DRONACHARYA
College of Engineering

PLC & SCADA(EE-417-F)

1. List different automation tools used in process. State its need in process.
2. Describe the role of PLC in automation.
3. Draw the block diagram of PLC and label it.
4. Describe the PLC operation with operating cycles.
5. State the classification of PLC based on type & size.
6. State the need of HMI.
7. Draw the functional block diagram of SCADA with neat label c)
8. Explain the types of local HMI operator panels.
9. List the different applications of SCADA
10. Explain how application specific modules enhance a PLC's functionality.
11. Draw a ladder diagram for a three motor system having the following conditions : Motor 1 (M1) starts as soon as the start switch is ON, after 10 seconds M1 goes OFF and motor 2 (M2) starts. After 5 seconds M2 goes OFF and Motor 3 (M3) starts. After 10 seconds M3 goes OFF and M1 starts and cycle is repeated.
12. Describe the interfacing between PLC and SCADA with diagram. List two types of communication.
13. Define SCADA. Describe with diagram any one application of SCADA
14. Give the configuration of PLC hardware.
15. Explain Rack & how it helps in communication between CPU and I/O module
16. Explain the block diagram of power supply
17. Explain Input ON/OFF and analog devices in detail.
18. Explain Output ON/OFF and analog devices in detail.
19. Draw and explain block diagram of PID control using PLC.
20. Draw and explain SCADA architecture in detail.
21. State applications of SCADA.
22. Explain :

i) Human Machine Interface.
ii) Master Terminal Unit.
iii) Remote Terminal Unit.