

LESSON PLAN

Program Name	ELTX & COMM ENGG. / 3 rd Sem.
Course/Subject Name	ELECTRONIC MEASUREMENT & INSTRUMENTATION
Course/Subject Code	ECPC213
Course/Subject Coordinator Name	AMAN KUMAR SOOD

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	EM&I	TH [3+1(DCS)	40	60	60	60
Reference books			1. Electrical & Electronic Measurement AK Sawhney Dhanpat Rai & Sons, India 2. Electronics instrument & Measurement Technique W. D. Cooper Prentice Hall International India 3. Electronic Measurement & Instrumentation J. G. Joshi Khanna Publishing House , Delhi 4. Electronic Instrumentation H.S. Kalsi The Mcgraw- Hill			

Program Specific Outcomes (COs):

CO1	Understand fundamental of various electrical measurements.
CO2	Describe the measurement bridges, potentiometer and transducer.
CO3	Formulation of bridges and transducers.
CO4	Learning of measurement using various instruments under different setups.
CO5	Understanding of Oscilloscope and transducer.

Teaching Plan: (14×4=56)

Lecture No.	Topic Covered	Proposed date	Actual Date	Remarks
1	Basics of Measurements and Bridges: Accuracy & precision, Resolution (DCS)	01/08/2026		
2	Errors in Measurement	03/08/2026		
3	Types of Errors	04/08/2026		
4	Types of Errors	06/08/2026		
5	DC Bridges – Wheatstone and Kelvin Double Bridge	10/08/2026		
6	DC Bridges – Wheatstone and Kelvin Double Bridge	11/08/2026		
7	AC Bridges - Maxwell's Bridge, Hay's Bridge	13/08/2026		
8	AC Bridges - Maxwell's Bridge, Hay's Bridge	17/08/2026		
9	Anderson Bridge	18/08/2026		
10	De-Sauty's Bridge	20/08/2026		
11	Potentiometer: Basic DC slide wire Potentiometer	22/08/2026		
12	Potentiometer: Basic DC slide wire Potentiometer	24/08/2026		
13	Crompton's DC Potentiometer	25/08/2026		
14	Application Slide wire pot.	27/08/2026		
15	Applications of DC Potentiometer	29/08/2026		
16	AC Potentiometers	31/08/2026		
17	A C Potentiometers	01/09/2026		
18	AC pot Advantages & Disadvantages	03/09/2026		
19	Applications of AC Potentiometers.	05/09/2026		
20	Measuring Instruments: Permanent Magnet Moving Coil Instruments (PMMC).	07/09/2026		
21	Permanent Magnet Moving Coil Instruments (PMMC).	08/09/2026		
22	CT-I	10/09/2026		
23	PMMC Applications	14/09/2026		
24	PMMC Adv. & Disadvantages	15/09/2026		
25	Moving Iron type Instruments (MI).	17/09/2026		
26	Moving Iron type Instruments (MI).	19/09/2026		
27	Electro Dynamo Type Instruments	21/09/2026		
28	Applications Dynamo Type Instruments	22/09/2026		
29	Single Phase Energy Meter	24/09/2026		
30	Single Phase Energy Meter	26/09/2026		
31	Electronic Instruments: Electronic Voltmeter	28/09/2026		
32	Electronic Instruments: Electronic Voltmeter	29/09/2026		
33	Digital Voltmeter	01/10/2026		
34	Electronic Multimeters	03/10/2026		
35	Q – Meter	05/10/2026		
36	Vector Impedance Meter	06/10/2026		
37	Vector Impedance Meter	08/10/2026		
38	CT-II	12/10/2026		
39	Oscilloscopes: Cathode ray tube	13/10/2026		
40	Cathode ray tube :construction, operation, screens, graticules.	15/10/2026		
41	Cathode ray tube :construction, operation, screens, graticules	17/10/2026		
42	Vertical deflection system, Horizontal deflection system	19/10/2026		
43	Vertical deflection system, Horizontal deflection system	22/10/2026		

44	Delay line	24/10/2026		
45	Measurement of frequency, time delay, phase angle and modulation index (trapezoidal method)	27/10/2026		
46	Oscilloscope Probes	29/10/2026		
47	HOUSE TEST	02/11/2026 to 05/11/2026		
48	Structure of 1:1 and 10:1 probe	10/11/2026		
49	Multiple Trace CRO.	12/11/2026		
50	Transducers: Classification, Selection Criteria	16/11/2026		
51	Construction, Working Principles and Application of RTD	17/11/2026		
52	Construction, Working Principles and Application of Thermocouple	19/11/2026		
53	Construction, Working Principles and Application of Thermistor,	21/11/2026		
54	Construction, Working Principles and Application of LVDT	23/11/2026		
55	Construction, Working Principles and Application of Strain Gauge, Load Cell	26/11/2026		
56	Piezoelectric Transducer	28/11/2026		

Assignments:

Assignment serial	Contents of syllabus covered	Proposed date	Actual date	Remarks
A-1	Basics of Measurements and Bridges	07-09-2026		
A-2	Measuring Instruments Electronic Instruments	29-10-2026		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed date	Actual date	Remarks
CT-I	30% of the syllabus	As per Academic Calender		
CT-II	Next 30% of the syllabus	As per Academic Calender		
House Test	80% of the syllabus	As per Academic Calender		

LESSON PLAN

Program Name	Diploma in Elex. & Comm. Engg. / 3 rd Sem.
Course Name	Principles of Electronic Communication
Course Code	ECPC201
Course Co-ordinator Name	Aradhana

Evaluation Scheme

Sr.no.	CourseName	Study scheme (Hrs./Week)	Marks in Evaluation Scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Principles of Electronic Communication	3 (Th.) 1(DCS) 2(Pr.) 1 (DCS Pr)	40	40	60	60
Reference Books		(i) Electronic Communication By George Kennedy				
		(ii) Principles of Communication Engineering By D R Arora , Ishan Publications				
		(iii) Electronic Communication By K S Jamwal, Dhanpat Rai and Co				

Course Outcomes (COs)

CO 1	Ability to define various modulation and demodulation techniques.
CO 2	Identify and solve basic communication problems.
CO 3	Generalization of AM, FM & Spread spectrum techniques
CO 4	Compare & contrast design issues, advantages & disadvantages of analog communication systems
CO 5	Analysis of analog and pulse modulation.

Teaching Plan

Sr.No.	Name of Topic	Proposed Date	Actual Date	Remarks
1	ANALOG MODULATION: Concept of frequency translation,	03-08-2026		
2	Amplitude Modulation: Description of full AM	04-08-2026		
3	Amplitude Modulation: Description of full AM	05-08-2026		
4	Methods of generation & demodulation DSBSC in time & frequency domain	06-08-2026		
5	Methods of generation & demodulation DSBSC in time & frequency domain	10-08-2026		
6	Methods of generation & demodulation SSB in time & frequency domain	11-08-2026		
7	Methods of generation & demodulation SSB in time & frequency domain	12-08-2026		
8	Methods of generation & demodulation VSB in time & frequency domain	13-08-2026		
9	Methods of generation & demodulation VSB in time & frequency domain	17-08-2026		
10	Descriptions of FM signal in time and frequency domains.	18-08-2026		
11	Descriptions of FM signal in time and frequency domains.	19-08-2026		
12	Revision of unit -1	20-08-2026		
13	Revision of unit -1	24-08-2026		
14	2. PULSE ANALOG MODULATION – Definition & its types	25-08-2026		
15	Ideal sampling,	26-08-2026		
16	Sampling theorem,	27-08-2026		
17	Aliasing,	31-08-2026		

18	Aliasing,	01-09-2026		
19	Interpolation,	02-09-2026		
20	Interpolation,	03-09-2026		
21	Natural and flat top sampling in time & frequency domain.	07-09-2026		
22	Natural and flat top sampling in time & frequency domain.	08-09-2026		
23	Class Test -1	09-09-2026		
24	Revision of unit -2	10-09-2026		
25	Quantization and its types	14-09-2026		
26	Uniform quantization.	15-09-2026		
27	Non-uniform quantization.	16-09-2026		
28	PCM and delta modulation	17-09-2026		
29	PCM and delta modulation	21-09-2026		
30	Signal to quantization noise ratio in PCM modulation	22-09-2026		
31	Signal to quantization noise ratio in PCM modulation	23-09-2026		
32	Signal to quantization noise ratio in delta modulation	24-09-2026		
33	Signal to quantization noise ratio in delta modulation	28-09-2026		
34	Revision of unit-3	29-09-2026		
35	4. DIGITAL MODULATION: Introduction	30-09-2026		
36	Baseband transmission	1-10-2026		
37	Baseband transmission	5-10-2026		
38	Line coding (RZ, NRZ)	6-10-2026		
39	Line coding (RZ, NRZ) types	7-10-2026		
40	Class Test-II	8-10-2026		
41	Inter symbol interference (ISI)	12-10-2026		
42	Pulse shaping, modulation	13-10-2026		
43	Pulse shaping, modulation	14-10-2026		
44	Nyquist criterion for distortion free base band transmission	15-10-2026		
45	Nyquist criterion for distortion free base band transmission	19-10-2026		
46	Raised cosine spectrum.	21-10-2026		
47	Raised cosine spectrum.	22-10-2026		
48	Pass band transmission: Geometric interpretation of signals.	27-10-2026		
49	Pass band transmission: Geometric interpretation of signals.	28-10-2026		
50	Orthogonalization	29-10-2026		
51	Orthogonalization	2-11-2026		
52	Revision of unit-5	3-11-2026		
53	SPREAD-SPECTRUM MODULATION: Introduction	4-11-2026		
54	Pseudo-Noise sequences,	5-11-2026		
55	Pseudo-Noise sequences,	9-11-2026		
56	Direct sequence spread spectrum with coherent BPSK	10-11-2026		
57	Direct sequence spread spectrum with coherent BPSK	12-11-2026		
58	Processing gain, probability of error	16-11-2026		
59	Processing gain, probability of error	17-11-2026		
60	Frequency-hop spread spectrum (FHSS).	18-11-2026		
61	Application of spread spectrum; CDMA.	19-11-2026		
62	Application of spread spectrum; CDMA.	23-11-2026		
63	Revision	25-11-2026		
64	Revision	26-11-2026		
65	Revision	30-11-2026		

Assignments

Assignment Serial	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit I, II	16-9-2026		
A-2	Unit III, IV	22-10-2026		

House Test/Class Test

Name of test	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
Class Test-I	30% of syllabus	2 nd week of Sept.		
Class Test-II	Next 30% of syllabus	2 nd week of Oct.		
House Test	80% of syllabus	1 st week of Nov.		

Lab Plan

Sr.no	Name of Practical	Proposed Date		Actual Date		Remarks
		G-I	G-II	G-I	G-II	
1.	Harmonic analysis of a square wave of modulated waveform: measures modulation index	07-08-2026	01-08-2026			
2.	Harmonic analysis of a square wave of modulated waveform: measures modulation index.	14-08-2026	22-08-2026			
3.	To modulate a high frequency carrier with sinusoidal signal to obtain FM signal Doubt Clearing Session	21-08-2026	29-08-2026			
4.	To modulate a high frequency carrier with sinusoidal signal to obtain FM signal	28-08-2026	5-09-2026			
5.	To study and observe the operation of a super heterodyne receiver	11-09-2026	19-09-2026			
6.	To study and observe the operation of a super heterodyne receiver	18-09-2026	26-09-2026			
7.	To modulate a pulse carrier with sinusoidal signal to obtain PWM signal and demodulate it.	25-09-2026	3-10-2026			
8.	To modulate a pulse carrier with sinusoidal signal to obtain PPM signal and demodulate it.	09-10-2026	17-10-2026			
9.	To observe pulse amplitude modulated waveform and its demodulation.	16-10-2026	24-10-2026			
10.	To observe the operation of a PCM encoder and decoder. To consider reason for using digital signal x-missions of analog signals.	23-10-2026	31-10-2026			
11.	To study & observe the amplitude response of automatic gain controller (AGC).	30-10-2026	07-11-2026			
12.	To study & observe the amplitude response of automatic gain controller (AGC).	6-11-2026	21-11-2026			
13.	Viva	13-11-2026	28-11-2026			
14.	Viva	20-11-2026				
15.	Viva	27-11-2026				

(Signature of Teacher)

(Signature of HOD)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
LESSON PLAN

Program Name	Diploma in Electronics & Communication Engg. / 3 rd Sem.
Course/Subject Name	Electronics Devices and Circuits
Course/Subject Code	ECPC205
Course/Subject Co-ordinator Name	Raman Kumar

Evaluation Scheme:

Sr. No.	Subject Name	Study scheme (Hrs/Week)	Marks in Evaluation Scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Electronics Devices and Circuits	Theory- 4 hrs./week Practical- 3 hrs./week	40	40	60	60
Reference Books		(i) Electronics Devices and circuit theory by Boyestad&Nashelsky				
		(ii) Electronics Devices & Circuits by Jacob Millman				

Course Outcomes (COs):

C.O.1	To understand various diodes and transistors used in analog electronics.
C.O.2	Recognition of amplifier configuration and cascading of amplifiers.
C.O.3	Analyze small signal model of FET and MOSFET
C.O.4	Demonstration of rectifier, Feedback and oscillators.

Teaching Plan:

Sr. No.	Name of Topic	Proposed Date	Actual Date	Remarks
	Chapter 1:	3-8-26		
1	Semiconductor and Diodes: Definition and Types.			
2	Extrinsic/Intrinsic, N-type & P-type.	4-8-26		
3	PN Junction Diode – Forward and Reverse Bias Characteristics.	5-8-26		
4	Zener Diode – Principle, characteristics, construction, and working.	7-8-26		
5	Zener Diode – Principle, characteristics, construction, and working.	10-8-26		
6	Diode Rectifiers – Half Wave.	11-8-26		
7	Diode Rectifiers – Full Wave.	12-8-26		
8	Diode Rectifiers – Full Wave.	14-8-26		
9	Filters – C, LC filters.	17-8-26		
10	Filters – PI Filters	18-8-26		
11	Chapter 2: BJT and Types	19-8-26		
12	Bipolar Junction Transistor (BJT): NPN Transistor – Operation.	21-8-26		
13	Bipolar Junction Transistor (BJT): NPN Transistor – Characteristics.	24-8-26		
14	Bipolar Junction Transistor (BJT): PNP Transistor – Operation.	25-8-26		
15	Bipolar Junction Transistor (BJT): PNP Transistor – Characteristics.	26-8-26		
16	Common Base Configuration – characteristics and working.	28-8-26		
17	Common Emitter Configuration – characteristics and working.	31-8-26		

Raman Kumar

18	Common Collector Configuration – characteristics and working.	1-9-26		
19	High frequency model of BJT.	2-9-26		
20	Classification of amplifiers.	7-9-26		
21	Classification of amplifiers.	8-9-26		
22	Class Test - I	9-9-26		
23	Negative feedback	11-9-26		
24	Chapter 3: Field Effect Transistors: FET	14-9-26		
25	FET – Working Principle, Classification.	15-9-26		
26	MOSFET Small Signal model.	16-9-26		
27	N-Channel MOSFET – characteristics, enhancement, and depletion mode	18-9-26		
28	N-Channel MOSFET – characteristics, enhancement, and depletion mode	21-9-26		
29	P-Channel MOSFET – characteristics, enhancement, and depletion mode	22-9-26		
30	P-Channel MOSFET – characteristics, enhancement, and depletion mode	23-9-26		
31	MOS- FET as a Switch	25-9-26		
32	Common Source Amplifiers.	28-9-26		
33	Uni-Junction Transistor – equivalent circuit and operation	29-9-26		
34	Chapter 4: SCR – Construction, operation	30-9-26		
35	SCR – Working, characteristics.	5-10-26		
36	DIAC - Construction, operation	6-10-26		
37	DIAC - Working, characteristics.	7-10-26		
38	TRIAC - Construction, operation	9-10-26		
39	TRIAC - Construction, operation	12-10-26		
40	TRIAC - working, characteristics.	13-10-26		
41	Class Test - II	14-10-26		
42	SCR as a Switch	16-10-26		
43	MOSFET as a Switch	19-10-26		
44	DIAC as a bidirectional switch.	21-10-26		
45	Comparison of SCR, DIAC, TRIAC, MOSFET.	23-10-26		
46	Chapter 5: Feedback Amplifiers	27-10-26		
47	Feedback Amplifiers – Properties of negative Feedback	28-10-26		
48	Impact of feedback on different parameters.	30-10-26		
49	House Test	2-11-26		
50	House Test	3-11-26		
51	House Test	4-11-26		
52	Basic Feedback Amplifier Topologies: Voltage Series	6-11-26		
53	Diwali Vacations	9-11-26		
54	Diwali Vacations	10-11-26		
55	Diwali Vacations	11-11-26		
56	Basic Feedback Amplifier Topologies: Voltage Shunt	13-11-26		
57	Basic Feedback Amplifier Topologies: Current Series	16-11-26		
58	Basic Feedback Amplifier Topologies: Current Shunt	17-11-26		
59	Oscillator – Basic Principles	18-11-26		
60	Crystal Oscillator	20-11-26		
61	Non-linear/ Pulse Oscillator	23-11-26		
62	Revision	25-11-26		
63	Revision	27-11-26		

Assignments:

Assignment	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	30% of syllabus	3rd week of September		
A-2	Next 30% of syllabus	2nd week of October		
A-3	Next 20% of syllabus	2nd week of November		

House Test/Class Test:

Name of test	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
Class test-I	30% of syllabus	09-09-2026		
Class test-II	Next 30% of syllabus	14-10-2026		
House test	80% of syllabus	1st week of Nov.		

Lab Plan:

Sr. No.	Name of Practical	Proposed Date		Actual Date		Remarks
		G1	G2	G1	G2	
1	Construct the circuit and plot the VI characteristics of the PN Junction Diode, find the cut in voltage	22-08-2026	07-08-2026			
2	Construct the circuit and plot the characteristics of a Zener Diode. Find the breakdown voltage	29-08-2026	14-08-2026			
3	Construct a Half Wave Rectifier and obtain regulation characteristics – Without Filters and with Filters Compare the results	05-09-2026	21-08-2026			
4	Construct a Full Wave center tap Rectifier and obtain regulation characteristics – Without Filters and with Filters Compare the results	19-09-2026	11-09-2026			
5	Construct a Bridge Rectifier and obtain regulation characteristics – Without Filters and with Filters	26-09-2026	18-09-2026			
6	Obtain the characteristics of DIAC and TRIAC	03-10-2026	25-09-2026			
7	Simulate half wave, full wave and bridge rectifier using simulation tool like PSpice/ ORCAD/ Multisim.	17-10-2026	09-10-2026			
8	Simulate half wave, full wave and bridge rectifier using simulation tool like PSpice/ ORCAD/ Multisim.	24-10-2026	16-10-2026			
9	Develop a simulation model for Voltage Series and Voltage Shunt Feedback Amplifiers Or Develop circuits for Voltage Series and Voltage Shunt Feedback Amplifiers and obtain output plots. Compare the results with the simulation model.	31-10-2026	23-10-2026			



Department of Eltx.& Comm. Engg.

LESSON PLAN

Program Name	Diploma in Eltx. & Comm. Engineering / 3 rd Sem.
Course Name	Digital Electronics
Course Code	ECPC-209
Course Co-ordinator Name	Sh. Navjot Singh Suryal

Evaluation Scheme

Sr. no.	CourseName	Study scheme (Hrs./Week)	Marks in Evaluation Scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Digital Electronics	Th: 3+1 (DCS) Pr : 2+1 (DCS)	40	40	60	60
Reference Books	(i) Digital Electronics by KS Jamwal, Dhanpat Rai					
	(ii) Digital Electronics by RP Jain, Tata McGraw Hill					
	(iii) Digital Electronics and Applications by Malvino Leach, Tata McGraw Hill					

Course Outcomes (COs)

CO 1	Recall and order the logic gates and their circuits.
CO 2	Design combinational and sequential circuits.
CO 3	Design and implement hardware circuit to test performance and application
CO 4	Recognition of various memory devices.

Teaching Plan

Sr. No.	Name of Topic	Proposed Date	Actual Date	Remarks
1.	Number Systems & Boolean Algebra: Introduction to different number systems – Binary, Octal, decimal, Hexadecimal.	03-08-2026		
2.	Conversion from one number system to another.	04-08-2026		
3.	Conversion from one number system to another.	06-08-2026		
4.	Conversion from one number system to another.	07-08-2026		
5.	Conversion from one number system to another.	10-08-2026		
6.	Boolean variables – Rules and laws of Boolean algebra.	13-08-2026		
7.	Boolean variables – Rules and laws of Boolean algebra.	14-08-2026		
8.	De-Morgan's Theorem.	17-08-2026		
9.	De-Morgan's Theorem.	18-08-2026		
10.	Karnaugh Maps and their use for simplification of Boolean expressions	20-08-2026		
11.	Karnaugh Maps and their use for simplification of Boolean expressions	21-08-2026		
12.	Karnaugh Maps and their use for simplification of Boolean expressions	24-08-2026		
13.	Logic Gates: Logic Gates – AND, OR ; Symbolic representation and truth table	25-08-2026		
14.	NOT, NAND Symbolic representation and truth table	27-08-2026		
15.	NOR, XOR, XNOR Symbolic representation and truth table	28-08-2026		
16.	Implementation of Boolean expressions and Logic Functions using gates. Simplification of expressions.	31-08-2026		
17.	Implementation of Boolean expressions and Logic Functions using gates. Simplification of expressions.	01-09-2026		

18	Implementation of Boolean expressions and Logic Functions using gates. Simplification of expressions.	03-09-2026		
19	CLASS TEST-I	07-09-2026		
20	Combinational Logic Circuits: Arithmetic Circuits – Addition, Subtraction, 1's & 2's Complement	08-09-2026		
21	1's & 2's Complement	10-09-2026		
22	Half Adder, Full Adder	11-09-2026		
23	Half Adder, Full Adder	14-09-2026		
24	Half Subtractor, Full Subtractor	15-09-2026		
25	Parallel and Series Adders Encoder	17-09-2026		
26	Decoder	18-09-2026		
27	Multiplexer – 2 to 1 MUX and their Applications	21-09-2026		
28	4 to 1 MUX and their Applications	22-09-2026		
29	8 to 1 MUX and their Applications	24-09-2026		
30	Demultiplexer – 1-2 DEMUX, 1-4 DEMUX	25-09-2026		
31	1- 8 DEMUX	28-09-2026		
32	Sequential Logic Circuits: Flip Flops , Triggering	29-09-2026		
33	SR Flip Flop	01-10-2026		
34	JK Flip Flop	05-10-2026		
35	T, D Flip Flops	06-10-2026		
36	JK-MS Flip Flop	08-10-2026		
37	Counters – 4bit Up – Down Counters	09-10-2026		
38	CLASS TEST-II	12-10-2026		
39	Decade Counter- Mod 3	13-10-2026		
40	Asynchronous/ Ripple Counter	15-10-2026		
41	Decade Counter- Mod 7	16-10-2026		
42	Johnson Counter	19-10-2026		
43	Ring Counter	22-10-2026		
44	Registers – 4bit Shift Register: Serial In Serial Out, Serial In Parallel Out	23-10-2026		
45	Registers – 4bit Shift Register: Parallel In Serial Out, Parallel In Parallel Out	27-10-2026		
46	Memory Devices: Classification of Memories – RAM Organization	29-10-2026		
47	Address Lines and Memory Size	12-11-2026		
48	Static RAM, Bipolar RAM, Cell Dynamic RAM,	13-11-2026		
49	D RAM, DDR RAM.	16-11-2026		
50	Read only memory – ROM organization,	17-11-2026		
51	Expanding memory, PROM, EPROM, EEPROM	19-11-2026		
52	Flash memory	20-11-2026		
53	Data Converters – Digital to Analog converters	23-11-2026		
54	Analog to Digital Converters	26-11-2026		
55	Revision	27-11-2026		

Assignments

Assignment Serial	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit I,II,	09-09-2026		
A-2	Unit III, IV,V	09-10-2026		

House Test/Class Test

Name of test	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
Class Test-I	Unit I,II	07-09-2026		
Class Test-II	Unit III, IV	12-10-2026		

30	Revision				
31	DCS	25-11-2026	19-11-2026		
32	Revision	25-11-2026			
			26-11-2026		



(Signature of HOD)



(Signature of Teacher)

LESSON PLAN

Program Name	ELTX & COMM ENGG. / 3 rd Sem.
Course/Subject Name	ELECTRICAL CIRCUITS & NETWORKS
Course/Subject Code	ES 104
Course/Subject Coordinator Name	ASHOK KUMAR

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	ELECTRICAL CIRCUITS & NETWORKS	TH [3+1(DCS)	40	-	60	-
Reference books			1. Networks and Systems Ashfaq Husain Khanna Publishing House. 2. Network Analysis M. E. Van Valkenburg Prentice Hall of India. 3. Engineering Circuit Analysis W. H. Hayt, J. E. Kemmerly and S. M. Durbin McGraw Hill. 4. Electrical Circuits Joseph Edminister Schaum's Outline, Tata McGraw Hill. 5. Basic Circuit Theory Lawrence P. Huelsma Prentice Hall of India. 6. Network & Systems D. Roy Choudhury Wiley Eastern Ltd. 7. Linear Circuit Analysis De Carlo and Lin Oxford Press.			

Course Outcomes: After the completion of the course the student will be able to:

- Demonstration of network theorems and network graph
- Describe the response and state of 1st order & 2nd order circuit.
- Define the time domain & frequency domain analysis.

Teaching Plan:

Lecture No.	Topic Covered	Proposed date	Actual Date
1	Basics of Network and Network Theorem: Node and Mesh Analysis	01-08-2026	
2	Node and Mesh Analysis	03-08-2026	
3	Superposition Theorem,	04-08-2026	
4	Superposition Theorem,	06-08-2026	
5	Thevenin Theorem	10-08-2026	
6	Thevenin Theorem	11-08-2026	
7	Norton Theorem	13-08-2026	
8	Norton Theorem	17-08-2026	
9	Maximum Power transfer theorem	18-08-2026	
10	Maximum Power transfer theorem	20-08-2026	
11	Reciprocity Theorem	22-08-2026	
12	Reciprocity Theorem	24-08-2026	
13	Graph Theory: Concept of Graph	25-08-2026	
14	Concept of Graph	27-08-2026	
15	Node Tree of network, and incidence matrix	29-08-2026	
16	Node Tree of network, and incidence matrix	31-08-2026	
17	Node Tree of network, and incidence matrix	01-09-2026	
18	Analysis of resistive network using cut-set and tie-set	03-09-2026	
19	Analysis of resistive network using cut-set and tie-set	05-09-2026	
20	Duality Theorem and their application in the electrical circuits	07-09-2026	
21	Duality Theorem and their application in the electrical circuits	08-09-2026	
22	Time Domain and Frequency Domain Analysis: Solution of first and second order differential equations for Series and parallel R-L, R-C, R-L-C circuits.	10-09-2026	

53	Introduction of Hybrid Parameters	16-11-2026	
54	Introduction of Hybrid Parameters	17-11-2026	
55	Power factor	19-11-2026	
56	Power factor	21-11-2026	
	Revision classes	23-11-2026	
	Revision classes	26-11-2026	
	Revision classes	28-11-2026	

Assignments:

Assignment serial	Contents of syllabus covered	Actual date	Remarks
A-1	Basics of Network and Network Theorem Graph Theory		
A-2	Time Domain and Frequency Domain Analysis Trigonometric and exponential Fourier series		
A-3	Two Port Network		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed date	Actual date	Remarks
CT-I	30% of the syllabus	As per Academic Calender		
CT-II	Next 30% of the syllabus	As per Academic Calender		
House Test	80% of the syllabus	As per Academic Calender		


 (Signature of Teacher)
 (ASHOK KUMAR)


 (Signature of HOD)