Q.27 What do you mean by retentive and non-retentive timer?
Q.28 List any 5 applications of PLC is automation.
Q.29 What is master control self-holding relays?
Q.30 Write a short note on arithmetic instructions.
Q.31 Explain the operation of Doorbell using PLC.
Q.32 Differentiate between PLC and Personal computer.
Q.33 Discuss about packaging and process control.
Q.34 Differentiate between PLC and computer control.
Q.35 Write a short note on sequences.

SECTION-D

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

Q.36 Explain basic building block of PLC in detail.
Q.37 Write a short note on :
a) Memory structure of PLC
b) Programming languages in PLC
Q.38 Explain working of CNC machine and Washing machine using PLC.

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6th Sem / Branch : Power Eltx.
Sub. : Programable Logic Controllers & Applications

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 In PLC the user can write the programs with the help of _____.
a) Optical isolation
b) Sensing devices
c) Programming devices
d) None of the above
Q.2 Ladder logic programming consists primarily of:
a) Virtual relay contacts and coils
b) Logic gate symbols with connecting lines
c) Function block with connecting lines
d) Text based code
Q.3 An AND 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 contacts in parallel

Q.4 The control logic in a a programmable logic controller can be programmed by _____

a) FBD ladder logic
b) Sequential logic
c) Structured text
d) All of the above

Q.5 _____ is an example for input module in the programmable logic controller

a) Switches b) Alarms
c) Lamps d) None

Q.6 What are the components that make the programmable logic controller work?

a) Input and output module
b) CPU
c) Power supply
d) All of the above

Q.7 Which one is the PLC programming language?

a) HMI b) MMI
c) FBD d) None of the above

Q.8 The _____ moves towards the relay electromagnet when the relay in ON

a) Armature b) Coil
c) NO contact d) NC contact
e) all of above

Q.9 Which is the output device in PLC.

a) Pump b) Switch
c) Push button d) Sensor

Q.10 PLC operates on the following signals

a) Digital b) Analog
c) Impulse d) None

SECTION-B

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

Q.11 Relay is a _____device.
Q.12 Expand EPROM.
Q.13 OTE stands for_____.
Q.14 What is counter?
Q.15 List any one PLC manufacture.
Q.16 FBD stands for _____.
Q.17 List one application of PLC.
Q.18 Draw logical symbol of XIO.
Q.19 What is GRT instruction?
Q.20 Write function of SUB instruction.

SECTION-C

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

Q.21 Discuss any 5 advantages of PLC over relay.
Q.22 Name any 5 manufactures of PLC?
Q.23 Explain basic operation and principle of PLC
Q.24 Explain I/O structure of PLC in detail.
Q.25 Name any 5 comparison instructions used in PLC.
Q.26 What is ladder diagram? Explain with any one example.