

## Lesson Plan

**Name of Faculty** : Dr. Suman Rani, Guest Faculty of ECE  
**Discipline** : Computer Science Engg.  
**Semester** : 5<sup>TH</sup> (odd)  
**Subject** : Principal of Digital Electronics (OE/ ECE/ 1-T)

Week	Theory		Topic Covered Date and Remarks		
	Lecture Day	Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1 <sup>st</sup>	1	<b>Digital Fundamentals:</b> Decimal, Binary, octal, hexadecimal			
	2	1's and 2's complements			
	3	Binary codes: BCD, Excess-3, Gray			
2 <sup>nd</sup>	4	Alphanumeric codes, Boolean theorems			
	5	Universal gates			
	6	Sum of products, product of sums, MIN TERMS, MAX TERMS			
3 <sup>rd</sup>	7	K-MAP			
	8	Quine-Mc Cluskey method of minimization			
	9	Design of half adder and full adder			
4 <sup>th</sup>	10	<b>Combinational circuits:</b> Half and full subtractors			
	11	Binary parallel adder, carry look ahead adder			
	12	BCD adder,			
5 <sup>th</sup>	13	Multiplexer, Demultiplexer			
	14	Magnitude comparator			
	15	Decoder, Priority Encoder, Encoder			
6 <sup>th</sup>	16	<b>Sequential Circuits:</b> SR, JK Flip Flop			
	17	T, D FF			
	18	Master Slave FF			
7 <sup>th</sup>	19	Triggering of FF, Conversion of FF			
	20	Ripple counter			
	21	Ring counter			
8 <sup>th</sup>	22	UP down counter			
	23	Shift Register, Universal Shift Register			
	24	<b>Memory devices:</b> ROM, PROM			
9 <sup>th</sup>	25	EPROM, EEPROM			
	26	EAPROM			
	27	RAM, Static and Dynamic RAM			
10 <sup>th</sup>	28	PLA			
	29	PAL			
	30	FPGA			
11 <sup>th</sup>	31	Logic levels			
	32	Propagation delay			
	33	Power Dissipation			
12 <sup>th</sup>	34	Fan in, Fan out			
	35	Practice of Number systems			
	36	Conversion of Flip-flop Practice			
13 <sup>th</sup>	37	ADDER/Subtractor revision			
	38	MCQ based on Unit 1 & 2			
	39	MCQ based on Unit 1 & 2			