

# SARASWATI MAHILA MAHAVIDHYALAYA, PALWAL

## LESSON-PLAN

Class:M.Sc final

Semester:4th

ODD/EVEN:Even

Subject:Electronic science

Session: 2021-22

Lecture Number	Topic
1	Binary number, octal number,hexadecimal number and interconversion of number
2	Binary addition, subtraction, multiplication and division
3	Hexadecimal addition ,subtraction ,octal addition and subtraction
4	Signed number, 1's complement arithmetic and 2's complement arithmetic
5	9's complement arithmetic and XS-3 code
6	BCD code and arithmetic, gray code ,revision
7	Positive and negative logic designation and OR gate,doubts
8	AND gate,Not gate,NOR gate,NAND gate
9	EX-OR GATE,EX-NOR Gate and numericals
10	Circuits associated with gate and boolean identity and demorgan'slaw
11	Sum of products and products of sum basic ,revision
12	Minterm ,maxterm,k-map
13	Don't care terms, deriving SOP and POS expressions from truth tables
14	Numerical related to all tooic doubt
15	Test
16	Combinational Circuits and binary adder introduction
17	Half adder and full adder

Lecture Number	Topic
18	Encoder: octal to binary, decimal to bcd
19	Decoder: 3 to 8 line,Bcd to Decimal ,2 to 4 lines with Nana gates
20	Multiplexer : basic 2 input multiplexer,4 input multiplexer,
21	Demultiplexer : 1 to 4 lines , 1 to 8 lines de multiplexer
22	Parity bit generator And checker 4bit and 5bit,doubts
23	Digital Comparator :1bit, 2 bi ,3 bit ,4 bit comparator
24	Rom ,bcd to seven segment
25	Code converter : BCD to gray code, 4 bit binary to gray code,BCD to XS-3 code converter
26	Latch:1bit memory, Nor latch,Nand latch
27	S-R flip flop,excitation table, and boolean expressions fot S-R flip flop
28	J-K flip flop ,excitation table ,T flip flop,D flip flop
29	Race around condition of J -K flip flop, Master Slave JK flip flop
30	Asynchronous and synchronous counter
31	Ripple counter,shift registers
32	Revision, doubts
33	Test unit 2nd

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Lecture Number	Topic
34	Metal oxide semiconductor field effect transistor
35	DE -mode MOSFET,E- MODE MOSFET
36	P- channel devices ,n- channel devices
37	MOS inverter- dynamic and static
38	Two phase inverter and MOS Nand gate
39	MOs Nor gate, Complementary mos gates technology
40	Cmos nor gate,nand gate
41	MOS shift registers and RAM
42	Revision, doubts
43	Test unit 3rd8
44	Fundamental of modulation and demodulation
45	Frequency spectra in AM modulation
46	Power in AM modulation, class C Amplifier
47	Efficiency modulation ,derivation
48	Frequency conversion ,pulse modulation
49	SSB system,balanced modulation
50	Filtering the signals for SSB

Lecture Number	Topic
51	Phase shift method and product detector method
52	Pulse modulation spectra
53	Microwave devices introduction
54	Klystron and its working, applications, doubts
55	Magnetron and its working, application
56	Revision, doubts, numericals related to topics

Signature: Rachana Sharma