Q.26 What is Rung and Rail in PLC?

Q.27 What are industrial automation tools?

Q.28 What is the PLC Scan cycle?

Q.29 What is the Redundant System?

Q.30 What are difference between PLC and SCADA?

Q.31 Explain briefly the Remote Terminal Unit.

Q.32 Explain the difference between compact and Modular PLC?

Q.33 Explain comparison instruction of PLC like equal, not equal, greater, greater than equal to.

Q.34 What is Real Time Clock (RTC) in a PLC?

Q.35 Explain briely concept of DCS.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions.   (2x10=20)

Q.36 What is SCADA? What are the main Functions of SCADA System?

Q.37 What is the different programming languages used in PLC? Explain.

Q.38 Draw block diagram of PLC and explain function of each block in detail?

6th Sem / Eltx
Subject:- Industrial Automation

Time : 3Hrs.   M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory   (10x1=10)

Q.1 An OR function implemented in ladder logic uses.
   a) Normally-closed contacts in series
   b) Normally-open contacts in series
   c) A single normally-closed contact
   d) Normally-open contact in parallel

Q.2 The most popular language for PLCs is
   a) Ladder diagram   b) C++
   c) OOP+   d) VHDL

Q.3 What is the full form of 'SCADA"?
   a) Supervisory Control and Data Acquisition
   b) System Control and Data Acquisition
   c) Supervisory control and Data Acquired
   d) Supervisory Contact and Data Acquisition

Q.4 Who is the father of PLC?
   a) Bill Gates   b) Dick Morley
   c) Bill Landis   d) Tod Cunningham

Q.5 Which programming language is used in PLC?
a) Only LD   b) FBD
c) Onlt ST and SFC   d) All of these

Q.6 What does DCSstands for?
a) Direct Control System
b) Distributed Contact System
c) Distributed Contact System
d) Distributed Control Source

Q.7 Function Block diagram is a type of _____?
a) PLC Language
b) Block diagram of a module
c) Block Diagram of a PLC model
d) None of these

Q.8 The first compay to build PLCs was.
a) General Motors (GE)
b) Allen Bradley
c) Square D
d) Modicon

Q.9 SCADA is a system of_____ elements.
a) only hardware
b) hardware and software
c) only software
d) none

Q.10 What type of power supply is typically used for a PLC?
a) AC   b) DC
c) AC and DC   d) Solar

SECTION-B

Note: Objective type questions. All questions are compulsory.   (10x1=10)

Q.11 What is HMI in PLC

Q.12 Expand SFC.

Q.13 The symbol of XIC?

Q.14 What is the MCR?

Q.15 How many levels are present in a complex SCADA system?

Q.16 What are the different PLC brands?

Q.17 What are the different types of PLC timers?

Q.18 What is "Tag' in the SCADA system?

Q.19 What is Foundation Fieldbus (FF)?

Q.20 What is the counter?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions.   (12x5=60)

Q.21 What are the advantages of using a PLC in industrial automation?

Q.22 What are the different components of PLC?

Q.23 Write advantages of PLC over relays.

Q.24 What is the difference between a PLC and a DCS?

Q.25 What is the function of a PLC's watchdog timer?