Lesson plan				
Name of Faculty				
Discipline		**Electrical Engineering**		
Semester		**4th**		
Subject		**Digital Electronics**		
Lesson Plan Duration		**15 Week (From March 2021to July 2021) Theory - 04, Practical - 02**		
Week	**Theory**		**Practical**	
	Lecture day	**Topic (Including Assignment/ Test)**	**Practical day**	**Topic**
1st	Day1	**1: Number Systems**	Day 1	Verification and interpretation of truth table for AND, OR,
	Day2	Decimal, binary		
	Day3	octal and hexa-decimal number systems		
	Day4	and their inter-conversion		
2nd	Day1	Numerical based on inter-conversion	Day 1	NOT, NAND, NOR, X-OR gates
	Day2	Binary and Hexadecimal addition		
	Day3	subtraction and multiplication		
	Day4	1's and methods of addition/subtraction		
3rd	Day1	2's complement	Day 1	Revision and checking
	Day2	Numericals/problems		
	Day3	Numericals/problems		
	Day4	**2:Gates** ;Definition, symbol and truth tables for inverter, OR,		
4th	Day1	AND, NAND	Day 1	Construction of Half Adder using gates
	Day2	NOR and X-OR and		
	Day3	equivalence circuit (Ex. NOR)		
	Day4	Revision/assignment		
5th	Day1	Class test	Day 1	Construction of Full Adder using gates
	Day2	**3:Boolean Algebra** ; Boolean Relations and their applications		
	Day3	De Morgan's Theorems		
	Day4	K-Map for two variables		
6th	Day1	k-map for 4 variable	Day 1	Revision and checking
	Day2	Numerical based on k-map		
	Day3	Numerical based on k-map		
	Day4	**4:Combinational Circuits**		
7th	Day1	Half adder with explanation	Day 1	To verify the truth table for JK flipflop
	Day2	Full adder		
	Day3	Encoder		
	Day4	Decoder		
8th	Day1	Multiplexer/Demultiplexer	Day 1	Revision and checking
	Day2	Display Devices (LED, LCD		
	Day3	and 7-segment display)		
	Day4	Revision/assignment		
9th	Day1	Class test	Day 1	Construction and testing of any counter
	Day2	**5:Flip-Flops;** J-K Flip-Flop		
	Day3	R-S Flip-Flop		
	Day4	D-Type Flip-Flop		
10th	Day1	T-Type Flip-Flop	Day 1	Quiz and assessment
	Day2	Applications of Flip-Flops		
	Day3	Revision/assignment		
	Day4	Class test		

11th	Day1	**6: Introduction of Shift Registers and Counters**	Day 1	Verification of operation of a 8-bit D/A Converter
	Day2	With types		
	Day3	and Counters		
	Day4	With types		
12th	Day1	Revision/assignment		
	Day2	Class test	Day 1	Revision and checking
	Day3	**7: A/D and D/A Converters**		
	Day4	A/D converter (Counter ramp		
13th	Day1	successive approximation method of A/D Conversion)	Day 1	Revision and checking
	Day2	D/A converters (Binary weighted		
	Day3	R-2R D/A Converter)		
	Day4	Revision/assignment		
14th	Day1	Class test	Day 1	Quiz and revision
	Day2	**8: Semi-conductor Memories**		
	Day3	With its Types		
	Day4	merits, demerits,		
15th	Day1	and applications	Day 1	Revision and checking
	Day2	Revision/assignment		
	Day3	Class test		
	Day4	Revision/Review/Test of old HSBTE Papers		