Lesson Plan

Name of the Faculty : DR. RASHMI DAHRA (PROFESSOR)

Discipline : BCA

Semester : 3rd

Subject : Computer System Architecture (BCA-203 B)

Lesson Plan Duration : 15 weeks (from July, 2018 to Dec., 2018)

Work Load (Lecture/Practical) per week (in hours):Lecture: 3, Practical:NA

Week	Theory		Practical	
	Lecture Day	Topic(including Assignment/Test)	Practical Day	Topic
1st	1st	Introduction to Computer and CPU(Computer Organization, Computer Design and Computer Architecture		
	2nd	Stored ProgramConcept-Von Neumann Architecture.		
	3rd	Introduction to Flynn‟s Classification SISD, SIMD,MIMD		
	T1	Tutorial---review of lectures		
2nd	4th	Register Transfer and Micro operations-Introduction to Registers, Register Transfer Language, Data movement among Registers and Memory,		
	5th	Micro operations: Introduction to micro operations, Types of micro operations--Logic Operations,		
	6th	Shift operations, Arithmetic and Shift operations		
	T2	Tutorial---problem/review		

		of lectures		
3rd	7th	Common Bus System : Introduction to Common Bus System		
	8th	Types of Buses(Data Bus, Control Bus, Address Bus),		
	9th	16 bit Common Bus System--Data Movement among registers using Bus.		
	T3	Tutorial---problem/ review of lectures		
4th	10th	Basic Computer Instructions- Introduction to Instruction,		
	11th	Types of Instructions (Memory Reference,)		
	12th	I/O Reference and Register Reference		
	T4	Tutorial---problem/review of lectures		
5th	13th	Instruction Cycle		
	14th	Instruction Formats (Direct and Indirect Address Instructions, Zero Address, One Address, Two Address and Three Address Instructions)		
	15th	Interrupt: Introduction to Interrupt and Interrupt Cycle		
	T5	Tutorial---problem/review of lectures		
6th	16th	Design of Control Unit: Introduction to Control Unit, Types of Control Unit (Hardwired &Micro programmed Control Unit).		
	17th	Addressing Modes- Introduction & different types of Addressing Modes.		
	18th	Assignment on above topics/ Test 3		

7th	19th	I/O Organization: I/O Interface Unit, types of ports (I/O port, Network Port, USB port, Serial and Parallel Port),		
	20th	Concept of I/O bus, Isolated I/O versus Memory Mapped I/O.		
	21st	I/O Data Transfer Techniques: Programmed I/O,		
	T6	Tutorial---problem/review of lectures		
8th	22nd	Interrupt Initiated I/O,		
	23rd	DMA Controller		
	24th	Assignment on above topics/ Test 4		
	T7	Tutorial---problem/review of lectures		
9th	25th	IOP.		
	26th	Synchronous and Asynchronous Data Transfer		
	27th	Concept of strobe and handshaking		
	T8	Tutorial---problem/review of lectures		
10th	28th	source and destination initiated data transfer		
	29th	Stack Organization: Memory Stack and Register Stack		
	30th	Assignment on above topics/ Test5		
	T9	Tutorial---problem/review of lectures		
11th	31st	Memory organization: Memory Hierarchy,		
	32nd	Main Memory (RAM and ROM chips		
	33rd	Logical and Physical Addresses		
	T10	Tutorial---problem/review of lectures		

12th	34th	Memory Address Map, Memory Connection to CPU		
	35th	Associative Memory		
	36th	Cache Memory		
	T11	Tutorial---problem/review of lectures		
13th	37th	Cache Memory (Initialization of Cache Memory, Writing data into Cache, Locality of Reference, Hit Ratio),		
	38th	Replacement Algorithms (LRU and FIFO		
	39th	Assignment on above topics/ Test6		
	T12	Tutorial---problem/ review of lectures		
14th	40th	Cache Memory Mapping Techniques: Direct Mapping,		
	41st	Associative Mapping and SetAssociative		
	42nd	Harvard Architecture, Mobile Devices Architecture (Android, Symbian and Windows Lite), Layered Approach Architecture		
15th	43rd	Problem session		
	44th	Problem session		
	45th	Problem session		

(DR. RASHMI DAHRA)

PROFESSOR