Detailed Syllabus of the MCA I Semester Logical Organization of Computers Part 2

Sr. No.	Topics	Page No. *
1	Inverters	19
2	OR gate	20
3	Decimal to binary encoder	21
4	And gate	22
5	1-0f-10 decoder	27
6	NOR gates	32
7	NAND gates	34
8	De Morgan's First and Second Law	33,35
9	XOR gates	37
10	Odd parity tester	39
11	Odd parity generator	40
12	Controlled inverter	41
13	XNOR gates	42
14	Word comparator	43
15	Multiplexers(16-to-1)	58
16	Nibble Multiplexer	60
17	Boolean algebra –De morgan's two theorems	64
	and rules for addition and multiplication	
18	Drawing logic circuit for given equation. Sum-of-products	67
19	Half adders	81
20	Full adders	81
21		82
22	Binary adders 2's complement adder-subtracter	85
22	2 s complement adder-subtracter	00
23	RS latches	90
24	NOR RS latch, NAND RS latch	92
25	Clocked RS latch	94
26	D latch	95
27	Clocked D latch	95
28	Edge-triggered D flip-flops	96
30	Buffer registers	106
31	Controlled buffer registers	107
32	Shift left and shift right registers	109
33	Controlled shift registers	109
34	Shift register with broadside load	110
35	Ring counter	114

^{*} Malvino A. P.: Digital Computer Electronics, <u>3rd Edition</u>, Tata McGraw, Hill Pub. Co. Ltd., New Delhi, 1990.