

College of IT and Management Education

Lesson Plan

Sub : Computer Organizations and Architecture (MCA 102)
 Branch : MCA
 Semester : 1st Semester MCA (July,2016-December,2016)
 Name of the Faculty : Bishnupriya Mallick

Total Credit Point: 3

Total number of classes: 46

Sl No.	TOPIC PLANNED	SESSION
MODULE-I		17 HOURS
1.	Digital Logic, Truth Tables, Number system, Boolean algebra	1
2.	K map	1
3.	Flip - Flop	1
4.	Introduction: Basic architecture of computer, Functional units, Operational concepts, Von Neumann Concept.	1
5.	Bus structures, Instruction code, Instruction set, Instruction sequencing	1
6.	Instruction format, Instruction Cycle & Execution Cycle	2
7.	Addressing modes	1
8.	Micro instruction, Micro programmed vs. Hardwired controlled unit, Data path and control path design, RISC vs CISC.	2
9.	Design of ALU, Binary arithmetic, Addition and Subtraction of signed number	1
10.	Multiplication of Positive number	1
11.	Signed operand multiplication	1
12.	Division	1
13.	Floating point number representation and arithmetic.	2
14.	doubt clear class	1
MODULE-II		9 HOURS
15.	Memory Hierarchy, RAM, ROM	2
16.	Cache memory organization, Mapping techniques	2
17.	Virtual memory	2
18.	Memory Interleaving, Flash drives	1
19.	Secondary Storage	1
20.	doubt clear class	1
MODULE-III		11 HOURS
21.	Input/output: Accessing I/O devices, I/O mapped I/O, Memory Mapped I/O	1
22.	Programmed I/O	1
23.	Interrupt Driven I/O	1
24.	Synchronous and Asynchronous Data transfer, Standard I/O interfaces	1
25.	DMA data transfer	1
26.	Flynn's Classification	1
27.	Pipelining	2
28.	Array processing	1
29.	vector processing, Super Scalar	1
30.	doubt clear class	1
MODULE-IV		11 HOURS
31.	8085 Microprocessor	4

32.	Assembly level Programming using 8085 microprocessor	6
33.	doubt clear class	1

Text Books:

1. Mano.M. "Computer System and Architecture" (3rd Ed) (PHI).
2. Computer Architecture by Hwang and Briggs. (MGH).
3. Fundamentals of Computer Organisation by M V L N Raja Rao; Scitech publ.
4. Carl Hamacher, ZvonkoVranesic, SafwatZaky, "ComputerOrganization", 5th Edition, McGraw-Hill Education India

Reference Books:

1. William Stalling, "Computer Organization and Architecture", Pearson Education
2. J. P. Hayes, "Computer Architecture and Organization", MGH
3. A.S. Tananbaum, "Structured Computer Organization", Pearson Education



Faculty



Academic Coordinator



Principal