

SHARIATPUR POLYTECHNIC INSTITUTE

BURIRHAT, SHARIATPUR

SEMESTER PLAN

SEMESTER: 6th

Course name : Microprocessor & interfacing

Course code : 66662

Chapter	Class no	Chapter in details	Class \ Quiz test
01	01	1.1- Define the microprocessor and microcomputer. 1.2- Distinguish between microprocessor and microcomputer. 1.3- Distinguish between microprocessor and microcontroller.	
	02	1.4- Describe the block diagram of simple microcomputer. 1.5- Describe the evaluation of microprocessor (4,8,16,32 & 64 bit microprocessor) 1.6- Mention the main characteristics of different types of microprocessor.	
02	03	2.1- Mention the general features of 8086/8088 microprocessor. 2.2- Describe the pin and signal diagram of 8086 / 8088 microprocessor.	
	04	2.3- Distinguish between maximum and minimum Mode of 8086/8088 microprocessor. 2.4- Describe the architecture of 8086 microprocessor.	
	05	2.5- Describe the register structure of 8086 Microprocessor. 2.6- Explain the instruction execution sequence of 8086 Microprocessor. 2.7- Mention the difference between 8086 and 8088 Microprocessor.	Quiz Test-01
03	06	3.1- Sketch the 8086 system memory interface. 3.2- State the meaning of even & odd address Boundaries.	
	07	3.3- Describe the organization of IBM address space of 8086 microprocessor. 3.4- Explain the generation of physical address showing the relationship between logical segment address & offset and	

	08	3.5- Describe the hardware organization of the memory Address space of 8086. 3.6- Describe the memory read and write bus cycle of 8086 microprocessor. 3.7- Explain the technique to de-multiplex the system Bus.	
04	09	4.1- Describe the addressing mode of 8086 Microprocessor. 4.2- Describe the software mode of the 8086 Microprocessor.	
	10	4.3- Explain the effect in registers before and after the instruction execution for different addressing modes Of 8086 microprocessor. 4.4- Describe the 8086 instruction set. 4.5- Explain the instruction format of 8086 Microprocessor.	Class Test-01
05	11	5.1- Describe the 8086 system I/O interface. 5.2- Describe the I/O address space of the 8086 system.	
	12	5.3- Describe the I/O read and I/O write bus cycle of 8086 microprocessor. 5.4- Define programmable peripheral. 5.5- Mention the commonly used support chips and Purpose of those.	
	13	5.6- Describe the operation of PPI using block diagram. 5.7- Configure the control word of the control register of PPI for simple I/O operations.	MED TERM
06	14	6.1- Mention the types of interrupts. 6.2- Describe the common features of different types of interrupts.	
	15	6.3- Sketch the map of interrupt vector table. 6.4- State the function and use of each address pointer Or vector.	
	16	6.5- Describe the function, format and operation of interrupt instructions. 6.6- Describe the external hardware interrupt interface Of the 8086 microprocessor.	Quiz Test-02
07	17	7.1- Define the assembler pseudo instruction. 7.2- Describe the use of assembler directives (i.e. SEGMENT, ENDDS, ASSUME, DUP, etc.) 7.3- Describe the use of program development tools (i.e. editor, assembler, linker, locator debugger and emulator.)	
	18	7.4- Explain the sequential, IF-THEN-ELSE, WHILE-DO and REPEAT-UNTILL structure in 8086 assembler Language with pseudo code and flow chart. 7.5- Write assembly language programs.	
08	19	8.1- List some 16 bit microprocessor of different Company with brief specification.	

		8.2- State the meaning of real mode and protected mode operation of Intel 80286 microprocessor.	
	20	8.3- Describe the protected mode memory addressing technique. 8.4- List the names of other x86 family processors including Pentium series and state the brief specification.	
	21	8.5- Define superscalar architecture of Pentium processor. 8.6- State the function of BIST in Pentium processor.	Class Test-02
	22	8.7- State multiprocessing and parallel processing. 8.8- Define multi-core processor (I.e. Dual core, core ix). 8.9- Write down the advantages of multi-core processor.	
09	23	9.1- Describe the interfacing of LED display with program to the microprocessor. 9.2- Describe the interfacing of seven segment LED display with program to the microprocessor.	
	24	9.3- Describe the interfacing of Multiple Digit Display with program to the microprocessor. 9.4- Describe the method of interfacing of stepper motor to the microprocessor.	

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