I	Define Datatypes with an examples (CO: I) (BL: I)	3
I	List out the types of Number Systems (CO: I) (BL: I)	3
I	Reproduce the conversion from binary to decimal using	3
I	Subtract 112 from 142 by using 1's Complement and 2's	3
I	Predict 2's Complement adition using 11011+00110 (CO	3
I	Discuss about ASCII Code (CO: I) (BL: II)	3
I	Apply 10's Complement in 87652 (CO: I) (BL: II)	3
I	Infer the result for 11100110 using Gray Code Method ((	3
I	Calculate 110011-110010 using 2's Complement Subtrac	3
I	Sketch about Octal to Decimal Conversion with an exam	3
I	Experiment about hexadecimal to Decimal Conversion(C	3
I	Break down about Excess 3 Code (CO: I) (BL: IV)	3
I	Point out 9's and 10's complement with an suitable exar	3
I	Connect Binary coded decimal with Decimal number (CC	3
II	Identify the gate types with logical Diagram and truth ta	3
II	Examine and prove the Demorgan's theorms (CO: II) (BL	3
II	Tell about Don't care Condition (CO: II) (BL: I)	3
II	Memorize 2 variable and 3 variable Karnaugh Map. (CO:	3
II	Summarize about universal gate (CO: II) (BL: II)	3
II	Indicate the block diagram for Digital Computers (CO: II)	3
II	Demonstrate about the Basic laws of Boolean Algebra ((	3
II	Express the Map Simplification with Pair,Octet and Quac	3
II	Construct the Minterm and Maxterm with an example.	3
II	Experiment about XOR, and X-NOR gates with its Truth T	3
II	Sketch about the Product of Sums Simplification (CO: II)	3
II	Connect Product of Sums Simplification and Sums of Pro	3
II	Infer logic gates with K-map (CO: II) (BL: IV)	3
II	Explain about Boolean Function with K-map (CO: II) (BL:	3
III	Match the functionality of combinational & sequential ci	3
III	Label the circuit of a Half Adder and with its truth table	3
III	Quote about Flipflop and its Types (CO: III) (BL: I)	3
III	Examine Sequential Circuit (CO: III) (BL: I)	3
III	Interpret Edge Triggered Flipflop (CO: III) (BL: II)	3
III	Discuss the Block diagram for Parallel Binary adder (CO:	3
III	Estimate the function of D Flipflop with its diagram (CO	3
III	Indicate the use of Binary adder to add 1100+1101 (CO:	3
III	Relate the difference between Half Adder & Full Subtrac	3
III	Experiment Master – Slave Flipflop (CO: III) (BL: III)	3
III	Sketech out the uses of JK flip-flop (CO: III) (BL: III)	3
III	Connect the list of Flipflop with its logical diagram and tr	3
III	Infer about Binary adder (CO: III) (BL: IV)	3
III	Point out the universal gates (CO: III) (BL: IV)	3
IV	Reproduce Decoder (CO: IV) (BL: I)	3
IV	Examine about Decoder Expansion (CO: IV) (BL: I)	3
IV	Tabulate 4 to 1 line Multiplexer (CO: IV) (BL: I)	3
IV	Memorize Demultiplexers with its truth table (CO: IV) (E	3
IV	Indicate the uses of Counter with its types (CO: IV) (BL: I	3

IV	Infer NAND Gate Decoder (CO: IV) (BL: II)	3
IV	Associate about Encoder (CO: IV) (BL: II)	3
IV	Relate JK Flipflop to construct binary counter (CO: IV) (BL	3
IV	Demonstrate about register (CO: IV) (BL: III)	3
IV	Paint about Random Access Memory (CO: IV) (BL: III)	3
IV	Use Read Only Memory (ROM) (CO: IV) (BL: III)	3
IV	Point out the memory unit (CO: IV) (BL: IV)	3
IV	Classify Read Only Memory (ROM) (CO: IV) (BL: IV)	3
IV	Break down about Shift register (CO: IV) (BL: IV)	3
V	Tabulate input and output devices (CO: V) (BL: I)	3
V	Name about peripherial device (CO: V) (BL: I)	3
V	Enumerate about the Strobe control.(CO: V) (BL: I)	3
V	Quote the uses of ASCII (CO: V) (BL: I)	3
V	Predict the difference between CPU & Peripherals (CO: V	3
V	Differentiate the connection between I/O bus and I/O de	3
V	Explain about Handshaking and Classify it (CO: V) (BL: II)	3
V	Express any two input and output devices with diagram	3
V	Experiment 3 ways of computer bus connection (CO: V)	3
V	Prepare the diagram for Source Initiated Transfer (CO: V	3
V	Apply I/O Bus (CO: V) (BL: III)	3
V	Categorize Memory bus (CO: V) (BL: IV)	3
V	Discriminate Data Transfer (CO: V) (BL: IV)	3
V	Connect Synchronous Data Transfer and Asynchronous	3
I	Match out the types of other binary codes (CO: I) (BL: I)	6
I	Name the Complements & its types with example.(CO: I	6
I	State how to convert the following decimal number 199	6
I	Label the types of Number Systems with example (CO: I)	6
I	Parapharse about Error Detection (CO: I) (BL: II)	6
I	Contrast about Graycode,Excess3 Code with example (CO	6
I	Convert 152.25 to Binary, Octal and Hexadecimal (CO: I)	6
I	Express 1's Complement Subtraction with example.(CO:	6
I	Experiment the conversion from binary to Octal,Decimal	6
I	Show the difference between Decimal Representation a	6
I	Experiment the usage of Weighted Code and EBCDIC (CO	6
I	Point out 2's Complement addition with example.(CO: I)	6
I	Classify 152.25 from Octal to Binary and Hexadecimal (C	6
I	Order the r's and r-1 Complement (CO: I) (BL: IV)	6
II	Tabulate Boolean Algebra and List out the basic Identitie	6
II	Show the Map Simplification with example (CO: II) (BL: I	6
II	Examine about the NAND gate with its block diagram an	6
II	Discover the OR and XNOR gate types with truth table (C	6
II	Explain the Product of Sum Simplification with example	6
II	Express about Minterm with suitable Example (CO: II) (B	6
II	Infer DeMorgan's Theorem (CO: II) (BL: II)	6
II	Indicate the Algebra rule and solve the equation F(A,B,C	6
II	Experiment the use of Pairs,Quads and Octets to Simplif	6
II	Use Don't care Condition in Karnaugh Map (CO: II) (BL: II	6

II	Manipulate Boolean function into K-Map (CO: II) (BL: III)	6
II	Select the K-map and logical diagram for the f(x,y,z)=(1,2	6
II	Connect Boolean function and K-Map (CO: II) (BL: IV)	6
II	Survey Pairs in K-map (CO: II) (BL: IV)	6
III	Tell about how the Combinational Circuit differs from Se	6
III	List out any two types of adders and explian that in deta	6
III	Define the function of Half adder with its diagram. (CO: I	6
III	Identify SR and JK Flipflop (CO: III) (BL: I)	6
III	Illustrate T & D Flipflop (CO: III) (BL: II)	6
III	Outline the functions of Binary Subtractor (CO: III) (BL: II	6
III	Explain about Edge Triggered Flipflop (CO: III) (BL: II)	6
III	Contrast truth table for Full Adder with neat diagram (CO	6
III	Experiment the race condition problem in JK Flipflop wit	6
III	Relate the Master Slave using JK Flipflop (CO: III) (BL: III)	6
III	Demonstrate about working principles of the Combinatie	6
III	Separate the applications of the flip-flop (CO: III) (BL: IV)	6
III	Priorities Latch and flip-flop (CO: III) (BL: IV)	6
III	Categories the characteristics of JK flip-flop (CO: III) (BL:	6
IV	Recall about the various types of Integrated Circuits(CO:	6
IV	Recognize the characteistics of Multiplexer in detail (CO	6
IV	Match decoder and Encoder with truth table (CO: IV) (BL	6
IV	Examine about Registers (CO: IV) (BL: I)	6
IV	Compare the functioning of the Registers with Parallel I	6
IV	Describe aboutBinary Counters (CO: IV) (BL: II)	6
IV	Summarize the NAND gate decoder with its truth table (	6
IV	Discuss about the memory with its types (CO: IV) (BL: II)	6
IV	Sketch about the Shift Registers with the help of D Flipflc	6
IV	Construct 3 to 8 line Decoder with its truth table (CO: IV)	6
IV	Paint 3 to 8 Encoder with an example (CO: IV) (BL: III)	6
IV	Point out Binary encoder in digital logic (CO: IV) (BL: IV)	6
IV	Distinguish between Encoder and Decoder (CO: IV) (BL: I	6
IV	Survey about BCD adder in digital logic (CO: IV) (BL: IV)	6
V	Tell about the I/O Interface with an example.(CO: V) (BL:	6
V	Discover I/O Bus and Interface Modules in detail (CO: V)	6
V	Locate the difference between I/O & Memory Bus. (CO:	6
V	Match Isolated with Memory Mapped I/O. (CO: V) (BL: I)	6
V	Predict the Example of I/O Interface (CO: V) (BL: II)	6
V	Discuss the difference between Strobe and Handshaking	6
V	Summarize the various types of Input and output periph	6
V	Classify the different types of Output Devices (CO: V) (BL	6
V	Model the diagram of Data Transfer with Source initiate	6
V	Apply Handshaking method in Source & Destination Initi	6
V	Relate the purpose of Multiplexer (CO: V) (BL: III)	6
V	Point out the mode of data transfer (CO: V) (BL: IV)	6
V	Source intitiated strobe for data transfer (CO: V) (BL: IV)	6
V	Analyse the problem that can be solved by Hand Shaking	6
I	Recall the following decimal number to binary, octal anc	10

I	Discuss the conversion from binary to Octal,Decimal and	10
I	Solve (i) 00110 using 1's complement (ii)0111011 using 2	10
I	Dramatize the Decimal Representation (CO: I) (BL: III)	10
I	Complete the Radix of the number system (CO: I) (BL: III	10
I	Order EBCIDIC (CO: I) (BL: IV)	10
I	Select code converter from Binary to/from Gray code (C	10
I	ExamineBinary coded decimal (CO: I) (BL: IV)	10
II	Define Don't care conditions? Explain in detail (CO: II) (B	10
II	Classify the characteristics of the K Map.(CO: II) (BL: I)	10
II	Sketch the first and second De-morgans theorem (CO: II)	10
II	Calculate the Simplification of boolean expression using	10
II	Discover the difference between mintern and maxterm	10
II	Analyze the Boolean Function F=A+B'C as sum of minter	10
II	Simplify minterms are converted into maxterms (CO: II)	10
II	Explain why NAND gates are called as universal (CO: II) (	10
III	Select the Master Slave using JK Flipflop (CO: III) (BL: I)	10
III	Interpret the race condition problem in JK Flipflop with s	10
III	Discover 8*1 Multiplexer (CO: III) (BL: III)	10
III	Construct 1*16 Demultiplexer (CO: III) (BL: III)	10
III	Show 8*3 Encoder (CO: III) (BL: III)	10
III	Distinguish about 3*8 Decoder (CO: III) (BL: IV)	10
III	Inspect any four combinational circuit (CO: III) (BL: IV)	10
III	Subdivide four sequential circuit (CO: III) (BL: IV)	10
IV	Tell the parallel with serial in and out shift register (CO:	10
IV	Associate Shift Registers with the help of D Flipflop (CO:	10
IV	Experiment about memory unit and relate it with the RA	10
IV	Construct the types of counters (CO: IV) (BL: III)	10
IV	Complete about binary counter (CO: IV) (BL: III)	10
IV	Break down is RAM or ROM Volatile Memeory (CO: IV) (	10
IV	Categorize volatile and non-volatile memeory (CO: IV) (E	10
IV	Survey Multiplexer and its types (CO: IV) (BL: IV)	10
V	Tabulate the difference between isolated I/O and memc	10
V	Extend the diagram of Data Transfer with Source initiate	10
V	Relate Strobe and Handshaking (CO: V) (BL: III)	10
V	Experiment about the ASCII (CO: V) (BL: III)	10
V	Choose Input Output Interface (CO: V) (BL: III)	10
V	Discover the use I/O Bus in data transfer (CO: V) (BL: IV	10
V	Distinguish IO versus Memory Bus (CO: V) (BL: IV)	10
V	Explain Isolated versus Memory –Mapped I/O (CO: V) (B	10