Q.26 Explain memory structure of PLC.

Q.27 Write a short note on HMI.

Q.28 Explain any one programming terminal used for PLC.

Q.29 Tell five differences between DCS and SCADA.

Q.30 Explain any two comparison instructions with the help of ladder diagram.

Q.31 Write the purpose of real time clock instruction.

Q.32 Write five applications of SCADA.

Q.33 Draw and briefly explain block diagram of DCS.

Q.34 Write differences between Timer ON and OFF instruction.

Q.35 Write five advantages of DCS.

Section-D

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

Q.36 Explain SCADA system in detail. Also write five advantages of SCADA.

Q.37 Draw and explain the block diagram of PLC.

Q.38 Define counter. Explain different counter instructions of PLC.

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Roll No.....

6th Sem / Instrumentation & Control Engg.
Subject : PLC DCS and SCADA

Time : 3 Hrs. **M.M. : 100**

SECTION-A

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

Q.1 Full form of DCS is

a) Data Control System

b) Distributed Control System

c) Dedicated Control System

d) Display Control System

Q.2 Programming Languages of PLC are

a) Ladder Logic

b) Statement List

c) Functional Block Diagram

c) All are Correct

Q.3 ADD is an _____ instruction

a) Input b) Output

c) Special d) None of these

Q.4 Which one is not a module of PLC

a) Input Module b) Output Module

c) CPU d) RTU

Q.5 Solenoids, lamps, motors are connected to

a) C.P.U. b) Memory

c) Digital Output b) Analog Input

Q.6 Counters are connected to which part of PLC

a) Input Module b) Output module

c) Memory d) None of these

Q.7 In timers, when Accumulator value reaches Preset value

a) Done bit is High b) Enable bit is high

c) Timer bit is high d) All are correct

Q.8 Timer is an _____ instruction

a) Input b) Output

c) Special d) None of these

Q.9 The type of memory which is fast and temporarily stores the data

a) RAM b) ROM

c) Hard disk d) None of these

Q.10 Plc's were originally introduced to replace

a) DCS b) SCADA

c) Hardwired Control d) Digital Control

Section B

Note: Objective types Questions. All Questions are compulsory. (10x1=10)

Q.11 Write full form of RTU.

Q.12 Write two advantages of PLC.

Q.13 Write full form of EEPROM.

Q.14 Draw scan cycle diagram.

Q.15 Write full form of DDC

Q.16 Draw symbol of Timer ON instruction.

Q.17 Draw ladder diagram of OR gate.

Q.18 Name two PLC manufacturers.

Q.19 Draw symbol of any two comparison instructions.

Q.20 Tell two advantage of DCS.

Section-C

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

Q.21 Write five advantages of PLC over electromagnetic relays.

Q.22 Explain any one programming language of PLC.

Q.23 Explain the basic operation of PLC.

Q.24 Describe the concept of DDC.

Q.25 Explain any two Arithmetic instruction using ladder diagram.