5th Sem / Elect
Subject:- Programmable Logic Controllers and Micro Controllers

Time : 3Hrs.   M.M. : 100

SECTION-A

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

Q.1 In PLC, letter P stands for

a) Peripheral   b) Programmable

c) Periodic   d) None of above

Q.2 Relay system has

a) Slow Response   b) Complex circuit

c) Large size   d) All of above

Q.3 Which is not a component of PLC

a) Input module   b) Output module

c) CPU   d) Field devices

Q.4 Addition operation is similar in PLC to

a) OR   b) AND

c) NOT   d) XOR

Q.5 There are_____ number of counters in PLC

a) 2   b) 3

c) 4   d) 5

Q.6 Parallel lines in ladder diagram are called

a) Rung   b) Rail

c) Rack   d) Chairs

Q.7 How many Input/Output parts are there in 8051

a) 5   b) 2

c) 10   d) 4

Q.8 _____ signal is used to demultiplex address and Data.

a) ALE   b) Ready

c) Reset   d) None

Q.9 Sinking is a common

a) Ground line   b) Source line

c) Pulse   d) Output

Q.10 In PLC, which is programmable language

a) ladder diagram   b) Structural text

c) Instruction list   d) All of above

SECTION-B

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

Q.11 Expand ALE.

Q.12 Define markable interrupt.

Q.13 RAM stands for_____

Q.14 Expand RTC

Q.15 PLC stands for_____

Q.16 Ladder diagram is used for_____

Q.17 Name any two manufacturers of PLC

Q.18 LED stands for_____

Q.19 Total addresses modes in 8051 are_____

Q.20 SCADA focous on_____level

SECTION-C

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

Q.21 Draw the building block of PLC.

Q.22 Discuss various programmable language PLC

Q.23 Discuss the Power supply section of PLC

Q.24 Explain timer operation in PLC in brief.

Q.25 Write a short note on RTC

Q.26 Write any 5 logical instructions.

Q.27 Write a note on ladder programming in brief

Q.28 Discuss Filling of bottles operation of PLC

Q.29 Explain SCADA in brief.

Q.30 Discuss the memory organization of 8051

Q.31 Draw the pin diagram of 8051.

Q.32 Discuss the LCD interface of microcontroller

Q.33 Write 5 applications of microcontrollers.

Q.34 What are Data transfer operations in ALP?

Q.35 Explain Serial port operation of microcontroller.

SECTION-D

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

Q.36 Explain the Architecture details of PLC with each part.

Q.37 Discuss various SFRs used in microcontroller.

Q.38 Explain the key board interface of microcontroller.