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Roll No.

5th Sem / Sub: Programmable Logic Controllers & Micro Controllers.
Branch. :Electrical

Time : 3Hrs.

M.M. : 100

SECTION-A

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

Q.1 Which of the following is PLC programming language. (COE-1)

- a) Ladder Diagram
- b) Structure text
- c) Instruction List
- d) All of these

Q.2 System memory is used by PLC for (COE-2)

- a) Process control
- b) Relay control
- c) Sloenoid control
- d) None of these

Q.3 XIC Instruction is (COE-3)

- a) Input bit instruction
- b) Output timer instruction
- c) Input counter instruction
- d) None of these

Q.4 Which of following are boolean instructions (COE-3)

- a) And, OR
- b) TON, TOFF
- c) XIC
- d) SQR

Q.5 8051 Microcontroller is
a) 40 PIN DIP b) 35 PIN DIP

- c) 60 PIN DIP
- d) None of these

Q.6 Total addressing modes used in 801 mico controller are (COE-7)

- a) 8
- b) 5
- c) 4
- d) 7

Q.7 Program made of 0 and 1 is called (COE-9)

- a) ALP
- b) EQU
- c) Machine language
- d) None of these

Q.8 LCD display is used for (COE-10)

- a) Output interface
- b) Input Interface
- c) Both A & B
- d) None of these

Q.9 Sinking is common (COE-2)

- a) Ground Line
- b) Source Line
- c) Pulse
- d) Output

Q.10 Basic Instructions used in ladder program are (COE-3)

- a) BIT
- b) TIMER
- c) Counter
- d) All of these

SECTION-B

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

Q.11 Ladder logic is being developed to mimic _____ logic. (COE-1)

Q.12 Sourcing is common _____ line. (COE-2)

Q.13 _____ instruction will allow a line to be true for only one scan. (COE-3)

Q.14 Ladder diagram is used for _____. (COE-4)

(1)

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(2)

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- Q.15 PLC stands for _____. (COE-5)
Q.16 Scada focus on ____ level. (COE-6)
Q.17 Register SBUF stands for _____. (COE-7)
Q.18 CISC stands for _____. (COE-7)
Q.19 8051 Microcontroller has _____ bytes of ROM. (COE-5)
Q.20 ALP stands for _____. (COE-9)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Compare electromagnetic relay and PLC. (COE-1)
Q.22 Explain PLC scanning process. (COE-2)
Q.23 Explain real time clock (RTC) function. (COE-3)
Q.24 Draw ladder diagram to start/stop a motor using single push switch green lamp glow when motor is on and red lamp glow when motor is off. (COE-4)
Q.25 Explain packing process control application of PLC. (COE-5)
Q.26 Compare CISC and RISC technology. (COE-7)
Q.27 Explain register indirect addressing mode. (COE-8)
Q.28 Explain in brief define byte (DB) assembler directive. (COE-9)
Q.29 Explain PLC power supply requirement. (COE-2)
Q.30 Enlist basic bit instructions used in ladder programme. (COE-3)
Q.31 Explain special function register used in microcontroller 8051. (COE-7)

- Q.32 Differentiate MOV andMOVX instruction used for data transfer in 8051 microcontroller.
Q.33 Discuss role of scada in industry. (COE-1)
Q.34 Explain any two SFR of 8051 microcontroller. (COE-8)
Q.35 Write short note PLC memory. (COE-7)

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 With the help of block diagram, explain function of different blocks of PLC. (COE-1)
Q.37 What do you mean by counters? Explain different types of counters? (COE-3)
Q.38 Draw pin diagram of 8051 microcontroller. Explalin function of each Pin? (COE-7)