

Microprocessors and Microcontrollers Laboratory (0-0-3) Subject Code: ECC211

SL No	Name of the Experiments	No of Week
1	Performing assembly language programming of addition, multiplication, division and sorting numbers using 8085 μ p.	01
2	Interfacing of key board, display, A/D and D/A converters.	01
3	Assembly language programming to find the factorial of a number, sorting numbers and matrix multiplication using 8086 μ p.	01
4	8086 μ p interfacing: a) parallel port interface (square wave generation). (a) Counter and timer interface (polling and using interrupts). (b)ADC/DAC interfacing.	01
5	(a) Design a traffic light controller using assembly language programming. (b) Design a digital clock using 8086 μ p.	01
6	Write a program in assembly language of 8051 μ c to find the second largest in an array of 10 numbers stored from a memory location.	01
7	Design a 8051 μ c based circuits and its necessary program to implement n bit binary counter using LEDs.	01
8	Modify the above program to implement up/ down counter using the following input specification: (a) Two general purpose I/O pins as control inputs. (b) One interrupt pin as a control input.	01
9	Interface two seven segment displays (in multiplexing mode) with a 8051 μ c to digital (seconds) clock.	01
10	(a) Design a 8 bit pn sequence generator circuit based on 8051 μ c. (b) Design a H-bridge circuit to control the speed of a DC motor using 8051 μ c.	01
11	Design a circuit to interface a stepper motor with an 8051 μ c.	01
12	(a) Interface a DAC with 8051 μ c and generate a ramp output through it. (b) Interface an ADC with 8051 μ c and show the corresponding output in two seven segment displays.	01
13	(a) Develop a circuit to implement a microcontroller which can program ATMEL 8051 series. (b) Design of circuits and realizing automation by implementation of advanced microcontrollers.	01
14	End Semester Lab Examination and Viva – Voce	01