/2 Amps	120A	Nortons Equivallent	7

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Nagarjuna College of Engineering & Technology

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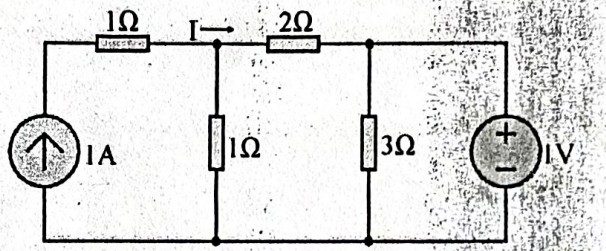
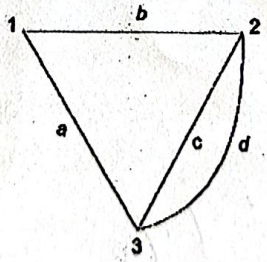
Department of Electronics and Communication Engineering

Circuits and Controls

21ECI43

Continuous Internal Examination-I

Semester: 4 **Date:** 28/06/2023 **Time:** 9:30 to 11:00AM **Max Marks:** 20

	Part-A			
	Module 1	**CO**	**M**	**BL**
1a	State and explain Kirchhoff's Current Law	CO1	5	L1
b	State and explain Super position theorem	CO1	5	L2
	OR			
2a	Apply super position theorem to determine I in the circuit shown in the Figure 1  Figure 1	CO1	10	L4
	Part-B			
	Module 2			
3a	Define the following terminologies used in graph theory (i) tree (ii) Co-tree (iii) Branch (iv) node	CO2	4	L2
b	Draw the number of possible trees and co-trees for the given graph  Figure 3	CO2	6	L3
	OR			
4a	Draw the graph, tree and its co-tree for the electrical circuit shown in Figure 4 and also construct: (i) incidence matrix (ii) cut-set matrix	CO2	6	L3

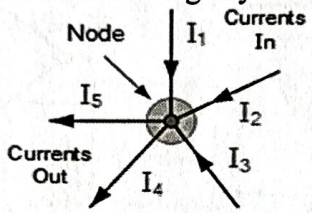
	Nagarjuna College of Engineering & Technology **(An Autonomous College under VTU)** **Bangalore 562 164**	
	Scheme & Solution	
Exam: BE	Sem: 4th Sem	
Course Title: Circuits & Control (CIE-I)	Course Code: 21ECI43	
Duration of the Paper: 60 mins	Max. Marks: 100	
Total No. of Pages: 4		

1a. KCL, states that the "total current or charge entering a junction or node is exactly equal to the charge leaving the node as it has no other place to go except to leave, as no charge is lost within the node". — 5M

OR

The algebraic sum of the currents entering any node is zero.

Currents Entering the Node Equals Currents Leaving the Node



$$I_1 + I_2 + I_3 + (-I_4 + -I_5) = 0$$

Proof:

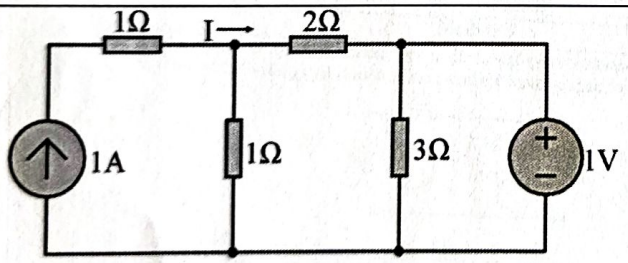
(2+3)

1b. In any linear bilateral network containing more than one independent source, the response in any element is equal to the algebraic sum of all the responses due to each independent source acting independently, setting all other independent sources to zero. — 5M

Proof:

(2+3)

2a.



10M

Applying Superposition theorem to find the current across 2Ω resistor is

$$R_{th} = 1.5\Omega$$
$$I_T = 0.666A$$
$$I_1' = 0.333A$$
$$I_1'' = 0.333A$$

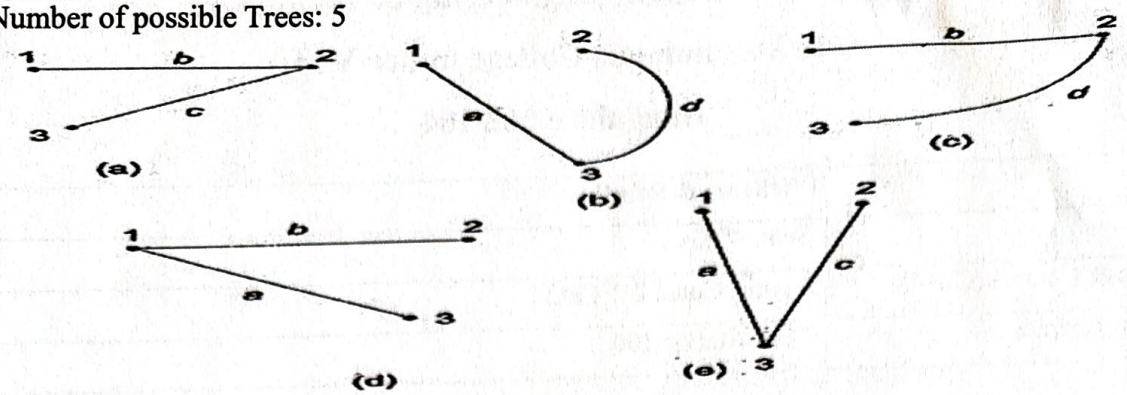
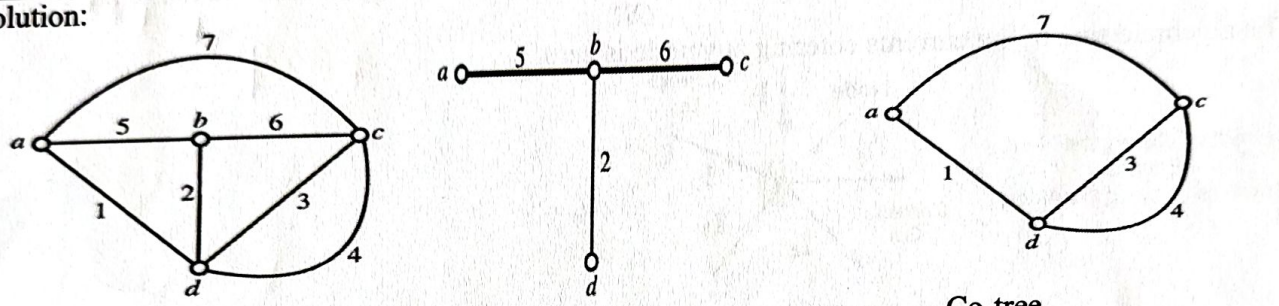
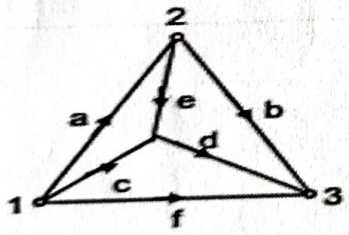
Therefore, the total current across 2Ω is $I = I_1' + I_1'' = 0.666A$

Each carry 2 Marks

3.a Definitions — 4M

Tree, Co-tree, Branch, node

Each carry one marks

3b.	Number of possible Trees: 5  (a) (b) (c) (d) (e) Number of possible co-trees: 5 (3+3)	6M
4a	Solution:  Graph Tree Co-tree Incidence Matrix Tie set Matrix Cut set Matrix Each carry one mark	6M
4b.	 Trees Co-trees (2+2)	4M
	Course Co-ordinator HOD	

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Nagarjuna College of Engineering & Technology

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Department of Electronics and Communication

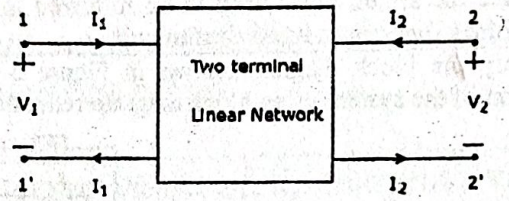
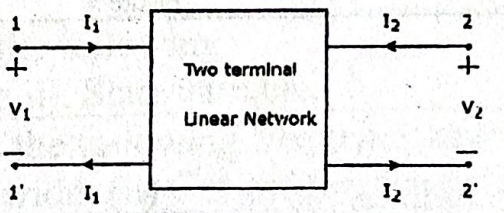
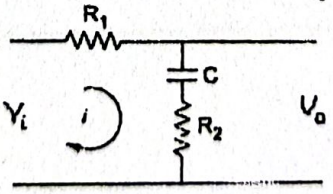
Circuits and Controls

21ECI43

Continuous Internal Evaluation-II

Semester: IV Date: 10-08-2023 Timings: 09:30-10:30AM Maximum marks: 20

NOTE: Answer any two full questions.

		CO	M	BL
	Part A			
	Module 2			
1. a	Obtain thetransmission parameters for the given two-port network shown in Figure 1.  Figure 1	CO2	5	L3
b.	Derive the equations of the Z-parameter for two-port network	CO2	5	L3
	OR			
2. a	Obtain theShort- circuit Admittance parameters for the given two-port network shown in Figure 2.  Figure 2	CO2	5	L3
b.	Derive the equations of the H-parameter for two-port network	CO2	5	L3
	Part B			
	Module 3			
3. a	Obtain the transfer function for the electrical system shown in Figure 3, when the output voltage is measured across the resistor-capacitor combination.  Figure 3	CO3	5	L3
b.	Analyze the given physical system shown in Figure 4 to obtain the equivalent system and equilibrium equations for the given physical system. Also, draw	CO3	5	L2

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	Scheme & Solution	
Exam: BE	Sem: 4th Sem	
Course Title: Circuits & Control (CIE-II)	Course Code: 21ECI43	
Duration of the Paper: 60 mins	Max. Marks: 20	
Total No. of Pages. 4		

1a.

$$V_1 = AV_2 + B(-I_2)$$

$$I_1 = CV_2 + D(-I_2)$$

The transmission parameters are

$$A = \left.\frac{V_1}{V_2}\right|_{I_2 = 0}$$

the reverse voltage ratio with the receiving end open-circuited.

$$C = \left.\frac{I_1}{V_2}\right|_{I_2 = 0}$$

the transfer admittance with the receiving end open-circuited:

$$B = \left.\frac{V_1}{-I_2}\right|_{V_2 = 0}$$

the transfer impedance with the receiving end short-circuited:

$$D = \left.\frac{I_1}{-I_2}\right|_{V_2 = 0}$$

the reverse current ratio with the receiving end short-circuited

Transmission matrix -1 Marks
Each variable carries 1Marks

5M

1b.

$$\begin{vmatrix} V_1 \\ V_2 \end{vmatrix} = \begin{vmatrix} Z_{11} & Z_{12} \\ Z_{21} & Z_{22} \end{vmatrix} \begin{vmatrix} I_1 \\ I_2 \end{vmatrix}$$

or

$$V_1 = Z_{11}I_1 + Z_{12}I_2$$

or

$$V_2 = Z_{21}I_1 + Z_{22}I_2$$

Now,

$$Z_{11} = \left.\frac{V_1}{I_1}\right|_{I_2 = 0}$$

the input driving-point impedance with the output port open-circuited.

$$Z_{21} = \left.\frac{V_2}{I_1}\right|_{I_2 = 0}$$

the forward transfer impedance with the output port open-circuited.

$$Z_{12} = \left.\frac{V_1}{I_2}\right|_{I_1 = 0}$$

the reverse transfer impedance with the input port open-circuited.

$$Z_{22} = \left.\frac{V_2}{I_2}\right|_{I_1 = 0}$$

the output driving point impedance with input port open-circuited.

Impedance matrix -1 Marks
Each variable carries 1Marks

5M

2a.

$$\begin{bmatrix} I_1 \\ I_2 \end{bmatrix} = \begin{bmatrix} Y_{11} & Y_{12} \\ Y_{21} & Y_{22} \end{bmatrix} \begin{bmatrix} V_1 \\ V_2 \end{bmatrix}$$

$$Y_{11} = \left.\frac{I_1}{V_1}\right|_{V_2 = 0}$$

and forward transfer admittance $Y_{21} = \left.\frac{I_2}{V_1}\right|_{V_2 = 0}$

With the input terminals short-circuited, *i.e.*, $V_1 = 0$.

$$Y_{22} = \left.\frac{I_2}{V_2}\right|_{V_1 = 0}$$

output driving point admittance

and $Y_{12} = \left.\frac{I_1}{V_2}\right|_{V_1 = 0}$. reverse transfer admittance.

Admittance matrix -1 Marks
Each variable carries 1Marks

5M

2b.

$$\begin{bmatrix} V_1 \\ I_2 \end{bmatrix} = \begin{bmatrix} h_{11} & h_{12} \\ h_{21} & h_{22} \end{bmatrix} \begin{bmatrix} I_1 \\ V_2 \end{bmatrix}$$

The hybrid parameters can be defined as

$$h_{11} = \left.\frac{V_1}{I_1}\right|_{V_2 = 0}$$

i.e., input impedance with the output short-circuited.

$$h_{21} = \left.\frac{I_2}{I_1}\right|_{V_2 = 0}$$

i.e., forward current gain with the output short-circuited.

$$h_{12} = \left.\frac{V_1}{V_2}\right|_{I_1 = 0}$$

i.e., reverse voltage gain with the input open-circuited.

$$h_{22} = \left.\frac{I_2}{V_2}\right|_{I_1 = 0}$$

i.e., output admittance with the input open-circuited.

Hybrid matrix -1 Marks
Each variable carries 1Marks

5M

3.a

$$I(s) = \frac{Vi(s) \cdot Cs}{Cs(R_1 + R_2) + 1}$$

2 Marks

$$V_0(s) = I(s)R_2 + \frac{1}{C}\frac{I(s)}{s}$$

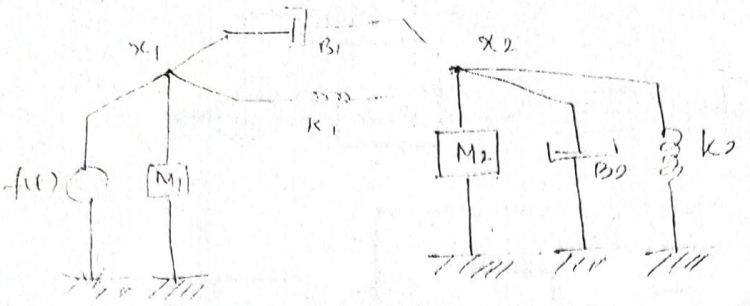
-1 Marks

$$\frac{V_0(s)}{Vi(s)} = \frac{R_2 Cs + 1}{Cs(R_1 + R_2 + 1)}$$

- 2 Marks

5M

3b.



5M

—— 1 Marks

$$f(t) = M_1 \frac{d^2x_1(t)}{dt^2} + B_1 \frac{d}{dt}\left[x_1(t) - x_2(t)\right] + k_1\left[x_1(t) - x_2(t)\right] \quad \text{—— 1 Mark} \quad -(1)$$

$$0 = M_2 \frac{d^2x_2(t)}{dt^2} + B_1 \frac{d}{dt}\left[x_2(t) - x_1(t)\right] + k_1\left[x_2(t) - x_1(t)\right]$$

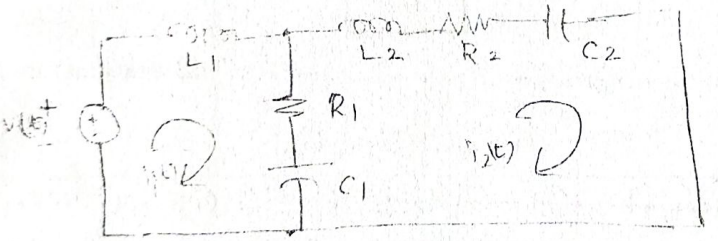
$$+ B_2 \frac{d}{dt}x_2(t) + k_2 x_2(t) \quad -(2) \quad \text{—— 1 Mark}$$

$$v(t) = L_1 \frac{di_1(t)}{dt} + R_1\left[i_1(t) - i_2(t)\right] + \frac{1}{C_1}\int\left(i_1(t) - i_2(t)\right)dt$$

$$0 = L_2 \frac{di_2(t)}{dt} + R_1\left[i_2(t) - i_1(t)\right] + \frac{1}{C_1}\int\left[i_2(t) - i_1(t)\right]dt$$

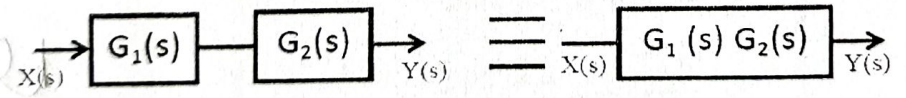
$$+ R_2 i_2(t) + \frac{1}{C_1}\int i_2(t)\,dt$$

1M

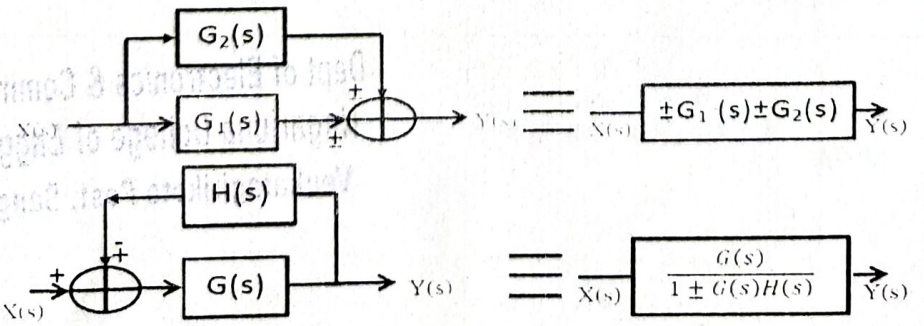


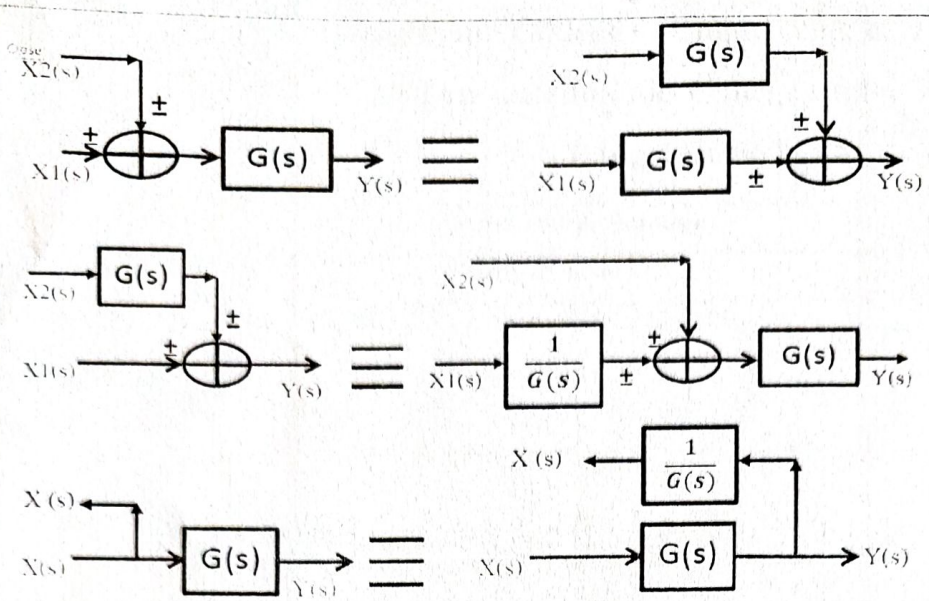
—— 1M

4a



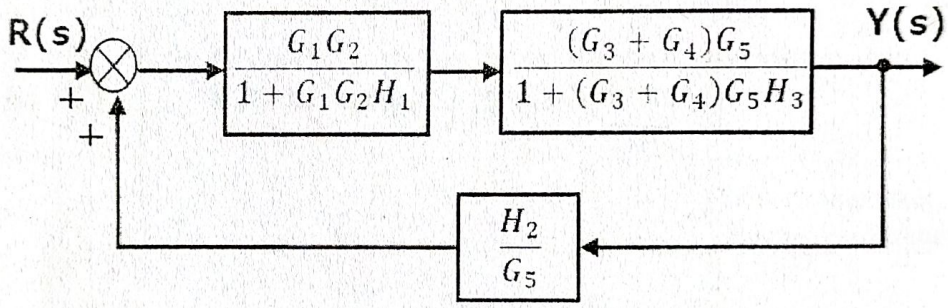
5M





Any 5 Rules
Each carries 1marks

4b.



5M

Block diagram reduction-4M

$$\frac{Y(s)}{R(s)} = \frac{G_1G_2G_5^2(G_3+G_4)}{(1+G_1G_2H_1)\{1+(G_3+G_4)G_5H_3\}G_5 - G_1G_2G_5(G_3+G_4)H_2}$$ -1M

Course Co-ordinator

HOD

Dept of Electronics & Communication Engg
Nagarjuna College of Engg. & Technolgy
Venkatagirikote Post. Bangalore-562164

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Nagarjuna College of Engineering & Technology

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Department of Electronics and Communication Engineering

Circuits and Controls

21ECI43

Continuous Internal Examination-III

Semester: IV **Date:** 29-08-2023 **Timings:** 09:30-10:30AM **Maximum marks:** 20

NOTE: Answer any two full questions.

		CO	M	BL
	Part-A			
	Module 4			
1a	Derive the expression for steady state error of closed loop system.	CO4	4	L3
b	Obtain the expression of positional error constant and its relative steady state error constant for the response of a system.	CO4	6	L3
	OR			
2a	Comment on the stability of the system for the sixth order characteristic equation given below.	CO4	5	L3
b	Calculate the value of K, marginal value of K and frequency of sustained oscillations for unity feedback system	CO4	5	L3
	Part-B			
	Module 5			
3a	Define the following. i). State ii). State variable.	CO5	4	L2
b	Discuss the following frequency specifications of Bode plot: (i)Bandwidth (ii) Cut-off frequency (iii) Cut-off rate (iv) Resonant Peak	CO5	6	L2
	OR			
4a	Sketch the Bode plot and Determine Gain margin, Phase margin, Gain Cross over frequency, Phase cross over frequency for a unity feedback system. The gain of the system is:	CO5	10	L5

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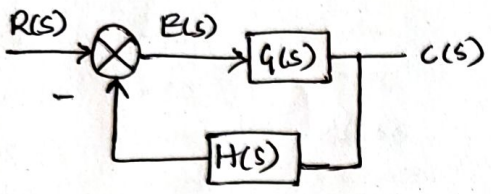
Scheme & Solution

Exam: CIE - 3	Sem: 4
Course Title: CIRCUITS & CONTROLS	Course Code: 21EC243
Duration of the Paper: 60 min	Max. Marks: 20
Total No. of Pages:	

1a.



$E(s) = R(s) - B(s)$

$B(s) = C(s)H(s)$

$C(s) = G(s)E(s)$

$B(s) = G(s)E(s)H(s)$ —(2M)

$E(s) = R(s) - G(s)E(s)H(s)$

$E(s) = \dfrac{R(s)}{1+G(s)H(s)}$

$$e_{ss} = \lim_{s\to 0} \frac{sR(s)}{1+G(s)H(s)}$$ —(2M)

4M

1b.

$$r(t) = \begin{cases} A & ; 0<t<\infty \\ 0 & ; \text{otherwise} \end{cases}$$ —(2M)

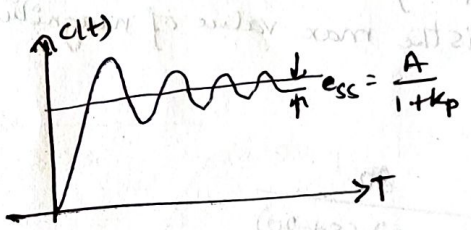
$$e_{ss} = \frac{A}{1+K_p}$$

$$K_p = \lim_{s\to 0} G(s)H(s)$$ —(2M)

LT; $r(t) = R(s) = \dfrac{A}{s}$

$$e_{ss} = \lim_{s\to 0} \frac{sR(s)}{1+G(s)H(s)}$$

$$= \lim_{s\to 0} \frac{A}{1+G(s)H(s)}$$ —(2M)



6M

2a. $s^6 + 2s^5 + 8s^4 + 12s^3 + 16s + 16 = 0$

s^6	1	8	20	16
s^5	2	12	16	
s^4	2	12	16	
s^3	0	0	0	

— 1M

$2s^4 + 12s^2 + 16 = 0$

$\dfrac{d}{ds}[2s^4 + 12s^2 + 16] = 4s^3 + 12s = 0$ — 1M

s^6	1	8	20	16
s^5	2	12	16	
s^4	1	6	8	
s^3	4	12	0	
s^2	3	8		
s^1	1/3			
s^0	8			

— 2M

System is marginally stable & roots are $S = \pm j\sqrt{2}$ & $S = \pm j2$ —(1M)

2b. $S^4 + kS^3 + 2S^2 + (k+1)S + 10 = 0$

S^4	1	2	10
S^3	k	(k+1)	0
S^2	$\frac{(k+1)-2k}{k}$	$\frac{10k-0}{k}$	
S^1	$(k+1)-10k\left[\frac{(k+1)-2k}{k}\right]$		
S^0	$k-1>0$		

—(4M)

$k > 0$ The system is stable

$k > 1$ —(5M)

5M

3a. State: The smallest set of variables & knowledge of these variables at $t = t_0$ together with i/p for $t \geq t_0$ completely determines the behaviour of system at $t \geq t_0$.

State variable: One of the set of variables that are used to describe the mathematical 'state' of dynamical system. 4M

3b. Bandwidth: Range of frequencies over which the system will respond satisfactorily.

Cutoff-freq: The freq at which the magnitude of closed loop response is 3dB down from its zero freq.

Cut-off rate: The slope of the resultant curve near the cutoff frequency.

Resonant peak: It is the max value of magnitude of the closed loop frequency response. 6M

4a. $$G(S) = \frac{80}{S(S+2)(S+20)}$$

$$G(S)H(S) = \frac{80}{S \times 2\left(1+\frac{S}{2}\right)20\left(1+\frac{S}{20}\right)}$$

Gain $k = 2$ & System has pole at $S = 0$

$$\omega_{G_1} = \frac{1}{T_1} = \frac{1}{1/2} = 2 \text{ rad/sec}$$

$$\omega_{G_2} = \frac{1}{T_2} = \frac{1}{1/20} = 20 \text{ rad/sec.}$$

$20 \log k = 6\,dB \rightarrow$ for $k = 2$. (3M)

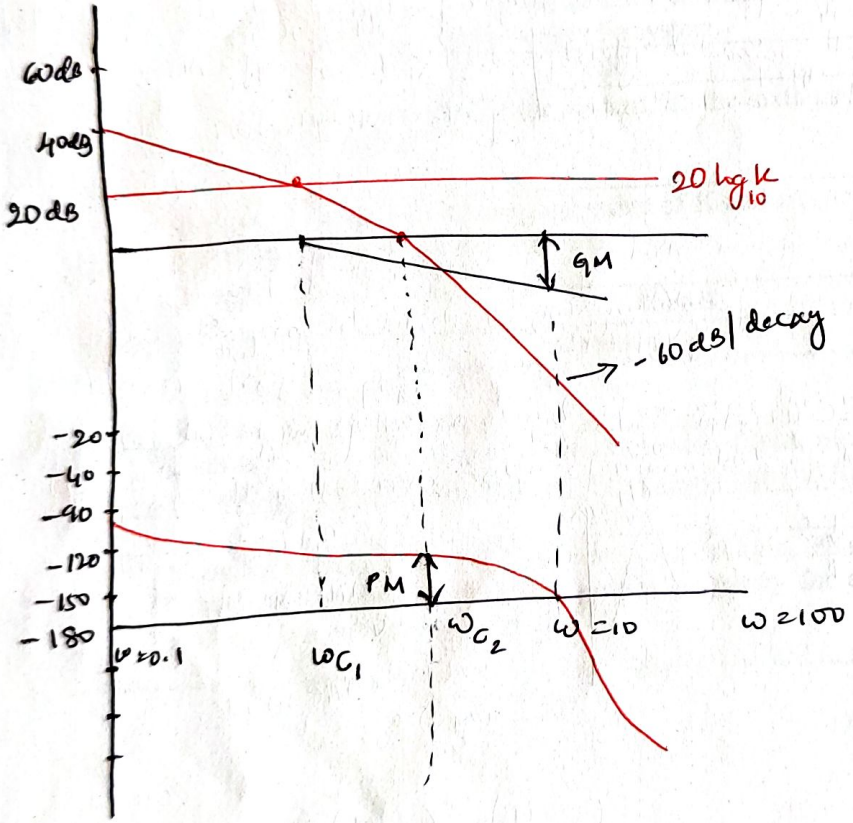
$\omega_c = 1$

$20 \log(1)^{-1} = 0$ dB

$\omega_c = 10 \quad = -20$ dB.

ω	$1/j\omega$	$-\tan^{-1}(\omega/2)$	$-\tan^{-1}(\omega/20)$	θ_R.
0.2	-90	-5.7	-0.57	-96.27
2	-90	-4.5	-5.7	-140.7
8	-90	-75.96	-21.8	-187.76
10	-90	-78.96	-26.56	-145.26
20	-90	-84.28	-45	-219.28
40	-90	-87.13	-63.43	-240.28

(3M)



GM = 11dB

PM = 54°

(4M)

$\omega_{g_c} < \omega_{p_c}$ System is stable.

10M

T Bhargavi
Course - teacher.

6/11/2023

Dept of Electronics & Communication Engg.
Nagarjuna College of Engg. & Technology
Venkatagirikote Post. Bangalore-562164

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY

IA FINAL REPORT

Stream : BE
Semester : Semester 4
Subject Name : CIRCUITS & CONTROLS
Batch Name : Batch 1

Department : Electronics and C
Section : Division C
Subject Code : 21ECI43
Max IA Marks : 50

Student Name	USN	CIE1	CIE2	CIE3	AAT1	L-T1	L-R1	Total	Sc
SAI CHARAN TEJA M	1NC21EC084	10.00	3.00	8.00	8.00	4.00	10.00	29	
SAIFULLA	1NC21EC085	10.00	10.00	12.00	7.00	4.00	10.00	32	
SANDHU SHASHIDHAR	1NC21EC086	18.00	19.00	18.00	7.00	4.00	10.00	40	
SANGEETHA M	1NC21EC087	15.00	9.00	12.00	7.00	4.00	10.00	33	
SHASHANK K S	1NC21EC088	11.00	10.00	10.00	7.00	4.00	10.00	32	
SHASHANTH RAJU K N	1NC21EC089	14.00	4.00	18.00	8.00	7.00	9.00	36	
SHRAVANTHI G	1NC21EC090	11.00	10.00	15.00	6.00	8.00	10.00	36	
SHREYAS B J	1NC21EC091	20.00	17.00	17.00	7.00	10.00	10.00	45	
SHREYASWINI S	1NC21EC092	13.00	5.00	14.00	7.00	7.00	10.00	35	
SHYARATH A B	1NC21EC093	20.00	12.00	15.00	7.00	9.00	10.00	42	
SINCHANA LOKESH	1NC21EC094	16.00	16.00	15.00	8.00	9.00	10.00	43	
SMITHA D	1NC21EC095	19.00	19.00	19.00	8.00	9.00	10.00	46	
SMITHA S G	1NC21EC096	14.00	18.00	17.00	7.00	9.00	10.00	43	
SNEHA C S	1NC21EC097	20.00	17.00	20.00	7.00	9.00	10.00	45	
SNEHA R	1NC21EC098	15.00	15.00	15.00	8.00	10.00	10.00	43	
SREE RAKSHA M	1NC21EC099	15.00	13.00	11.00	7.00	9.00	10.00	39	
SRI SHANTH T V	1NC21EC100	8.00	6.00	16.00	7.00	4.00	8.00	29	
SRIJA B S	1NC21EC101	9.00	0.00	12.00	7.00	4.00	10.00	28	
SUDHANVA NAVANEETH P B	1NC21EC102	9.00	14.00	19.00	8.00	5.00	10.00	37	
SUFIYA S	1NC21EC103	4.00	4.00	11.00	7.00	4.00	10.00	28	
SURABHI K N	1NC21EC104	17.00	11.00	14.00	7.00	8.00	10.00	39	
THANUJA S M	1NC21EC105	8.00	15.00	17.00	7.00	8.00	10.00	39	
TRIVED A H	1NC21EC106	0.00	4.00	8.00	6.00	4.00	10.00	24	
VAMSHI KRISHNA V	1NC21EC107	12.00	10.00	15.00	8.00	8.00	10.00	39	
VARSHA S	1NC21EC108	11.00	9.00	15.00	8.00	7.00	10.00	37	
VARSHINI C P	1NC21EC109	2.00	0.00	9.00	7.00	4.00	10.00	25	
VARUN A S	1NC21EC110	2.00	9.00	15.00	8.00	4.00	0.00	21	
VENKATADRI T	1NC21EC111	0.00	2.00	7.00	8.00	4.00	9.00	24	
VENKATANARAYANA M V	1NC21EC112	7.00	12.00	18.00	8.00	9.00	10.00	40	
VIDYASHREE G	1NC21EC113	6.00	16.00	15.00	8.00	8.00	10.00	39	
VIJAYA RAGHAVENDRA	1NC21EC114	12.00	A	18.00	7.00	6.00	10.00	33	
VINAY VENKATACHALA BHAT	1NC21EC115	14.00	18.00	14.00	7.00	9.00	10.00	42	
VINAYAK	1NC21EC116	14.00	10.00	18.00	6.00	6.00	10.00	36	
VISHWAS B	1NC21EC117	13.00	7.00	11.00	7.00	4.00	10.00	32	
YASHAS P T	1NC21EC118	17.00	19.00	20.00	7.00	10.00	10.00	46	

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY

IA FINAL REPORT

Stream	: BE	**Department**	: Electronics and Communication E
Semester	: Semester 4	**Section**	: Division C
Subject Name	: CIRCUITS & CONTROLS	**Subject Code**	: 21ECI43
Batch Name	: Batch 1	**Max IA Marks**	: 50

Student Name	USN	CIE1	CIE2	CIE3	AAT1	L-T1	L-R1	Total	See Marks
VANITHA G	1NC22EC409	5.00	8.00	10.00	7.00	5.00	10.00	30	
VISHNUVARDHAN K N	1NC22EC410	0.00	0.00	0.00	7.00	4.00	10.00	21	
VISHWAJEET M NIMBARAGI	1NC22EC411	14.00	15.00	11.00	7.00	10.00	10.00	41	
VISHWAS N	1NC22EC412	4.00	0.00	2.00	7.00	4.00	10.00	23	
YASHWANTH K B	1NC22EC413	11.00	11.00	10.00	7.00	7.00	10.00	35	

Signature of Staff Member: 8/9/23

Verified By:

Head of Department:
Date: 08-Sep-2023 02:34:30

Dept of Electronics & C...ation Engg
Nagarjuna Colleg...chnolgy
Venkatagi...re-562164

NAGARJUNA COLLEGE OF ENGG & TECHNOLOGY

(Autonomous college under VTU)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.

ACADEMIC YEAR

Special Coaching Classes (Attendance list for Slow Learners)

Section: C **Semester:** 4

Course Name: CIRCUITS & CONTROLS **Course Code:** 22ECI34

Teacher Name: Mrs. BHARGAVI KV

Sl. No	USN	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14
			5/7	12/7	19/7	26/8	02/8	09/8	23/8	30/8	06/9	06/9				
1.	1NG21EC100	SRISHANTH . V	1	2	3	4	5	6	7	8	A	10				
2.	1NG21EC084	SAI CHARAN TEJA M	1	2	3	4	5	6	7	8	9	10				
3.	1NG21EC085	SAIPULLA	1	2	3	4	5	6	7	8	9	10				
4.	1NG21EC101	SRIJA BS .	1	A	2	3	4	5	6	7	8	9				
5.	1NG21EC103	SURIYA . S	1	2	3	4	5	6	7	8	9	10				
6.	1NC21EC105	TANUJA S . M	1	2	3	4	5	6	7	8	9	10				
7.	1NC21EC106	TRIVEDA H	1	2	3	4	A	5	6	7	8	9				
8.	1NC21EC109	VARSHINI C P	1	2	3	4	5	6	7	8	9	10				
9.	1NC21EC110	VARUN A . S	1	A	2	3	4	5	A	6	7	8				
10.	1NG21EC111	VENKATADRI . T	1	2	3	4	5	6	7	8	9	10				
11.	1NC21EC112	VENKATARARAYANA	1	A	2	3	4	5	6	7	8	9				
12.	1NC21EC113	VIDYASHREE . G	1	2	3	4	5	6	7	8	9	10				
13.	1NC21EC119	YASHASWINI . V	1	2	3	4	5	6	7	8	9	10				
14.	1NC22EC409	VANITHA . G	1	2	3	4	5	6	7	8	9	10				
15.	1NC22EC410	VISHNUVARDHAN	1	A	2	3	A	A	5	6	7	8				
16.	1NC22EC412	VISHWAS . N	1	2	3	4	5	6	7	8	9	10				
17.																
18.																
19.																
20.																

Faculty Signature

HOD

Dept. of Electronics & Communication E...
Nagarjuna College of Engg. & Techno...
Venkatagirikote Post, Bangalore-562...

NAGARJUNA COLLEGE OF ENGG & TECHNOLOGY
(Autonomous college under VTU)
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.

Performance Progress

Semester: 04
Subject Code: 21EC43
Faculty Name: Mrs. BHARGAVI KV

Sl.No	USN	CIE-1	CIE-2	CIE-3	AAT'S	SEE	Make UP SEE	Result	Remarks
1.	INC21EC100	8	6	16	04	NE		NE	NE
2.	INC21EC006	0	4	08	04	NE		NE	NE
3.	INC21EC111	0	2	07	04	NE		NE	NE
4.	INC22EC410	0	0	00	04	NE		NE	NE
5.	INC22EC412	4	0	02	04	NE		NE	NE
6.	INC21EC084	10	3	08	04	P		Pass	
7.	INC21EC085	10	10	12	04	C		Pass	
8.	INC21EC101	9	0	12	04	B+		Pass	
9.	INC21EC102	9	14	19	05	A		Pass	
10.	INC21EC103	4	4	11	04	F		fail	
11.	INC21EC105	8	15	17	08	A+		Pass	
12.	INC21EC109	2	0	9	04	NE		NE	NE
13.	INC21EC110	2	9	15	04	NE		NE	NE
14.	INC21EC112	7	12	18	09	A+		Pass	
15.	INC21EC113	6	16	15	08	B+		Pass	
16.	INC21EC119	6	9	03	04	F		fail	
17.	INC22EC409	5	8	10	05	C		Pass	
18.									
19.									
20.									

Faculty Signature

HOD

Dept of Electronics & Communication Engg
Nagarjuna College of Engg. & Technology
Venkatagirikote Post. Bangalore-562164

NAGARJUNA
COLLEGE OF ENGINEERING & TECHNOLOGY

Nagarjuna College of Engineering and Technology, Bangalore

(An Autonomous Institute under VTU. Accredited by NAAC with A+ Grade)

STUDENT FEEDBACK ANALYSIS REPORT FOR THE ACADEMIC SESSION - EVEN SEMESTER

Name	Subject	Branch/Sem/Section	No. of students	85-100 Points	70-84 Points	Less than 70	Avg Points
Bhargavi KV	CIRCUITS & CONTROLS (21ECI43)	BE-EC Semester 4 SEC C	26	26			98.56
Bhargavi KV	SAMSKRUTIKA KANNADA (21KSK47)	BE-EC Semester 4 SEC A	34	30	4		94.6
Bhargavi KV	SAMSKRUTIKA KANNADA (21KSK47)	BE-EC Semester 4 SEC B	32	30	1	1	97.01
Bhargavi KV	SAMSKRUTIKA KANNADA (21KSK47)	BE-EC Semester 4 SEC C	26	25	1		96.82
Bhargavi KV	SAMSKRUTIKA KANNADA (21KSK47)	BE-EC Semester 4 SEC A	34	30	4		94.6

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Academic Year 2023-2024

Counselling Allotment

III Year

Sl.No	USN	Name of the Student	Counsellor Name	Counsellor Signature
1	1NC21EC107	VAMSHI KRISHNA V	Mrs. Bhargavi K V	
2	1NC21EC108	VARSHA S		
3	1NC21EC109	VARSHINI C P		
4	1NC21EC110	VARUN A S		
5	1NC21EC111	VENKATADRI T		
6	1NC21EC112	VENKATANARAYANA M V		
7	1NC21EC113	VIDYASHREE G		
8	1NC21EC114	VIJAYA RAGHAVENDRA		
9	1NC21EC115	VINAY VENKATACHALA BHAT		
10	1NC21EC116	VINAYAK		
11	1NC21EC117	VISHWAS B		
12	1NC21EC118	YASHAS P T		
13	1NC21EC119	YASHASWINI V		
14	1NC21EC120	YASHWANTH E		
15	1NC21EC121	YASHWANTH H S		
16	1NC21EC122	YELKUR NAMITHA		