Lesson Plan

Name of Faculty: Pooja Malik
Discipline: Electronics and Communication
Semester: 5th
Subject: Microcontroller
Lesson Plan Duration: 15 weeks(from Sept. 2022 to Jan. 2023)
Work Load (lecture/practical)per week (in hours): Lectures- 04, practical- 03

Week	Theory		Practical	
	Lecture Day	Topic(including assignment/test)	Practical Day	Practical Topic
1	1	Unit 1 : Microcontroller series (MCS) – 51 Overview introduction	1	Familiarization with Micro-controller Kit and its different sections
	2	Architecture of 8051Microcontroller	2	
	3	Pin details	3	
	4	I/O Port structure		
2	5	Memory Organization	4	Familiarization with Assembly Language Programming (PC Based)
	6	Special Function Register(SFR)	5	
	7	External Memory		
	8	Revision of chapter 1	6	
3	9	Unit 2 : Instruction Set , Instruction Set of 8051	7	Programming to interface switches and LEDs
	10	Addressing Modes,	8	
	11	Types of Instructions		
	12	Timer operation	9	
4	13	Serial Port operation	10	Programming and interface of Seven Segment and LCD
	14	Assignment 1	11	
	15	Interrupts		
	16	Revision of chapter 2	12	
5	17	Ist sessional test	13	Viva Voice
	18	Unit 3 : Assembly/C programming for Micro controller Assembler directives	14	
	19	Assembler operation		
	20	Compiler operations	15	
6	21	De bugger	16	Programming and interfacing of Graphical LCD
	22	Revision of chapter 3	17	
	23	Assignment 2		
	24	Seminar	18	
7	25	Mock test	19	Programming to interface Hex 4x4 matrix Keypad
	26	Revision	20	
	27	Revision		
	28	Unit 4: Design and Interface introduction	21	
8	29	Keypad interface	22	Viva Voice
	30	7- segment interface	23	

	31	LCD, A/D interface with programming.		
	32	D/A and RTC interface with programming.	24	
9	33	Revision of chapter 4	25	Programming for A/D converter, result on LCD
	34	Revision of chapter 4	26	
	35	Seminar		
	36	Mock test	27	
10	37	2nd Sessional Test	28	Programming for D/A converter, result on LCD.
	38	Unit 5: Introduction of PIC Micro controllers	29	
	39	PIC microcontroller architecture		
	40	Explanation of Memory structure, I/O ports	30	
11	41	Timers and oscillators	31	Viva Voice
	42	Registers	32	
	43	Application of PIC microcontroller		
	44	Revision of chapter 5	33	
12	45	Revision of chapter 5	34	Programming for serial data transmission from PC to Kit or Vice versa.
	46	Seminar	35	
	47	Mock test		
	48	Revision of 3rd sessional test	36	
13	49	Revision of 3rd sessional test	37	Viva Voice
	50	Assignment 3	38	
	51	3rd sessional test		
	52	Revision of chapter 1 Architecture of 8051Microcontroller, Pin details, I/O Port structure	39	
14	53	Memory Organization, Special Function Register(SFR), External Memory	40	Programming and interfacing of RELAY and Buzzer
	54	Revision of chapter 2	41	
	55	Unit 2 : Instruction Set , Instruction Set of 8051		
	56	Revision of chapter 3: Assembly/C programming for Micro controller Assembler directives	42	
15	57	Revision of chapter 4: Keypad interface, segment interface	43	Viva Voice
	58	LCD, A/D, D/A	44	
	59	RTC interface with programming.		
	60	Revision of chapter 5: Introduction of PIC Micro controllers	45	