Digital Logic Design

SOURCE: 01	Digital Logic (GATE EXAM)
01	Digital Logic Syllabus
02	Properties of Various Logic Gates	Commutative, Associative, Idempotent
03	Types of Logic Gates	Symbols	Truth Tables
04	Implement All Gates Using NAND and NOR Gate	Why NAND and NOR are Called Universal Gate
05	XOR Gate Properties with Example	Digital Electronics
06	XNOR Gate Properties with Example	Digital Electronics
07	Canonical Sum of Product (SOP) with Example
08	Dualty Theorem	How to Find Dual of Any Boolean Expression
09	Self-Dual Function	How to Find Self Dual Function of Any Boolean Expression with 1 Variable
10	How Many Boolean Function and Self-Dual Functions Possible with 'N' Variables
11	Minimization Using K-Map	Introduction to K-Map	Digital Electronics
12	What is K-Map	Design K-Map	3 Variable K-Map
13	4 Variable K-Map with Examples	Design K-Map	Minimization in Digital Electronics
14	Essential Prime Implicates vs Prime Implicates	K-Map Minimization with Examples
15	Half-Adder	Combination Circuits	Digital Electronics
16	Full-Adder	Combinational Circuit	Digital Electronics
17	Half Subtractor	Combinational Circuits	Digital Electronics
18	Introduction to Multiplexer	What are Multiplexers	Digital Electronics
19	Implement Function Using Multiplexer	How Multiplexer Implement Any Function
20	How Multiplexers Are Functionally Complete	Implement AND, OR, NOT Using 2*1 Mux
21	Introduction to DE-multiplexers	What are DE-multiplexers	Digital Electronics
22	Working of Multiplexers	Inside Block Diagram of Multiplexers
23	Working of DE-multiplexers	Digital Electronics
24	What is Cascading Multiplexer	Multiplexers in Digital Electronics
25	Introduction to Encoder and Decoder	Digital Electronics
26	Sequential Circuit Introduction with Examples
27	SR Latch Using NAND Gate	NAND SR Latch	Digital Electronics
28	SR Flip-Flop Using NAND Gate	Digital Electronics
29	SR Latch Using NOR Gate	NOR SR Latch	Digital Electronics
30	SR Flip-Flop Using NOR Get	Digital Electronics
31	SR Flip-Flop Characteristic and Excitation Table	Sequential Circuits
32	Introduction to JK-Flip Flop	JK-Flip –Flop Full Explanation	Digital Electronics
33	Level Trigger vs Edge Trigger Flip-Flop	Types of Triggering
34	JK Flip-Flop Characteristic and Excitation Table	Sequential Circuits	Digital Electronics
35	Race Around Condition	Race Condition in JK Flip-Flop
36	Master Slave JK Flip-Flop	Digital Electronics
37	Introduction to D Flip-Flop	Circuit, Working, Truth Table, Characteristics and Excitation
38	Introduction to T Flip-Flop	Circuit, Working, Truth Table, Characteristics and Excitation
39	Convert SR to D Flip-Flop	Digital Electronics
40	T Flip-Flop to JK ff Conversion
41	Preset and Clear Inputs in Flip-Flop	Asynchronous Input s
42	Introduction to Counters	Digital Electronics
43	Synchronous vs Asynchronous Counter	Digital Electronics
44	Up and Down Counter	Recognize Up and Down Counter
45	Design Synchronous Counter	How to Design Synchronous Counter	Digital Electronics
46	Ring Counter	Synchronous Counters	Digital Electronics
47	Johnson Counter	Twisted Ring Counter
48	Shift Registers	SISO, SIPO, PISO, PIOP
49	Convert SR to JK Flip-Flop	Digital Electronics
50	Convert JK to SR Flip-Flop	Digital Electronics
51	Ranges of Sign Magnitude 1's and 2's Complement	Number System
52	XOR Get Properties
53	Universal Gates
54	Self-Complementary Codes	Digital Electronics
55	XNOR Gate Properties
56	Combinational Circuit and Types
57	Half Adder
58	Priority Encode	Digital Electronics