MAHARAJA POLYTECHNIC, TARABAI, BHUBANESWAR.

LESSON PLAN

NAME OF FACULTY:- Manisha Rani Samal

BRANCH & SEMESTER:-ETC (4TH SEM)

TOTAL NO. OF STUDENT IN THE CLASS:- 30

TOTAL NO. OF CLASSES REQUIRED:-75

SESSION:-2021-22

SUBJECT NAME:-- MPMC

SUBJECT CODE:- TH3

Sl. No.	Topics to be covered	Topics covered on date	Total no. of students present	Verified By HOD	Verified by the principal	Remark
	Unit-1:Microprocessor (Architecture and Programming-8085-8-bit)					
1	Introduction to Microprocessor and Microcomputer & distinguish between them.	14/3/22	10			
2	Concept of Address bus, Data bus, Control bus & System Bus	15/3/22	18			
3	General Bus structure Block diagram	16/3/22	24			
4	Basic Architecture of 8085 (8 bit) Microprocessor	17/3/22	22			
5	Signal Description (Pin diagram) of 8085 Microprocessor	21/3/22	24			
6	Register Organizations,Distinguish between SPR & GPR, Timing & Control Module	22/3/22	25			
7	Stack, Stack pointer &Stack top	23/3/22	25			
8	Interrupts:-8085 Interrupts, Masking of Interrupt(SIM,RIM)	24/3/22	27			

Unit-2: Instruction Set and Assembly Language Programming

10	Addressing data & Differentiate between one-byte, two-byte &three-byte instructions with examples				
11	Addressing modes in instructions with suitable examples	25/3/22	24		
12	Instruction Set of 8085(Data Transfer, Arithmetic, Logical, Branching, Stack& I/O , Machine Control)	28/3/22	22		
13	Simple Assembly Language Programming of 8085 Simple Addition & Subtraction	29/3/22	24		
14	Logic Operations (AND, OR, Complement 1's & 2's) & Masking of bits	30/3/22	23	𝘨𝘰𝘦𝘭	
15	Counters & Time delay (Single Register, Register Pair, More than Two Register)	31/3/22	24		
16	Looping, Counting & Indexing (Call/JMP etc).	4/4/22	25		
17	Stack & Subroutine programes .	5/4/22	24		
18	Code conversion, BCD Arithmetic & 16 Bit data Operation, Block Transfer	6/4/22	25		
19	Compare between two numbers	7/4/22	23		
20	Array Handling (Largest number & smallest number in the array)	8/4/22	23	𝘨𝘰𝘦𝘭	
21	Memory & I/O Addressing.	11/4/22	25		𝘨𝘰𝘦𝘭
	Unit-3: TIMING DIAGRAMS.				
22	Define opcode, operand, T-State, Fetch cycle, Machine Cycle, Instruction cycle & discuss the concept of timing diagram	12/4/22	22		
		13/4/22	25		
23	Draw timing diagram for memory read, memory write, I/O read, I/O write machine cycle.	19/4/22	26		
24	Draw a neat sketch for the timing diagram for 8085 instruction (MOV, MVI, LDA instruction)	29/4/22	24		𝘨𝘰𝘦𝘭
	Unit-4 Microprocessor Based System Development Aids				
25	Concept of interfacing	29/4/22	25		
26	Define Mapping &Data transfer mechanisms - Memory mapping & I/O Mapping	26/4/22	24		

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No.	Topic	Date		
	Concept of Memory Interfacing - Interfacing EPROM & RAM Memories.			
28	Concept of Address decoding for I/O devices	4/5/22	26	
29	Programmable Peripheral Interface. 8255	5/5/22	27	
30	ADC & DAC with Interfacing	6/5/22	23	
31	Interfacing Seven Segment Displays	9/5/22	22	
32	Generate square waves on all lines of 8255	10/5/22	26	
33	Design interface a traffic light control system using 8255.	11/5/22	24	
34	Design interface for stepper motor control using 8255.	12/5/22	25	
35	Basic concept of other Interfacing DMA controller, USART	13/5/22	24	
	Unit-5 Microprocessor (Architecture and Programming-8086-16 bit)	20/5/22	24	
36	Register Organisation of 8086	24/5/22	24	
37	Internal architecture of 8086			
38	Signal Descriptionof 8086	26/5/22	24	
39	General Bus Operation& Physical Memory Organisation			
40	MinimumMode&Timings,	28/5/22	25	
41	Maximum Mode& Timings,	-do-		
42	Interrupts and Interrupt Service Routines, Interrupt Cycle, Non-Maskable Interrupt, Maskable Interrupt	31/5/22	24	
43	8086 Instruction Set & Programming: Addressing Modes, Instruction Set, Assembler Directives and Operators	30/5/22	11	
44	Simple Assembly language programmingusing 8086 instructions	3/5/22	9	
	Unit-6 Microcontroller (Architecture and Programming-8 bit):-			
45	Distinguish between Microprocessor & Microcontroller	1/6/22	17	
46	8 bit & 16 bit microcontroller	-do-		
47	CISC & RISC processor	2/6/22	17	
48	Architectureof8051Microcontroller	3/6/22	17	
49	Signal Descriptionof8051Microcontrollers	-do-		
50	Memory Organisation-RAM structure, SFR	6/6/22	17	
51	Registers,timers,interruptsof8051Microcontrollers	7/6/12	10	
52	Addressing Modes of 8051	-do-		

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	Simple 8051 Assembly Language ProgrammingArithmetic & Logic Instructions , JUMP, LOOP, CALL Instructions, I/O Port Programming	
54	Interrupts, Timer & Counters	
55	Serial Communication	
56	Microcontroller Interrupts and Interfacing to 8255	
57	QUESTIONS & ANSWERS	

SIGN OF FACULTY

SIGN OF HOD

SIGN OF PRINCIPAL

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