

LESSON PLAN					
Name of the Faculty : Ms. Anju					
Semester : 1st					
Subject : FEE					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 02 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical day	Topic
1 st	30-07-2026 to 31-07-2026	1	Unit-I Introduction to Electrical Fundamentals & related terms	1	Introduction
		2	Nature of Electricity, Charge, free electrons,		
		3	Electric current, Electric potential and potential difference, Electric current, Electrical Energy,		
2 nd	03-08-2026 to 07-08-2026	4	Electrical power and their unit. Resistance: Definition, Unit,	2	Familiarization of measuring instruments viz voltmeter, ammeter,
		5	Laws of resistance, conductivity and resistivity,		
		6	Effect of temperature on resistance, Temperature coefficient of resistance,		
3 rd	10-08-2026 to 14-08-2026	7	Types of resistance & their applications,	3	Familiarization of measuring instruments viz CRO, Wattmeter and multi-meter and other accessories.
		8	Color coding of resistance.		
		9	Inductors with their wattage consideration.		
4 th	17-08-2026 to 21-08-2026	10	capacitors with their wattage consideration.	4	To measure (very low) resistance of an ammeter and (very high) resistance of a voltmeter
		11	Factors affecting capacitance of a capacitor. Capacitors in series		
		12	Capacitors in parallel.		
5 th	24-08-2026 to 28-08-2026	13	Revision	5	To verify Ohm's law by drawing a graph between voltage and current.
		14	Unit II Ohm's law and its verification		
		15	Kirchhoff's current law		
6 th	31-08-2026 to 04-09-2026	16	Kirchhoff's voltage law.	6	To observe change in resistance of a bulb in hot and cold conditions, using voltmeter and ammeter.
		17	Star – Delta connections.		
		18	Voltage and current source, symbol and graphical representation,		
7 th	07-09-2026 to 11-09-2026	19	characteristics of ideal and practical sources	7	To determine the value of resistance using colour coding method.
		20	Mesh and Loop analysis, Revision		
		21	Thevenin's theorem, Revision		

8 th	14-09-2026 to 18-09-2026	22	Assignment No. 1,Revision	8	Internal Viva,Verification of Kirchhoff's Current and Voltage Laws in a DC circuit on bread board.
		23	1st Sessional Test		
		24	Discussion on sessional test		
9 th	21-09-2026 to 25-09-2026	25	Norton's theorem	9	Verification of Thevenin's theorem and Verification of Norton's theorem.
		26	Superposition Theorem,		
		27	Maximum Power Transfer Theorem. Unit III intro to AC circuits		
10 th	28-09-2026 to 02-10-2026	28	AC Fundamentals: Cycle, frequency, time period, amplitude, difference between AC and DC,	10	Verification of Maximum Power theorem.
		29	instantaneous value, average value, r.m.s. value, maximum value, form factor and peak factor.		
		30	Concept of conductance, susceptance, admittance, impedance and concept of inductive and capacitive reactance		
11 th	05-10-2026 to 09-10-2026	31	RL-RC Circuits Introduction to series and parallel resonance and its conditions	11	Alternating voltage applied to resistance and inductance, resistance and capacitance in series.
		32	Power in pure resistance, inductance and capacitance, power in combined RLC circuits.		
		33	Power factor, active and reactive power: Definition and their significance.		
12 th	12-10-2026 to 16-10-2026	34	Assignment No. 2,Revision	12	Internal Viva,To find the voltage current relationship in a single phase R-L circuits and draw their impedance triangles and To find the voltage current relationship in a single R-C Series circuits, and draw their impedance triangles.
		35	2nd Sessional Test		
		36	Discussion on sessional test		
13 th	19-10-2026 to 23-10-2026	37	Unit IV Concept of electro-magnetic field produced by flow of electric current, magnetic circuit,	13	Measurement of power and power factor in a single phase R,L,C. circuit
		38	concept of magneto-motive force (MMF), flux, reluctance		
		39	permeability, analogy between electric and magnetic circuit.		
14 th	26-10-2026 to 30-10-2026	40	Faraday's laws of electro-magnetic induction, principles of self and mutual induction, self and mutually induced emf.	14	Calculation of active and reactive powers in the circuit and To test a lead - acid storage battery and measure its specific gravity.
		41	Energy stored in an inductor, series and parallel combination of inductors.		
		42	Unit V Basic idea of primary and secondary cells.		

15 th	02-11-2026 to 06-11-2026	43	Construction, working principle and applications of Lead-Acid, Nickel-Cadmium,	15	Care and maintenance of lead-acid battery.
		44	Li- Ion batteries. Series and parallel connections of batteries.		
		45	Introduction to maintenance of free batteries.		
16 th	09-11-2026 to 13-11-2026	46	Disposal of batteries	16	Visit to a nearby Power Station.
		47	General idea of solar cells, solar panels and their applications.		
		48	Assignment No. 3,Revision		
17 th	16-11-2026 to 20-11-2026	49	3rd Sessional test	17	Internal Viva
		50	Discussion on sessional test		
		51	Discussion on Important questions		

LESSON PLAN					
Name of the Faculty : Ms. Anju					
Semester : 3rd					
Subject : ADC					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical Day	Topic
1 st	30-07-2026 to 31-07-2026	1	Unit I Introduction to communication systems(analog and Digital)	1st	Introduction to Communication Practicals and kits
		2	Intro to Modulation and its definition		
2 nd	03-08-2026 to 07-08-2026	3	Modulation:-Need for modulation	2nd	Observe wave forms at input and output of pulse code modulator with CRO
		4	frequency translation and demodulation in communication systems	3rd	Revision
		5	Basic scheme of a modern communication system		
3 rd	10-08-2026 to 14-08-2026	6	Revision of Unit I	4th	To observe an AM wave on CRO produced by a standard signal generator using internal and external modulation
		7	Unit II Amplitude modulation:-Derivation of expression for an amplitude modulated wave	5th	Revision
		8	Carrier and side band components		
4 th	17-08-2026 to 21-08-2026	9	Modulation index,Spectrum and BW of AM Wave	6th	To observe an AM wave on CRO produced by a standard signal generator using internal and external modulation
		10	Revision, Relative power distribution in carrier and side bands.	7th	Revision
		11	Elementary idea of DSB-SC Modulation		
5 th	24-08-2026 to 28-08-2026	12	SSB-SC	8th	Revision
		13	ISB Modulation	9th	To measure the modulation index of the wave obtained in above practical
		14	VSB modulations		
6 th	31-08-2026 to 04-09-2026	15	Comparison between DSB-SC,SSB-SC,ISB & VSB, Applications	10th	Revision
		16	Unit III. Expression for frequency modulated wave and its frequency spectrum,	11th	Revision
		17	Modulation index,maximum frequency deviation,deviation ratio		

7 th	07-09-2026 to 11-09-2026	18	BW of FM signals, Carson's rule, Effect of noise on FM carrier,	12th	Viva
		19	Noise triangle	13th	To obtain an FM wave and measure the frequency deviation for different modulating signals.
		20	Assignment No. 1, Revision		
8 th	14-09-2026 to 18-09-2026	21	1st Sessional Test	14th	Revision
		22	Discussion on 1st Sessional Test	15th	Observe wave forms at input and output of ASK modulators
		23	Role of limiter, Need for pre-emphasis and de-emphasis		
9 th	21-09-2026 to 25-09-2026	24	Capture effect, Comparison of FM and AM in communication systems	16th	Revision
		25	Unit 4. Basic block diagram of digital and data communication systems.	17th	Observe wave forms at input and output of PSK modulators
		26	comparison between digital and analog communication systems		
10 th	28-09-2026 to 02-10-2026	27	Sampling theorem and its basic concept	18th	Revision
		28	PAM, PWM	19th	Revision
		29	PPM, Quantization and Quantization error		
11 th	05-10-2026 to 09-10-2026	30	DELTA Modulation	20th	Viva
		31	ADAPTIVE DELTA Modulation	21th	Observe wave forms at input and output of FSK modulators
		32	Frequency hopping spread spectrum		
12 th	12-10-2026 to 16-10-2026	33	Assignment No. 2, Revision	22th	Observe wave forms at input and output of FSK modulators
		34	2nd Sessional test	23th	Revision
		35	Discussion on 2nd Sessional Exam		
13 th	19-10-2026 to 23-10-2026	36	Unit 5. Basic block diagram of Amplitude shift keying (ASK)	24th	Observe wave forms at input and output of QPSK modulators
		37	Interrupted continuous wave (ICW), Two	25th	Revision
		38	Frequency Shift keying (FSK)		
14 th	26-10-2026 to 30-10-2026	39	Phase shift keying (PSK),	26th	Revision
		40	Quadrature Phase Shift Keying (QPSK)	27th	Revision
		41	Revision of Unit I		
15 th	02-11-2026 to 06-11-2026	42	Revision of Unit II	28th	Revision
		43	Revision of Unit III	29th	Revision
		44	Revision of Unit IV		
16 th	09-11-2026 to 13-11-2026	45	Revision of Unit V	30th	Revision
		46	Revision	31st	Revision
		47	Assignment No. 3, Revision		
17 th	16-11-2026 to 20-11-2026, 23-11-2026	48	3rd Sessional test	32th	Revision
		49	Discussion on Sessional Test	33th	Revision
		50	Discussion on important question		
		51	Discussion on important question		

LESSON PLAN					
Name of the Faculty : Mr. Suresh Kumar					
Semester : 3rd					
Subject : Electronics Devices & Circuit II					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 02 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical Day	Topic
1 st	30-07-2026 to 31-07-2026	1	Unit 1. Need for multistage amplifier, Gain of multistage amplifier	1st	Plot the frequency response of two stage RC coupled amplifier and calculate the bandwidth.
2 nd	03-08-2026 to 07-08-2026	2	RC coupled frequency response and bandwidth	2nd	To measure the gain of push-pull amplifier
		3	transformer coupled frequency response and bandwidth		
		4	direct coupled and their frequency response and bandwidth		
3 rd	10-08-2026 to 14-08-2026	5	Revision of Unit I	3rd	Revision
		6	Unit 2. Difference between voltage and power amplifiers		
		7	Importance of impedance matching in amplifiers		
4 th	17-08-2026 to 21-08-2026	8	Class A, Class B, Class AB, and Class C amplifiers	4th	To measure the voltage gain of emitter follower circuit and plot its frequency response
		9	collector efficiency and Distortion in class A,B,C.		
		10	Single ended power amplifiers, Graphical method of calculation (without derivation) of output power		
5 th	24-08-2026 to 28-08-2026	11	Heat dissipation curve and importance of heat sinks	5th	To observe the output wave form of Hartley Oscillator
		12	Push-pull amplifier		
		13	complementary symmetry push-pull amplifier		
6 th	31-08-2026 to 04-09-2026	14	Single tuned voltage amplifiers frequency response characteristics	6th	Viva
		15	double tuned voltage amplifiers frequency response characteristics		
		16	Revision of Unit II		
7 th	07-09-2026 to 11-09-2026	17	Unit 3 Basic principles and types of feedback	7th	To observe the output wave form of Colpitt's Oscillator
		18	Derivation of expression for gain of an amplifier employing feedback		
		19	Revision		
8 th	14-09-2026 to 18-09-2026	20	Assignment No. 1, Revision	8th	To observe the output wave form of RC phase shift oscillator
		21	1st Sessional Test		
		22	Discussion on 1st Sessional Test		

9 th	21-09-2026 to 25-09-2026	23	Effect of feedback (negative) on gain, stability, distortion and bandwidth of an amplifier	9th	To observe the output wave form of Wein bridge Oscillator
		24	RC coupled amplifier with emitter bypass capacitor		
		25	Emitter follower amplifier and its application		
10 th	28-09-2026 to 02-10-2026	26	Revision of Unit III	10th	Viva
		27	Unit 4. Use of positive feedback		
		28	Barkhausen criterion for oscillations		
11 th	05-10-2026 to 09-10-2026	29	Different oscillator circuits-tuned collector	11th	Use of IC 555 as mono astable multivibrator and observe the output for different values of RC
		30	Hartley and Colpitts oscillator		
		31	phase shift, Wien's bridge Oscillator, crystal oscillator		
12 th	12-10-2026 to 16-10-2026	32	Assignment No. 2, Revision	12th	Use of IC 555 as astable multivibrator and observe the output at different duty cycles
		33	2nd Sessional test		
		34	Discussion on Sessional Test		
13 th	19-10-2026 to 23-10-2026	35	Unit 5. Working principle of transistor as switch	13th	To use IC 741 (op-amplifier) as i) Inverter, ii) Adder, iii) Subtractor iv) Integrator
		36	Astable multivibrator		
		37	Monostable and bistable multivibrator		
14 th	26-10-2026 to 30-10-2026	38	Block diagram of IC555 and its working and	14th	Revision
		39	IC555 as monostable and astable multi- vibrator, bistable multivibrator		
		40	Characteristics of an ideal operational amplifier and its block diagram		
15 th	02-11-2026 to 06-11-2026	41	IC-741 and its pin configuration	15th	Revision
		42	Definition of differential voltage gain, CMRR, PSRR, slew rate and input offset current		
		43	Operational amplifier as an inverter, scale changer, adder		
16 th	09-11-2026 to 13-11-2026	44	Subtractor, differentiator, and integrator	16th	Viva
		45	Revision of Unit V		
		46	Revision		
17 th	16-11-2026 to 20-11-2026, 23-11-2026	47	Assignment No. 3, Revision	17th	Viva
		48	3rd Sessional test		
		49	Discussion on Sessional Test		
		50	Discussion on Important question		

LESSON PLAN			
Name of the Faculty : Mr. Suresh Kumar			
Semester : 3rd			
Subject : Electronics Design Simulation			
Lesson Plan duration : 30-07-2026 to 23-11-2026			
Work Load Per Week : 04 HOURS (PRACTICAL)			
Week	Date	Theory	
		Lecture day	Topic (including assignment/ test)
1 st	30-07-2026 to 31-07-2026	1	Unit 1. Electronic Design Selection and use of commonly used active and passive components using bread board.
2 nd	03-08-2026 to 07-08-2026	2	Testing of active and passive components Develop skills in assembly of components
		3	UNIT II PCB board materials, their characteristics and plating, corrosion and its prevention.
3 rd	10-08-2026 to 14-08-2026	4	Photo processing, screen printing, etching, drilling, surface treatment and protection from harsh environments,
		5	plated through holes, double sided and multilayer PCBs.
4 th	17-08-2026 to 21-08-2026	6	Assembly of circuits on PCB, soldering and de-soldering techniques,
		7	Role of tinning, flow and wave soldering, solderability, composition of solder, Edge connector.
5 th	24-08-2026 to 28-08-2026	8	Revision
		9	Unit 3. Electronic circuit design and simulation using EDA Tools like EAGLE/Circuit Maker/ORCAD etc. of the following types: i. Analog Circuits
6 th	31-08-2026 to 04-09-2026	10	ii. Digital Circuits
		11	iii. Power Supplies

7th	07-09-2026 to 11-09-2026	12	Viva
		13	Unit 4. Electronic layout design and simulation using EDA Tools like EAGLE/Circuit Maker/ORCAD etc.
8th	14-09-2026 to 18-09-2026	14	Development of Top/Bottom layer mask, Legend Print/Silk Screen mask, Solder mask. Pattern transfer using photo-processing, Etching.
		15	Assembly of circuits on PCB, component soldering, PCB fabrication and testing.
9th	21-09-2026 to 25-09-2026	16	electronic circuits for PCB fabrication and testing: 1. Regulated power supply 2. Timers using 555 and other oscillators
		17	3. Touch plate switches – transistorized or 555 based
10th	28-09-2026 to 02-10-2026	18	4. Door bell / cordless bell
		19	5. Clapping switch and IR switch
11th	05-10-2026 to 09-10-2026	20	6. Blinkers
		21	7. Sirens and hooters
12th	12-10-2026 to 16-10-2026	22	8. Electronic dice
		23	Viva
13th	19-10-2026 to 23-10-2026	24	9. Battery charger, mobile charger
		25	10. Fire/smoke/intruder alarm
14th	26-10-2026 to 30-10-2026	26	11. Liquid level controller
		27	12. Counters
15th	02-11-2026 to 06-11-2026	28	13. Combination locks
		29	14. Electronics musical instruments
16th	09-11-2026 to 13-11-2026	30	15. Electronic Ballasts
		31	16. Emergency light
17th	16-11-2026 to 20-11-2026, 23-11-2026	32	17. Fan regulator
		33	Viva

LESSON PLAN					
Name of the Faculty : Ms. Chetna					
Semester : 3rd					
Subject : Digital Electronics					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/test)	Practical Day	Topic
1 st	30-07-2026 to 31-07-2026	1	Introduction about subject. Distinction between analog and digital signal. Applications and advantages of digital signals.	1 st	Introduction to digital electronics Practicals and kits
		2	Binary, octal and hexadecimal number system.		
		3	Conversion from decimal and hexadecimal to binary and vice-versa.	2 nd	Verification and interpretation of truth tables for AND, OR, NOT, NAND, NOR and Exclusive OR (EXOR) and Exclusive NOR(EXNOR) gates
2 nd	03-08-2026 to 07-08-2026	4	Binary addition and subtraction including binary points. 1's and 2's complement method of addition/subtraction.	3 rd	Revision
		5	Concept of code, weighted and non-weighted codes, examples of 8421, BCD, excess-3 and Gray code.		
		6	Concept of parity, single and double parity and error detection	4 th	Realisation of logic functions with the help of NAND or NOR gates
3 rd	10-08-2026 to 14-08-2026	7	Unit II Concept of negative and positive logic	5 th	Revision
		8	Definition, symbols and truth tables of NOT, AND, OR, NAND gates.		
		9	Definition, symbols and truth tables of NOR, EXOR Gates, NAND and NOR as universal gates.	6 th	To design a half adder and full adder using XOR and NAND gates and verification of its operation.
4 th	17-08-2026 to 21-08-2026	10	Introduction to TTL and CMOS logic families	7 th	Revision
		11	Postulates of Boolean algebra, De Morgan's Theorems.		
		12	Implementation of Boolean (logic)	8 th	To design of a full adder circuit using XOR and NAND gates and verify its operation
5 th	24-08-2026 to 28-08-2026	13	Karnaugh map (upto 4 variables) and simple application in developing combinational logic circuits	9 th	Revision
		14	Revision		To design circuit for 7 segment display ICs.
		15	Revision	10 th	Revision
6 th	31-08-2026 to 04-09-2026	16	Unit III Half adder circuit, design and implementation.	11 th	Verification of truth table for positive edge triggered, negative edge triggered, level triggered IC flip-flops (At least one IC each of D latch , D flip-flop, JK flip-flops).
		17	Full adder circuit, design and implementation.		Revision
		18	4 bit adder circuit, Four bit decoder circuits for 7 segment display and decoder/driver Ics	12 th	
7 th	07-09-2026 to 11-09-2026	19	Basic functions and block diagram of MUX, DEMUX and Encoder	13 th	Verification of truth table for encoder and decoder ICs.
		20	Basic functions and block diagram of DEMUX		Revision
		21	Basic functions and block diagram of Encoder	14 th	
8 th	14-09-2026 to 18-09-2026	22	Assignment No. 1, Revision	15 th	Viva
		23	1 st Sessional Test		Verification of truth table for Multiplexers and x and De-Multiplexers
		24	Discussion on sessional test	16 th	

9 th	21-09-2026 to 25-09-2026	25	Concept and types of latch with their working and applications,	17th	Revision
		26	Operation using waveforms and truth tables of RS, T F/F.		To design a 4 bit SISO, SIPO, PISO, PIPO shift registers using JK/D flip flops and verification of their operation.
		27	Operation using waveforms and truth tables of D F/F.	18th	
10 th	28-09-2026 to 02-10-2026	28	Master/Slave JK flip flops. Race around condition.	19th	Revision
		29	Difference between a latch and a flip flop		To design a 4 bit ring counter and verify its operation.
		30	Introduction to Asynchronous counters and synchronous counters.	20th	
11 th	05-10-2026 to 09-10-2026	31	Binary counters	21th	Revision
		32	Divide by N ripple counters		Use of Asynchronous Counter ICs (7490 or 7493)
		33	Decade counter, Ring counter	22th	
12 th	12-10-2026 to 16-10-2026	34	Assignment No. 2, Revision	23th	Revision
		35	2nd Sessional Test		Viva
		36	Introduction and basic concepts including shift left and shift right.	24th	
13 th	19-10-2026 to 23-10-2026	37	Serial in parallel out, serial in serial out shift register.	25th	To design and verification of A/D converter
		38	Parallel in serial out, parallel in parallel out shift register.		Revision
		39	Universal shift register	26th	
14 th	26-10-2026 to 30-10-2026	40	Working principle of A/D converters	27th	To design and verification of D/A converter
		41	Brief idea about different techniques of A/D conversion and study of Stair step Ramp A/D converter		Revision
		42	Dual Slope A/D converter	28th	
15 th	02-11-2026 to 06-11-2026	43	Successive Approximation A/D Converter	29th	To design and verification of 74181 ALU IC
		44	Working principle of D/A converters Binary Weighted D/A converter		Viva
		45	R/2R ladder D/A converter Applications of A/D and D/A converter.	30th	
16 th	09-11-2026 to 13-11-2026	46	Memory organization, classification of semiconductor memories, RAM, ROM, PROM	31st	Revision
		47	EPROM, EEPROM, static and dynamic RAM		Revision
		48	introduction to 74181 ALU IC	32th	
17 th	16-11-2026 to 20-11-2026	49	Assignment No. 3, Revision	33th	Viva
		50	3rd Sessional Test		Revision
		51	Discussion on sessional test	34th	

LESSON PLAN					
Name of the Faculty : Ms. Anju					
Semester : 5th					
Subject : Instrumentation					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical Day	Topic
1 st	30-07-2026 to 31-07-2026	1	Introduction to measurement and instruments	1st	Introduction to Instrumentation Practicals and kits
		2	UNIT-I Measurements Importance of measurement, basic measuring		
2 nd	03-08-2026 to 07-08-2026	3	advantages and limitations of each measuring systems.	2nd	To draw the characteristics of a potentiometer
		4	Transducers Working principles, construction and use of various transducers like resistance transducers	3rd	Revision
		5	inductance transducers		
3 rd	10-08-2026 to 14-08-2026	6	capacitance transducers	4th	Use of variable capacitive transducer.
		7	electromagnetic, piezo-electric type transducers	5th	Revision
		8	Revision of Unit I		
4 th	17-08-2026 to 21-08-2026	9	UNIT II Measurement of Displacement and Strain wire	6th	To measure linear displacement using LVDT
		10	LVDT, strain gauge	7th	Revision
		11	strain gauges and their different types		
5 th	24-08-2026 to 28-08-2026	12	Gauge factor, gauge materials and their selections.	8th	Use of different proximity Switches
		13	Use of electrical strain gauges,	9th	Revision
		14	strain gauge bridges		
6 th	31-08-2026 to 04-09-2026	15	Proximity switches	10th	To study the use of electrical strain gauge
		16	Unit III force measuring devices	11th	Revision
		17	Different types of force measuring devices		
7 th	07-09-2026 to 11-09-2026	18	load measurements by using elastic transducers	12th	Viva
		19	electrical strain gauges, Load cell	13th	To study weighing machine using load cell
		20	measurements of torque by strain gauges		
8 th	14-09-2026 to 18-09-2026	21	Revision	14th	Revision
		22	Assignment No. 1, Revision	15th	To measure temperature using a thermo-couple
		23	1st Sessional Test		
9 th	21-09-2026 to 25-09-2026	24	Discussion on 1st Sessional Test	16th	Revision
		25	inductive transducers, Speed measurement	17th	To measure pH value of given solution
		26	different methods of speed measurements.		
10 th	28-09-2026 to 02-10-2026	27	Torque measurements and their methods	18th	Revision
		28	Revision of Unit III	19th	Use of magnetic and ultrasonic flow meters
		29	UNIT IV Pressure Measurement Working principle, construction and applications of pressure cells		

11 th	05-10-2026 to 09-10-2026	30	Bourdon pressure gauges, Revision	20th	Viva
		31	electrical pressure pickups, Revision	21st	Use of thermistor as ON/OFF switch
		32	Flow Measurement Basic principles of magnetic flow meter, ultrasonic flow meters		
12 th	12-10-2026 to 16-10-2026	33	Revision of Unit IV	22nd	Revision
		34	Assignment No. 2, Revision	23rd	To measure temperature using RTD
		35	2nd Sessional test		
13 th	19-10-2026 to 23-10-2026	36	Discussion on 2nd Sessional Exam	24th	Revision
		37	UNIT V Measurement of temperature thermoelectric thermometers,	25th	To measure the speed of a motor.
		38	bimetallic thermometer, resistance thermometers,		
14 th	26-10-2026 to 30-10-2026	39	thermistors	26th	Revision
		40	pyrometer	27th	To measure level of water in a tank using any sensor
		41	temperature recorders		
15 th	02-11-2026 to 06-11-2026	42	Measurement of other non-electrical quantities Humidity measurement	28th	Revision
		43	PH measurement	29th	Revision
		44	Level measurement		
16 th	09-11-2026 to 13-11-2026	45	Revision	30th	Revision
		46	Vibrations measurement	31st	Revision
		47	Assignment No. 3, Revision		
17 th	16-11-2026 to 20-11-2026	48	3rd Sessional test	32th	Viva
		49	Discussion on Sessional Test	33th	Revision
		50	Discussion on important question		

LESSON PLAN					
Name of the Faculty : Mr. Suresh Kumar					
Semester : 5th					
Subject : Optical Fibre Communication					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 03 HOURS (Theory) + 04 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/test)	Practical Day	Topic
1st	30-07-2026 to 31-07-2026	1	Unit I Historical perspective, basic communication systems	1st	To identify and use various components and tools used in optical fiber communication
		2	Optical fiber communication		
2nd	03-08-2026 to 07-08-2026	3	Electromagnetic spectrum used	2nd	Revision
		4	Advantages and disadvantages of optical communication	3rd	To set up fiber analog link
		5	Principle of light penetration, reflection, critical angle		
3rd	10-08-2026 to 14-08-2026	6	Revision	4th	Revision
		7	Unit II Optical Fibers and Cables Constructional details of various optical fibers	5th	To set up optic digital link
		8	Multimode and mono-mode fibers		
4th	17-08-2026 to 21-08-2026	9	Step index and graded index fibers	6th	Revision
		10	Acceptance angle and types of optical fiber cables.	7th	To measure bending losses in optical fibers
		11	Optical Fibers cable connectors		
5th	24-08-2026 to 28-08-2026	12	Splicing techniques (Mechanical, fusion)	8th	Revision
		13	Absorption Losses: Scattering Losses	9th	To observe and measure the splice or connector loss
		14	Radiation losses, Connector losses		
6th	31-08-2026 to 04-09-2026	15	Bending loses	10th	Revision
		16	Dispersion: Types and its effect on data rate	11th	To measure and calculate numerical aperture of optical fiber
		17	Revision		
7th	07-09-2026 to 11-09-2026	18	Unit III Optical Sources Principle and Characteristics of LED used in optical communication	12th	Revision
		19	Principle and Characteristics of LASER used in optical communication	13th	Revision
		20	Assignment No. 1, Revision		
8th	14-09-2026 to 18-09-2026	21	1st Sessional Test	14th	Viva
		22	Discussion on sessional test	15th	To observe characteristics of optical source
		23	different types of LED structures used and their brief description		
9th	21-09-2026 to 25-09-2026	24	different types of LED structures used and their brief description	16th	Revision
		25	Principle and operation of different injection laser diodes, comparison of LED and ILD.	17th	To observe characteristics of optical detector
		26	Revision		

10 th	28-09-2026 to 02-10-2026	27	Unit IV Optical Detectors Characteristics of photo detectors used in optical communication	18th	Revision
		28	PIN diode	19th	To splice the available optical fiber
		29	Avalanche photo diode (APD)		
11 th	05-10-2026 to 09-10-2026	30	Noise in detectors	20th	Revision
		31	Revision	21th	Revision
		32	Revision		
12 th	12-10-2026 to 16-10-2026	33	Assignment No. 2, Revision	22th	Viva
		34	2nd Sessional Test	23th	To connect a fiber with connector at both ends
		35	Discussion on sessional test		
13 th	19-10-2026 to 23-10-2026	36	Unit V Optical Amplifiers Types of optical amplifiers	24th	Revision
		37	Semiconductor & fiber optical amplifiers	25th	To identify and use various components and tools used in optical fiber communication
		38	Principle of operation of SOA,		
14 th	26-10-2026 to 30-10-2026	39	Types of SOA	26th	Revision
		40	EDFA, Raman amplifiers.	27th	Revision
		41	Comparison of SOA, EDFA and Raman Amplifiers.		
15 th	02-11-2026 to 06-11-2026	42	Revision	28th	Revision
		43	Revision	29th	Revision
		44	Revision		
16 th	09-11-2026 to 13-11-2026	45	Revision	30th	Revision
		46	Revision	31st	Revision
		47	Assignment No. 3, Revision		
17 th	16-11-2026 to 20-11-2026	48	3rd Sessional Test	32th	Viva
		49	Discussion on sessional test		
		50	Discussion on important question	33th	Revision

LESSON PLAN

Name of the Faculty : Ms. Chetna

Semester : 5th

Subject : PLC & SCADA

Lesson Plan duration : 30-07-2026 to 23-11-2026

Work Load Per Week : 02 HOURS (Theory) + 04 HOURS (PRACTICAL)

Week	Date	Theory		Practical	
		Lecture day	Topic (including assignment/ test)	Practical Day	Topic
1 st	30-07-2026 to 31-07-2026	1	UNIT I PLC Overview Introduction, limitations of relays and advantages of PLCs over electromagnetic relays.	1 st	Show PLC modules and components in lab/industry or through online videos.
		2	PLC Operation or working	2 nd	Revision
2 nd	03-08-2026 to 07-08-2026	3	PLC Architecture and building blocks, Functions of various blocks	3 rd	Demonstration of ladder diagram programming using NO, NC and OTE instructions.
		4	Different programming languages	4 th	Revision
3 rd	10-08-2026 to 14-08-2026	5	PLC applications and manufacturers	5 th	Write a ladder diagram program for switching ON-OFF light.
		6	PLC selection criteria	6 th	Revision
4 th	17-08-2026 to 21-08-2026	7	UNIT II Numeric Systems and Logic Concepts for Ladder Programming Introduction	7 th	Write a ladder diagram program for liquid level control.
		8	Number systems and conversions, Binary arithmetic	8 th	Revision
5 th	24-08-2026 to 28-08-2026	9	Binary codes, Boolean algebra	9 th	Write a ladder diagram program for industry process control.
		10	logic gates	10 th	Revision
6 th	31-08-2026 to 04-09-2026	11	Introduction to Ladder logic, Basic components and their symbols	11 th	Write a ladder diagram program for main door control.
		12	Fundamental of ladder diagrams	12 th	Revision
7 th	07-09-2026 to 11-09-2026	13	Ladder logic functions, Boolean logic and relay logic	13 th	Revision
		14	Assignment No. 1, Revision	14 th	Revision
8 th	14-09-2026 to 18-09-2026	15	1st Sessional Test	15 th	Viva
		16	Discussion on sessional test, UNIT III : Introduction of File structure and addressing formats, Input and output data file, status file, Bit data file	16 th	Write a ladder diagram program for vehicle parking control.
9 th	21-09-2026 to 25-09-2026	17	Timer data file, Counter data file	17 th	Revision
		18	Control data file, Integer data file and Float data file	18 th	Write a ladder diagram program for bottling plant.
10 th	28-09-2026 to 02-10-2026	19	UNIT IV Ladder Programming Instructions: Introduction, Bit instructions	19 th	Revision
		20	Timer instructions, Counter instructions	20 th	Write a ladder diagram program for drink dispenser.
11 th	05-10-2026 to 09-10-2026	21	Reset instruction, Data handling instructions	21 th	Revision
		22	Comparison Instructions, Sequencer instructions	22 th	Write a ladder diagram program for traffic light control.
12 th	12-10-2026 to 16-10-2026	23	Assignment No. 2, Revision	23 th	Viva
		24	2nd Sessional Test	24 th	Write a ladder diagram program for temperature control.

13th	19-10-2026 to 23-10-2026	25	Discussion on sessional test, UNIT V SCADA : Introduction, Project and Tag creation	25th	Revision
		26	Visibility and text animation	26th	Show online videos to demonstrate the creation and animation of graphics for various applications using SCADA.
14th	26-10-2026 to 30-10-2026	27	Numeric display and Numeric input	27th	Revision
		28	String display and String input	28th	Industrial visit to monitor the actual working of PLC and SCADA.
15th	02-11-2026 to 06-11-2026	29	Concept of Label,Arrow, vertical slider, horizontal slider	29th	Revision
		30	Creation of various animations like color fill	30th	Revision
16th	09-11-2026 to 13-11-2026	31	horizontal position,vertical position,height,width and touch	31st	Revision
		32	Alarming,Data Logging	32nd	Revision
17th	16-11-2026 to 20-11-2026	33	Assignment No. 3,Revision	33rd	Revision
		34	3rd Sessional Test	34th	Viva

LESSON PLAN					
Name of the Faculty : Ms. Chetna					
Semester : 5th					
Subject : WMC					
Lesson Plan duration : 30-07-2026 to 23-11-2026					
Work Load Per Week : 02 HOURS (Theory) + 04 HOURS (PRACTICAL)					
Week	Date	Theory		Practical	
		Lecture day	Topic (Including assignment / test)	Practical Day	Topic
1 st	30-07-2026 to 31-07-2026	1	Unit I Basics of Wireless Communication, Advantages of wireless communication	1 st	Study the features, specification and working of cellular mobile
		2	Electromagnetic waves, Frequency Spectrum used	2 nd	Revision
2 nd	03-08-2026 to 07-08-2026	3	Cellular Network Systems	3 rd	Measurement of signal strength at various points from a transmitting antenna
		4	Propagation considerations, range and fading	4 th	Revision
3 rd	10-08-2026 to 14-08-2026	5	Revision	5 th	Demonstration of Base Transceiver Station (BTS) with nearby cellular tower
		6	Unit II Cellular concept : Introduction 2G	6 th	Revision
4 th	17-08-2026 to 21-08-2026	7	Cell area, cell site structure, capacity of a cell	7 th	Observing call processing of GSM trainer kit.
		8	Frequency reuse concept	8 th	Revision
5 th	24-08-2026 to 28-08-2026	9	Co-Channel Interference	9 th	Troubleshooting of a GSM mobile phones.
		10	Adjacent-Channel Interference	10 th	Revision
6 th	31-08-2026 to 04-09-2026	11	Power Control for Reducing Interference	11 th	Revision
		12	Fundamentals of Cell splitting and sectoring	12 th	Study and demonstration of AT Commands of GSM System using trainer kit
7 th	07-09-2026 to 11-09-2026	13	Unit III Multiple Access Techniques for Wireless Communication : Introduction to Multiple Accesses	13 th	Revision
		14	Assignment No. 1, Revision	14 th	Revision
8 th	14-09-2026 to 18-09-2026	15	1st Sessional Test	15 th	Revision
		16	Frequency Division Multiple Access (FDMA)	16 th	Viva
9 th	21-09-2026 to 25-09-2026	17	Time Division Multiple Access (TDMA)	17 th	Study of LTE mobile communication using trainer kit
		18	Code division multiple access (CDMA), WCDMA	18 th	Revision

10 th	28-09-2026 to 02-10-2026	19	Introduction to OFDMA Unit IV Mobile Communication Systems : Introduction of Global Systems for Mobile Communication (GSM)	19th	Study and demonstration of AT Commands of LTE using trainer kit
		20	GSM System Architecture	20th	Revision
11 th	05-10-2026 to 09-10-2026	21	Introduction of GPRS, Introduction to EDGE	21th	Revision
		22	Introduction to Bluetooth, Introduction to Wi-fi	22th	Revision
12 th	12-10-2026 to 16-10-2026	23	Assignment No. 2, Revision	23th	Revision
		24	2nd Sessional Test	24th	Revision
13 th	19-10-2026 to 23-10-2026	25	Unit V Introduction to 3G, 4G& 5G : Introduction to Architecture and Features of UMTS	25th	Visit to Mobile Switching Centre
		26	Features and Architecture of LTE (Long Term Evolution)	26th	Revision
14 th	26-10-2026 to 30-10-2026	27	Introduction to 5G	27th	Revision
		28	Concept of New Radio Technology	28th	Revision
15 th	02-11-2026 to 06-11-2026	29	Comparison of 4G with 5G	29th	Revision
		30	Revision	30th	Revision
16 th	09-11-2026 to 13-11-2026	31	Revision	31st	Revision
		32	Revision	32th	Revision
17 th	16-11-2026 to 20-11-2026	33	Assignment No. 3,Revision	33th	Revision
		34	3rd Sessional Test	34th	Viva