

Q.22 Explain the function of Exclusive OR (XOR) instruction with Example.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 With the help of block diagram Explain Architecture of PLC.

Q.24 What are the uses of Sliders & Arrows in SCADA System? Explain how these are Implemented in SCADA system.

Q.25 What do you Mean by Counters? Explain Different type of Counters & give their Applications.

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**5th Sem / ECE, Automation & Robotics, ECE,
(For Speech and Hearing Impaired)**

Subject : PLC & SCADA

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Which of the following is the central processing unit of PLC?

- a) I/O Module b) Processor
- c) Memory Unit d) Power supply

Q.2 The acronym PLC stands for:

- a) Pressure Load Control
- b) Programmable Logic Controller
- c) Pneumatic Logic Capstan
- d) Pressure Loss Chamber

Q.3 The most popular language for PLCs is

- a) Ladder diagram b) C++
- c) OOP+ d) VHDL

- Q.4 An OR function implemented in ladder logic uses
- normally-closed contacts in series
 - normally-open contacts in series
 - normally-open contacts in parallel
 - normally-closed contacts in parallel
- Q.5 Timers may have one or more _____ for their reference timing.
- Time base
 - Analog outputs
 - Analog inputs
 - Unlatch inputs
- Q.6 What are the typical features of SCADA alarm systems?
- Translation, rotation, scaling, reflection
 - compression, decompression, streaming, buffering.
 - Scheduling, routing, encryption, decryption
 - Prioritization, escalation, acknowledgement, logging

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Write the full form of SCADA

(2) 221052/212852

- Q.8 RAM Stands for _____
- Q.9 A Byte Consist of _____ Nibbles.
- Q.10 Status data file Stores Parameters of Real Time Clock (T/F)
- Q.11 _____ Instructions Copies from one list to another
- Q.12 Define Tag.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain the Logic Expression, Symbol & Truth Table of NAND & NOR Gates.
- Q.14 Write down the limitations of relays.
- Q.15 Describe Control Data File of P.L.C.
- Q.16 Explain different Functions used in Relay Ladder Logic.
- Q.17 Explain P.L.C scanning.
- Q.18 Explain any four application of PLC.
- Q.19 Explain Input Data File Structure.
- Q.20 Write any four data Transfer Instruction.
- Q.21 Write any four selection criteria for PLC.

(3) 221052/212852