





This document is a part of Main Course File		Document No.: CFM – 8
	<b>SARDAR VALLABHBHAI PATEL EDUCATION SOCIETY MANAGED</b>	
	<b>N. G. PATEL POLYTECHNIC</b>	
<b>ELECTRICAL ENGINEERING DEPARTMENT</b>		
<b>ASSIGNMENT</b>		
<b>Course Name (With Code):</b> Microprocessor and Controller Applications (4360902)		
<b>Semester / Year:</b> Sixth / Third		
<b>Assignment Number:</b> 1		
<b>Assignment CO Number:</b> 4360902.1		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	List out data transfer and arithmetic instructions for 8085 microprocessor.	
2	What is interrupt in 8085? Enlist the different interrupts.	
3	List out primary operation of 8085 microprocessor.	
4	Draw pin diagram of 8085.	
5	Draw the architecture diagram of 8085 microprocessor.	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	What is BUS? Explain different types of BUS in 8085 microprocessor.	
2	Write short note on flags registers of 8085.	
3	Explain in detail the registers of 8085 microprocessor.	
4	Explain the Instructions: (i) MOVIB, 25h (ii) ADC C (iii) LDA 6000h (iv) INX H	
5	Explain the working of Stack pointer and ALU in details in 8085.	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	What is an instruction? Explain the classification of 8085 microprocessor instructions.	
2	Draw the architecture diagram of 8085 microprocessor and give the functions of each part.	
3	Draw the pin diagram of 8085 microprocessor & explain the functions of any ten pins.	
4	Write down types of addressing modes of 8085 microprocessor & explain any three in detail.	
5		
Mr. Nirav C. Pandya		
<b>Prepared By: (Name of Faculty (ies)) with signature</b>		<b>Signature of Head of Department</b>

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<b>Course Name (With Code):</b> Microprocessor and Controller Applications (4360902)		
<b>Semester / Year:</b> Sixth / Third		
<b>Assignment Number:</b> 2		
<b>Assignment CO Number:</b> 4360902.2		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	Comparison between microprocessor and microcontroller.	
2	Draw the pin diagram of 8051 microcontroller.	
3	Explain TCON register of 8051 microcontroller.	
4	Explain TMOD register of 8051 microcontroller.	
5	List the flag registers of 8051 microcontroller.	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	Explain timers of 8051 microcontroller.	
2	State & explain program status word (PSW) for 8051 microcontroller.	
3	List the ports of 8051 microcontroller. Explain any one in detail.	
4	What are SFRs in 8051? Explain their utility.	
5	Explain internal memory organization of 8051.	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	Draw the pin diagram of 8051 microcontroller & explain functions of any ten pins.	
2	Draw the architecture diagram of 8051 microcontroller and give the functions of each part.	
3	Draw and explain 8051 interfacing with external Memory.	
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<b>Course Name (With Code):</b> Microprocessor and Controller Applications (4360902)		
<b>Semester / Year:</b> Sixth / Third		
<b>Assignment Number:</b> 3		
<b>Assignment CO Number:</b> 4360902.3		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	Compare static RAM & dynamic RAM.	
2	Classify different types of memories.	
3	Draw and Explain interfacing of 512 Bytes of RAM with 8085.	
4	State different applications of microprocessor.	
5	State different applications of microcontroller.	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	Draw & explain block diagram of furnace temperature controller using microprocessor.	
2	Explain SCR firing angle control using microprocessor.	
3	Explain Traffic Light controller using Microcontroller.	
4	Give the applications of 8 bit and 32 bit microcontrollers.	
5	Draw and explain microprocessor based data acquisition system.	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	State the data transfer schemes used in microprocessor& explain it.	
2	What is Data Acquisition system? Explain it with diagram.	
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<b>Course Name (With Code):</b> Microprocessor and Controller Applications (4360902)		
<b>Semester / Year:</b> Sixth / Third		
<b>Assignment Number:</b> 4		
<b>Assignment CO Number:</b> 4360902.4		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	Illustrate difference between PLC & digital computer.	
2	Illustrate difference between PLC & relay panel.	
3	State the application of PLC.	
4	Write any three advantages of PLC.	
5	What is Role of automation in Industries?	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	List out advantages and disadvantages of PLC.	
2	List out applications of SCADA.	
3	Compare PLC and SCADA system.	
4	Write a short note on applications of SCADA.	
5	Explain working of each module of PLC.	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	Draw the block diagram of SCADA and explain it.	
2	Draw the architecture of PLC & explain it.	
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