Name of the Faculty: Ms. Jaya
Discipline: Computer science & Engg.
Semester:5th
Subject: Computer Organization & Architecture(CSE 307N)
Work Load (Lecture/Practical) per week (in hours): Lectures- 3 Hours , Practicals- 3 Hours

Week	Theory	
	Lecture day	**Topic (including assignment/test)**
1st	**1st**	**Data representation and Computer arithmetic:** Introduction to Computer Systems
	2nd	**Data representation and Computer arithmetic:**Organization and architecture
	3rd	**Data representation and Computer arithmetic:**evolution and computer generations
2nd	**4th**	**Data representation and Computer arithmetic:**Fixed point representation of numbers
	5th	**Data representation and Computer arithmetic:**digital arithmetic algorithms for Addition, Subtraction(Assignment-1)
	6th	**Data representation and Computer arithmetic:**Multiplication using Booth's algorithm and Division using restoring and non restoring algorithms.
3rd	**7th**	**Data representation and Computer arithmetic:**Floating point representation with IEEE standards and its arithmetic operations.
	8th	**Data representation and Computer arithmetic:**Floating point representation with IEEE standards and its arithmetic operations.
	9th	Revision unit I
4th	**10th**	**Unit Test I**
	11th	**Basic Computer organization and Design:**Introduction
	12th	**Basic Computer organization and Design:**Instruction codes
5th	**13th**	**Basic Computer organization and Design:**stored program organization
	14th	**Basic Computer organization and Design:**computer registers and common bus system
	15th	**Basic Computer organization and Design:**computer instructions, timing and control, (Assignment-2)
6th	**16st**	**Basic Computer organization and Design:i**nstruction cycle: Fetch and Decode, (Assignment-2)
	17nd	**Basic Computer organization and Design:**Register reference instructions; Memory reference instructions.
	18rd	**Basic Computer organization and Design:**Input, output and Interrupt: configuration, instructions,
7th	**19th**	**Basic Computer organization and Design:**Program interrupt, Interrupt cycle,
	20th	**Basic Computer organization and Design:**Micro programmed Control organization,
	21th	**Basic Computer organization and Design:**address sequencing, micro instruction format and microprogram sequencer.
8th	**22th**	**Unit Test II**
	23th	**Central Processing Unit:**Introduction
	24st	**Central Processing Unit:**General register organization, stack organization
9th	**25rd**	**Central Processing Unit:**instruction formats,
	26th	**Central Processing Unit:**addressing modes

	27th	**Central Processing Unit:,** Data transfer and manipulation,
10th	**28th**	**Central Processing Unit:**Program control
	29th	**Central Processing Unit:**CISC and RISC: features and comparison. (Assignment -3)
	30th	**Central Processing Unit:**Pipeline and vector Processing
11th	**31st**	**Central Processing Unit:**Parallel Processing, Pipelining
	32nd	**Central Processing Unit:**Instruction Pipeline
	33rd	**Central Processing Unit:** Basics of vector processing and Array Processors.
12th	**34th**	**Unit Test III**
	35th	I**nput-output organization**:Introduction
	36th	**Input-output organization:** I/O interface. I/O Bus and interface modules
13th	**37th**	**Input-output organization:**I/O versus Memory Bus.
	38th	**Input-output organization:**Asynchronous data transfer: Strobe control, Handshaking
	39st	**Input-output organization:A**synchronous serial transfer
14th	**40rd**	**Input-output organization:**Modes of Transfer: Programmed I/O, Interrupt driven I/O
	41`th	**Input-output organization:,** Priority interrupt; Daisy chaining, Parallel Priority interrupt.
	42th	**Input-output organization:**Direct memory Access, DMA controller and transfer
15th	**43th**	**Input-output organization:**Input output Processor , CPU-IOP communication, I/O channel.
	44th	**Input-output organization:** Input output Processor , CPU-IOP communication, I/O channel.
	45th	**Unit Test IV**