

LESSON PLAN

EVEN SEM (2022-2023)

Name of the Assistant Professor- Gitika

Department- Electronics & IT

Lesson Plan- 18 Weeks (01.02.2023- 18.05.2023)

Week	Date	B.Sc. (Hons.)-IT Sem- 2nd Paper: BSIT-103 Subject: Applications of EM wave Days: M-T-W(3 Days)	B.Sc. (Hons.)-IT Sem- 2nd Paper: BSIT-204 Subject: Digital Electronics-I Days: Th-F-S (3 Days)	B.Sc. computer science and electronic Sem-6th Paper- paper II Subject: Introduction to C & its Programming : M-TUE-W (3 Days)	B.Sc. (Hons.)-IT Sem-4th Paper- BSIT-401 Subject: Digital Electronics-III Days: M-TUE-W (3 Days)	B.Sc. -II (Hons.)-IT Sem-4th Paper: BSIT-402 Subject: Oscillators and Multivibrators Days: T-F-S (3 Days)	
1	01.02.2023	Introduction class Propagation of EM Waves		Introduction class	Introduction class		
	02.02.2023		Number Systems: Binary, Octal			Operational Amplifier-II: Offset Voltages and currents	
2	03.02.2023		Hexadecimal number system and base conversions			input bias Current	
	04.02.2023		Binary Arithmetic operations			input offset voltage, error introduced	
	05.02.2023	SUNDAY					
	06.02.2023	Ground wave propagation		C.Fundamentals: The character set	Sequential Circuits-II : Counters		
	07.02.2023	sky wave propagation		identifiers & keywords	Asynchronous Counters- Mod-N or divided by N Counter		
	08.02.2023	Space wave propagation		data types	Synchronous Counter- Modulo Counters		
	09.02.2023		Binary Arithmetic operations			integrating and differentiating circuit using opamp	

3	10.02.2023		Binary codes-BCD, Grey			multiplication, division
	11.02.2023		cyclic, ASCII, EBCDIC			Schmitt Trigger
	12.02.2023	SUNDAY				
	13.02.2023	multipath propagation		constants, variables & arrays <declaration	Decade Counter. UP-Down Counters	
	14.02.2023	Troposphere scattering		expressions statements, symbolic constant	Basic principle of digital clock	
	15.02.2023	,Fading		Operators and expressions : Arithmetic operators, unary operators	revision	
	16.02.2023		Parity Bit Code, Unicode			Active filters using opamp (1st order)
4	17.02.2023		Sequential Code.			Revision
	18.02.2023		revision			test
	19.02.2023	SUNDAY				
	20.02.2023	Free space path loss.		relational and logical operators, assignment operators, conditional operators.	Registers: Shift Registers	
	21.02.2023	Revision		Data input and output: Entering input data- The scanned function	Serial-in serial out (SISO),	
	22.02.2023	Revision		Writing output data- The print function	serial-in-parallel out (SIPO)	
	23.02.2023		Logic Gate AND, OR, NOT, XOR, XNOR, NOR, NANDs			Feedback in Amplifier:- Classification of Amplifiers (voltage, current, Transconductance, Transresistance amplifier)
5	24.02.2023		Boolean Algebra			Feedback concept

	25.02.2023		Postulates, Duality Principal			calculation of transfer gain in degenerative and regenerative feedbacks
	26.02.2023	SUNDAY				
	27.02.2023	Antenna: Basic antenna operation		revision	parallel-in- serial-out (PISO)	
	28.02.2023	Radiation mechanism		Control statements: While statement	parallel-in- parallel-out (PIPO),	
	01.03.2023	Elementary doublet		Do-while statement, For statement	bi-directional shift register	
	02.03.2023		De Morgan's Law			Feedback topologies
6	03.03.2023		Simplificatio n of Boolean Ide Standard SOP & POS Forms ntities			Effect of negative feedback on gain
	04.03.2023					Non-linear distortion
	05.03.2023	SUNDAY				
	06.03.2023	Current and voltage distribution		If-else statement, switch statement	Universal Shift Register Applications of shift register	
	07.03.2023	radiation pattern		break statement , continue statement	Ring counter	
	08.03.2023	HOLIDAY				
	09.03.2023		Simplificatio n using K- map			Frequency response
7	10.03.2023		don't care condition implementati on of SOP & POS form using NAND and NOR Gate			Effect of negative voltage shunt feedback on input and output resistance
	11.03.2023		revision			Effect of negative voltage series feedback on input and output resistance
	12.03.2023	SUNDAY				

	13.03.2023	antenna gain		Function: Defining a Function	Twisted Ring Counter		
	14.03.2023	antenna resistance		Accessing a Function	Sequence Generator		
	15.03.2023	bandwidth		passing arguments to a Function	revision		
	16.03.2023		Logic Families-I: - Unipolar & Bipolar Logic families			Effect of negative current shunt feedback on input and output resistance, Effect of negative current series feedback on input and output resistance	
8	17.03.2023		Characteristic s of Digital IC's.			revision	
	18.03.2023		fan in, fan out, propagation delay, Noise Margin, level of Gating			test	
	19.03.2023	SUNDAY					
	20.03.2023	beamwidth		specify arguments	<u>Digital Memories :</u> Memory System Parameters		
	21.03.2023	polarisation		data types	ROM, PROM		
	22.03.2023	resonant antenna		revision	EPROM, EEPROM		
	23.03.2023	HOLIDAY					
	24.03.2023		Resistance Transistor Logic RTL(NOR)			<u>Oscillators:</u> Principle of oscillations	
25.03.2023		Direct Coupled Logic(DCTL)			condition for sustained oscillation		
26.03.2023	SUNDAY						
27.03.2023	non resonant antenna			Arrays: Defining an Array	RAM (Static and dynamic)		
28.03.2023	effect of ground on antenna			processing an Array	PLA's, Expanding Memory Size		
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	29.03.2023	revision		Passing arrays to a function	revision	
	30.03.2023	HOLIDAY				
10	31.03.2023		Diode Transistor Logic			, working and frequency calculation of RF oscillators
	01.04.2023		High Threshold Logic HTL			Hartley oscillator, Colpitts oscillator
	02.04.2023		DTL (NAND).			crystal oscillator) and AF Oscillators
	03.04.2023	SUNDAY				
	04.04.2023	HOLIDAY				
	05.04.2023	Antenna Techniques:- Coupling at medium frequency		Multidimensional arrays	<u>D/A and A/D converters :</u> Digital and Analog representation	
	06.04.2023	General consideration		arrays and strings	D/A Converters	
	11	07.04.2023		Revision		
08.04.2023			Revision			Revision
09.04.2023			test			test
10.04.2023		SUNDAY				
10.04.2023		selection of feed point		Pointers: Fundamentals	Weighted Resistor DAC	
11.04.2023		antenna coupler		pointer declaration	R-2R Ladder Type DAC	
12.04.2023		Directional high frequency antenna		passing pointers to a function	Specification of DAC. A/D converters	
12	13.04.2023		Logic Families-II: - TTL			<u>Multivibrators:</u> Astable Multivibrator
	14.04.2023	HOLIDAY				
	15.04.2023		Schott-key TTL			Bistable Multivibrator
	16.04.2023		revision			Monostable Multivibrator using BJT
	17.04.2023	SUNDAY				
	18.04.2023	Dipole arrays		pointers and one dimensional arrays	Single slope A/D converter	
	19.04.2023	folded antenna and its application		operations on pointers	Dual slope A/D converter	

13	20.04.2023	revision		revision	Successive approximation A/D converter		
	21.04.2023		MOS logic			Triangular waveform generator	
	22.04.2023		CMOS Logic Gate (NAND)			The 555 Timer, Block diagram of 555 and its application	
	23.04.2023		CMOS Logic Gate (NAND, NOR).			Astable & Monostable Multivibrator	
	24.04.2023	SUNDAY					
	25.04.2023	Satellite Communication:- History		revision	Specification of ADC		
	26.04.2023	Orbital mechanics		test	revision		
14	27.04.2023	Kepler's three laws of planetary motion, satellite orbit		revision	revision		
	28.04.2023		Revision			revision	
	29.04.2023		revision			test	
	30.04.2023		Revision			test	
	01.05.2023	SUNDAY					
	02.05.2023	satellite elevation categories		revision	test		
	03.05.2023	, Elevation angle		revision	revision		
15	04.05.2023	Azimuth angle		test	revision		
	05.05.2023		Test			revision	
	06.05.2023		Revision			revision	
	07.05.2023		test			revision	
	08.05.2023	SUNDAY					
	09.05.2023	Orbital Perturbations		revision	test		
	10.05.2023	Longitudinal changes		revision	revision		
16	11.05.2023	Inclination changes		revision	revision		
	12.05.2023		Revision			test	
	13.05.2023		Revision			revision	
	14.05.2023		Revision			test	
	15.05.2023	SUNDAY					

	16.05.2023	Remote sensing (Basic idea		test	test		
	17.05.2023	its application		revision	revision		
17	18.05.2023	revision		test	test		
	19.05.2023		Test			revision	
	20.05.2023		Test			revision	
	21.05.2023		test			revision	
	22.05.2023	SUNDAY					
	23.05.2023	Revision		revision	revision		
	24.05.2023	test		test	revision		
	25.05.2023	revision		revision	revision		
18	26.05.2023		Revision			revision	