Lesson Plan

Name of the Institute :	CVRP
Department :	ETC
Semester/Division/Branch :	4th/ETC
Subject Name with code :	Th.-3 MICROPROCESSOR & MICROCONTROLLER
Total No. of Class (Required) :	75
Faculty Name :	SUCHISMITA SATPATHY

Class No.	Brief Description of the Topic/Chapter to be taught	Remarks
1	Discuss Microprocessor & its Applications.	
2	Distinguish between microprocessor & microcomputer.	
3	Discuss Evolution of microprocessor.	
4	Doubt Clearing class for Chapter-1	
5	Basic arcitecture of 8-bit microprocessor.	
6	Describe address bus, data bus, control bus & System Bus	
7	State & Explain general Bus structure	
8	Describe pin structure of 8085 Microprocessor.	
9	Describe internal Architecture of 8085 Microprocessor with a Block Diagram.	
10	Describe internal Architecture of 8085 Microprocessor with a Block Diagram.	
11	Describe three state registers & Concept of Multiplexing.	
12	Study the data transfer using tri-state registers	
13	Define registers of 8085 & Distinguish between SPR & GPR	
14	State & explain stack pointer, stack & stack top.	
15	State & explain stack pointer, stack & stack top.	
16	Doubt Clearing class for Chapter-2	
17	Doubt Clearing class for Chapter-2	
18	Explain need for addressing data & Differentiate between 1-adress,2-adress & 3-adress instructions with examples.	
19	Explain need for addressing data & Differentiate between 1-adress,2-adress & 3-adress instructions with examples.	
20	Define addressing modes with suitable examples.	
21	Explain different types of Instructions.(Data Transfer, Arithmetic, Logical, Branching, Stack& I/O	
22	Simple Programs of 8085 Instructions.	

23	Explain the basic assembler directives	
24	Doubt Clearing class for Chapter-3	
25	Doubt Clearing class for Chapter-3	
26	Program based on Logic Operations (AND,OR,Complement 1's&2's) & Masking of bits.	
27	Program based on Logic Operations (AND,OR,Complement 1's&2's) & Masking of bits.	
28	Counters & Time delay (Single Register, Register Pair, More than Two Register)	
29	Counters & Time delay (Single Register, Register Pair, More than Two Register)	
30	Looping, Counting & Indexing (Call/JMP etc).	
31	Stack & Subroutines Code conversion, BCD Arithmetic & 16Bit data Operation, Block Transfer.	
32	Stack & Subroutines Code conversion, BCD Arithmetic & 16Bit data Operation, Block Transfer.	
33	Compare between two numbers,Array Handling (Largest number & smallest number in the array)	
34	Compare between two numbers,Array Handling (Largest number & smallest number in the array)	
35	Doubt Clearing class for Chapter-4	
36	Doubt Clearing class for Chapter-4	
37	Define T-State, Fetch cycle, Machine Cycle, Instruction cycle & discuss the concept of timing diagram.	
38	Define T-State, Fetch cycle, Machine Cycle, Instruction cycle & discuss the concept of timing diagram.	
39	Differentiate between instruction cycle, machine cycle & T-state.	
40	Draw timing diagram for memory read, memory write, I/O read, I/O write machine cycle.	
41	Draw timing diagram for memory read, memory write, I/O read, I/O write machine cycle.	
42	Draw a neat sketch for the timing diagram for 8085 instruction (MOV, DCR, MVI, LDA, DCX).	
43	Draw a neat sketch for the timing diagram for 8085 instruction (MOV, DCR, MVI, LDA, DCX).	
44	Doubt Clearing class for Chapter-5	
45	Doubt Clearing class for Chapter-5	
46	Define interfacing.Describe the pin diagram of 8255 chip and explain function of each pin	
47	Define interfacing.Describe the pin diagram of 8255 chip and explain function of each pin	
48	Describe internal architecture of 8255. (PPI),Define Mapping & Distinguish between Memory mapping & I/O Mapping.	
49	Describe internal architecture of 8255. (PPI),Define Mapping & Distinguish between Memory mapping & I/O Mapping.	
50	Explain Memory interfacing with RAM & EPROM to Microprocessor	
51	Explain Functional Block Diagram 8257 DMA controller.	

52	Explain Functional Block Diagram 8257 DMA controller.	
53	Explain Functional Block Diagram 8259 Programming Interrupt Controller.Explain the functional Block Diagram 8251(USART)	
54	Explain Functional Block Diagram 8259 Programming Interrupt Controller.Explain the functional Block Diagram 8251(USART)	
55	Describe ADC & DAC with Interfacing.	
56	Design Interface a traffic light control system using 8255.	
57	Design Interface a traffic light control system using 8255.	
58	Write interfacing programme for stepper motor control.	
59	Doubt Clearing class for Chapter-6	
60	Doubt Clearing class for Chapter-6	
61	Explain the block diagram of a Microprocessor based system.	
62	Explain the internal architecture of 8086-Programming model.	
63	Explain pin details of 8086 / 8088.	
64	Explain the basic 8086 system timing diagram	
65	Explain the Instruction format-Memory addressing machine.	
66	Explain minimum and maximum mode of 8086 operation.	
67	Explain addressing modes of 8086.	
68	Discuss instruction set-Data transfer-Arithmetic and logical, Branching-loop control.	
69	Discuss instruction set-Data transfer-Arithmetic and logical, Branching-loop control.	
70	Write simple program using 8086 instructions	
71	Write simple program using 8086 instructions	
72	Doubt Clearing class for Chapter-6	
73	Doubt Clearing class for Chapter-6	
74	Previous Year Semester Question discussion	
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(Sign. of Faculty)

(Sign. of H.O.D./In-charge)