

HARYANA COLLEGE OF TECHNOLOGY AND MANAGEMENT, KAITHAL
I.T.Department

Lesson Plan
IV SEMESTER IT JAN-MAY 2009
Course Handout

Details Regarding the course lesson Plan

Course No. ECE-216E
Course Title Microprocessor and Interfacing
Instructor –in-charge Er. Rakesh Sharma

CLASS WORK: 50
EXAM: 100
TOTAL: 150
DURATION OF EXAM: 3Hrs

Text book:

- Text book: Microprocessor Architecture, Programming & Applications with 8085: Ramesh S Gaonkar; Wiley Eastern Ltd.
- The Intel Microprocessors 8086- Pentium processor : Brey; PHI

Reference book:

- Microprocessors and interfacing : Hall; TMH
- The 8088 & 8086 Microprocessors-Programming, interfacing, Hardware & Applications :Triebel & Singh; PHI
- Microcomputer systems: the 8086/8088 Family: architecture, Programming & Design: Yu-Chang Liu & Glenn A Gibson; PHI.
- Advanced Microprocessors and Interfacing : Badri Ram; TMH

NOTE: Eight questions will be set in all by the examiners taking at least questions from each unit. Students will be required to attempt five questions in all at least one from each unit.

Lecture schedule:

Lecture	Topics	Date
Lecture 1	Introduction to microprocessor	2-Feb-09
Lecture 2	8085 microprocessor : Architecture	5-Feb-09
Lecture 3	8085 microprocessor :instruction set	6-Feb-09
Lecture 4	8085 microprocessor: interrupt structure	7-Feb-09
Lecture 5	8085 microprocessor: assembly language programming.	9-Feb-09
Lecture 6	Semiconductor memory and its types- Static and dynamic RAM, ROM, EPROM, EEROM and NOVRAM	12-Feb-09
Lecture 7	Interfacing memory- Interfacing SRAM	13-Feb-09
Lecture 8	Interfacing memory- Interfacing DRAM	16-Feb-09
Lecture 9	Interfacing memory- Interfacing EPROM	19-Feb-09
Lecture10	Timing of RAM and ROM signals	20-Feb-09

Lecture11	Revision of first unit	21-Feb-09
Lecture12	The 8086 microprocessor architecture	26-Feb-09
Lecture13	Block diagram of 8086	27-Feb-09
Lecture14	Details of sub-blocks such as EU, BIU	2-Mar-09
Lecture15	Memory segmentation and physical address computations	5-Mar-09
Lecture16	Program relocation	6-Mar-09
Lecture17	Addressing modes	7-Mar-09
Lecture18	Instruction formats	9-Mar-09
Lecture19	Instruction execution timing	19-Mar-09
Lecture20	Assembler instruction format	20-Mar-09
Lecture21	Data transfer instructions	21-Mar-09
Lecture22	Arithmetic instructions	23-Mar-09
Lecture23	Branch instructions	26-Mar-09
Lecture24	Looping instructions, NOP and HLT instructions	27-Mar-09
Lecture25	Flag manipulation instructions	30-Mar-09
Lecture26	Logical instructions	2-Apr-09
Lecture27	Shift and rotate instructions	4-Apr-09
Lecture28	Directives and operators	6-Apr-09
Lecture29	Programming examples	9-Apr-09
Lecture30	Revision of second unit	10-Apr-09
Lecture31	The 8255 PPI chip	13-Apr-09
Lecture32	Architecture	16-Apr-09
Lecture33	Control words and modes	17-Apr-09
Lecture34	Examples :Interfacing D/A and A/D	18-Apr-09
Lecture35	Revision of third unit	27-Apr-09
Lecture36	Introduction to DMA process	30-Apr-09
Lecture37	8237 DMA controller	1-May-09
Lecture38	8259 Programmable interrupt controller	2-May-09
Lecture39	Programmable interval timer chips	4-May-09
Lecture40	Revision of fourth unit	7-May-09
Lecture41	Revision of all syllabus	8-May-09