

A complete web enabled Education Administration Software

Sr. No.	Topic Name
1	INTRODUCTION: Functional units of digital system and their interconnections
2	Buses, bus architecture
3	Types of buses and bus arbitration
4	Register, Bus and Memory Transfer
5	Processor Organization
6	General Registers Organization
7	Stack Organization
8	Arithmetic and logic unit: Look ahead carries adders
9	Addition and Subtraction
10	Multiplication: Signed operand multiplication,
11	Booth’s algorithm.
12	array multiplier.
13	Division and logic operations.
14	Restoring Division Algorithm
15	Non-Restoring Division Algorithm
16	Control Unit: Instruction types, formats
17	Instruction cycles and sub cycles (fetch and execute etc)
18	Micro-operations, execution of a complete instruction.
19	Program Control
20	Reduced Instruction Set Computer
21	Parallel Processing
22	Pipelining
23	Hardwired & Microprogrammed control unit.
24	Input / Output: Peripheral devices,
25	I/O interface, I/O ports
26	Interrupts: interrupt hardware,
27	types of interrupts and exceptions.
28	Modes of Data Transfer: Programmed I/O,

Sr. No.	Topic Name
29	Interrupt initiated
30	I/O and Direct Memory Access.,
31	I/O channels and processors. Serial Communication: Synchronous & asynchronous communication,
32	Standard communication interfaces
33	Memory: Basic concept
34	memory hierarchy
35	2D & 2 1/2D memory organization
36	ROM memories. Cache memories: concept and design issues & performance,
37	Address mapping-Direct Addressing
38	Address mapping- Associative
39	Address mapping – Set Associative
40	Auxiliary memories: magnetic disk, magnetic tape and optical disks
41	Virtual memory: concept implementation
42	Page Replacement Policies
43	Conclusion and problem discussion