

Lesson Planning

Name of Faculty :Karishma
 Dicipline :CE
 Subject : MICROPROCESSORS AND PERIPHERAL DEVICES
 Lesson Plan dura :16 weeks(Jan'2020-July'2020)
 Work load (Lecture/Practical) per week (in hours):Lectures-03,Practicals-02

Week	Theory		Practical	
	Lecture day	Topic(Including assignment/test)	Practical Day	Topic
1	1	Evolution of Microprocessor	1	Familiarization of different keys of 8085 microprocessor kit and its memory map
	2	Typical organization of a microcomputer system and functions of its various blocks.		
	3	Microprocessor, its evolution, function and impact on modern society		
2	4	Architecture of a Microprocessor (With reference to 8085 microprocessor)	2	Steps to enter, modify data/program and to execute a programme on 8085 kit
	5	Concept of Bus, bus organization of 8085,		
	6	Concept of Bus, bus organization of 8085,		
3	7	Functional block diagram of 8085 and function of each block,	3	Writing and execution of ALP for addition and subtraction of two 8 bit numbers
	8	Pin details of 8085 and related signals		
	9	Pin details of 8085 and related signals		
4	10	Pin details of 8085 and related signals	4	Writing and execution of ALP for multiplication and division of two 8 bit numbers
	11	Demultiplexing of address/data bus generation of read/write control signals,		
	12	Steps to execute a stored programme		
5	13	Instruction Timing and Cycles	5	Writing and execution of ALP for arranging 10 numbers in ascending/descending order
	14	Instruction cycle,		
	15	machine cycle and T-states, Fetch and execute cycle.		
6	16	Programming (with respect to 8085 microprocessor)	6	Writing and execution of ALP for 0 to 9 BCD counters (up/down counter according to choice stored in memory)
	17	Brief idea of machine and assembly languages, Machines and Mnemonic codes.		
	18	Instruction format and Addressing mode.		
7	19	Identification of instructions as to which addressing mode they belong. Concept of Instruction set.	7	Interfacing exercise on 8255 like LED display control
	20	Identification of instructions as to which addressing mode they belong. Concept of Instruction set.		
	21	Explanation of the instructions of the following groups of instruction set.		
8	22	Data transfer group, Arithmetic Group, Logic Group, Stack,	8	Interfacing exercise on 8253 programmable interval timer
	23	I/O and Machine Control Group. Programming exercises in assembly language.		
	24	Programming exercises in assembly language.		
9	25	Memories and I/O interfacing	9	Interfacing exercise on 8279 programmable KB/display interface like to display the hex code of key pressed on display
	26	Concept of memory mapping, partitioning of total memory space.		
	27	Address decoding, concept of peripheral mapped I/O and memory mapped I/O. Interfacing of memory mapped I/O devices.		
10	28	concept of peripheral mapped I/O and memory mapped I/O	10	Practice
	29	Interfacing of memory mapped I/O devices		
	30	REVISION		
11	31	Interrupts	11	Practice
	32	Concept of interrupt, Maskable and non-maskable, Edge triggered and level triggered interrupts,		
	33	Software interrupt, Restart interrupts and its use, Various hardware interrupts of 8085,		
12	34	Servicing interrupts, extending interrupt system	12	Practice
	35	REVISION		
	36	ASSIGNMENT		
13	37	Data Transfer Techniques	12	Practice
	38	Concept of programmed I/O operations, sync data transfer, async data transfer (hand shaking),		
	39	sync data transfer, async data transfer (hand shaking),		
14	40	Interrupt driven data transfer, DMA, Serial output data, Serial input data	12	Practice
	41	Interrupt driven data transfer, DMA, Serial output data, Serial input data		
	42	Peripheral devices		
15	43	8255 PPI, 8253 PIT	12	Practice
	44	8257 DMA controller		
	45	Architecture of 8086 Microprocessor		
16	46	Block diagram, Minimum and Maximum mode, Pin and Signals	12	Practice
	47	REVISION		
	48	REVISION		