PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY

Department Of Computer Science & Engineering

Lesson Plan

Semester: 4TH

Course Title: MICROPROCESSOR & INTERFACING

Course No. ES-301A

Sr. No.	Lecture No.	Topics To Be Covered
1	L 1	Introduction to subject, Introduction to Microprocessors, Evolution of Microprocessor
2	L 2	**Unit: 1**8085 CPU Architecture: Introduction to 8085 – 8085 Architecture.
3	L 3	Pin Details
4	L 4	Addressing Modes,
5	L 5	Instruction Set
6	L 6	Instruction Set
7	L 7	Assembler Directives
8	L 8	Instruction Timing Diagram
9	L 9	**Unit: 2** 8086 CPU Architecture: 8086 Block diagram;
10	L 10	Description of data registers, address registers; pointer and index registers, Queue, BIU and EU.
11	L 11	PSW
12	L 12	8086 Pin diagram description
13	L 13	Generating 8086 CLK and reset signals using 8284. WAIT state generation

14	L 14	Microprocessor BUS types and buffering techniques
15	L 15	8086 Minimum mode module
16	L16	Maximum mode CPU module
17	L 17	8086 CPU Read/Write timing diagrams in minimum mode and maximum mode
18	L 18	Address decoding techniques. Interfacing SRAMS; ROMS/PROMS
19	L 19	Address decoding techniques. Interfacing SRAMS; ROMS/PROMS
20	L 20	Interfacing and refreshing DRAMS.
21	L 21	**Unit: 3** 8086 Instruction Set: Instruction formats,
22	L 22	Addressing modes
23	L 23	Data transfer instructions
24	L 24	String instructions, logical instructions
25	L 25	Arithmetic instructions
26	L 26	Transfer of control instructions; process control instructions
27	L 27	Assembler directives
28	L 28	**Unit-4** Basic I/O Interface: Parallel and Serial I/O Port design and address decoding. Memory mapped I/O Vs Isolated I/O
29	L 29	Intel's 8255 description and interfacing with 8086
30	L 30	Intel's 8255 description and interfacing with 8086
31	L 31	ADCs - types, operation and interfacing with 8086
32	L 32	DACs - types, operation and interfacing with 8086
33	L 33	Interfacing of Keyboards, alphanumeric displays

34	L 34	Interfacing of multiplexed displays
35	L 35	Interfacing of stepper motor
36	L 36	Interfacing of optical encoder with 8086
37	L 37	Intel's 8251 description and interfacing with 8086
38	L 38	Interrrupts and DMA: 8086 Interrupt mechanism; interrupt types and interrupt vector table.
39	L 39	Applications of interrupts
40	L 40	Intel's 8259
41	L 41	DMA operation. Intel's 8237

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