

Name of the Faculty: **Bharti Sethi, Assistant Professor**
 Discipline : **Computer Science and Engineering**
 Semester : **4th**

Subject : **Microprocessor And Interfacing and Microprocessor And Interfacing Lab**
 Lesson Plan Duration: 15 Weeks (from feb 2023 to july 2023)

Work load (Lecture/Practical per week in hours: Lectures-03, Practical-02

Week	Theory		Practical	
	Lecture day	Topic(including assignment/test)	Practical day	Topic
1	1	Introduction to microprocessor	1	Study of 8085 Microprocessor kit.
	2	8085 microprocessor architecture		
	3	Instruction set		
2	4	Architecture of 8086	2	Write a program using 8085 and verify for : a. Addition of two 8-bit numbers. b. Addition of two 8-bit numbers (with carry).
	5	Block diagram of 8086		
	6	Details of sub-blocks		
3	7	BIU	3	Write a program using 8085 and verify for : a. 8-bit subtraction (display borrow) b. 16-bit subtraction (display borrow)
	8	Memory segmentation		
	9	Physical address computation		
4	10	Addressing modes	4	Write a program using 8085 for multiplication of two 8-bit numbers by repeated addition method. Check for minimum number of additions and test for typical data.
	11	Instruction formats		
	12	Pin diagram		
5	13	Assembler instruction format		
	14	Data transfer instructions		
	15	Arithmetic instructions		
6	16	Branch instructions	6	First viva-voce
	17	Looping instructions		
	18	Flag manipulation instructions		
7		I st Minor Test		Write a program using 8085 for division of two 8-bit numbers by repeated subtraction method and test for typical data.
8	19	Shift instructions	7	Study of 8086 microprocessor kit
	20	Rotate instructions		
	21	Directive		
9	22	Assignment Questions	8	Write a program using 8086 for division of a defined double word (stored in a data segment) by another double Word division and verify.
	23	Programming examples		
	24	Programming with an Assembler		
10	25	Programming examples	9	Write a program using 8086 for finding the square root of a given number and verify.
	26	Coding style		
11	27	Introduction to Stack	10	Write a program using 8086 for copying 12 bytes of data from source to destination and verify
	28	Stack Structure of 8086		
	29	Introduction to Subroutines		
12	30	MACROS	11	Write a program using 8086 and verify for: a. Finding the largest number from an array. b. Finding the smallest number from an array.
	31	BIOS(Basic Input/output System)		
	32	DOS(Disk Operating System)		
13	33	Architecture	12	Write a program using 8086 for arranging an array of numbers in descending order and verify.
	34	Modes and examples		
	35	Introduction to DMA process		
14		IInd Minor Test		
15	36	8237 DMA controller	13	Second viva-voce
	37	Assignment Evaluation		
	38	8259 Programmable interrupt controller		

