Name of the Faculty: Sh. Sanjay Kumar   Discipline: Electronics and Communication Engg.   Subject: PLC & SCADA
Semester: Vth

Week	Lecture day	Theory — Topic (including assignment/ test)	Practical — Topic	Week	Lecture day	Theory — Topic (including assignment/ test)	Practical — Topic
1st	1	UNIT-1 Introduction of PLC, limitations of relays and advantages of PLCs over electromagnetic relays.	Show PLC modules and components in lab/industry or through online videos	8th	15	Data handling instructions	Write a ladder diagram program for bottling plant
	2	PLC Operation or working, PLC Architecture and building blocks, Functions of various block			16	Comparison Instructions, Sequencer instructions	
2nd	3	Different programming languages	Demonstration of ladder diagram programming using NO, NC and	9th	17	Assignment No. 2, Revision of 2nd	Write a ladder diagram program for drink dispenser.
	4	PLC applications and manufacturers, PLC selection criteria.			18	2nd sessional test	
3rd	5	UNIT -2 Number systems and conversions	Write a ladder diagram program for switching ON-OFF light.	10th	19	UNIT-5 Introduction of SCADA, Project and Tag creation	Write a ladder diagram program for traffic light control.
	6	Binary arithmetic, Binary codes, Boolean algebra, logic gates			20	Visibility and text animation, Numeric display and Numeric , input, Concept of Label, Arrow input	
4th	7	Introduction to Ladder logic, Basic components and their symbols	Write a ladder diagram program for liquid level control	11th	21	Vertical slider, horizontal slider, Creation of various animations like color	Write a ladder diagram program for temperature control
	8	Fundamental of ladder diagrams, Ladder logic functions			22	Fill horizontal position, Vertical position, height	
5th	9	Boolean logic and relay logic	Write a ladder diagram program for industry process control	12th	23	Width and touch Alarming	Show online videos to demonstrate the creation and animation of graphics for various applications using
	10	Assignment No.1, 1st sessional test			24	Data Logging., Assignment no. 3	
6th	11	Unit-3 Introduction, Input and output data files, status file	Write a ladder diagram program for main door control cell	13th	25	Revision of 3rd sessional test	Industrial visit to monitor the actual working of PLC and SCADA
	12	Bit data file, Timer data file, Counter data file, Control data file			26	Revision of very short answer questions, 3rd sessional test	
7th	13	Integer data file and Float data file	Write a ladder diagram m program for which	14th	27	Revision of short answer questions	Viva-Voice