4th Sem / Branch : Electrical Engineering

Subject : PLC & Micro Controllers

Time : 3 Hrs.   M.M. : 60

SECTION-A

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

Q.1   In PLC letter P stand for

a)   Peripheral   b)   Programmable

c)   Proportional   d)   Periodic

Q.2   8051 has _____ no. of pins

a)   40   b)   30

c)   28   d)   16

Q.3   Which is not component of PLC

a)   Input Module   b)   Output Module

c)   CPU   d)   Field Device

Q.4   Parallel line in Ladder diagram are called

a)   Rails   b)   steps

c)   Racks   d)   None

Q.5   8051 has RAM of

a)   128 bytes   b)   256 bytes

c)   64 bytes   d)   None

Q.6   8051 has how many 16 bit registers

a)   2   b)   3

c)   1   d)   0

SECTION-B

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

Q.7   Define rung .

Q.8   Define retentive timer

Q.9   Define baud rate.

Q.10   Write full form of SCON

Q.11   Write one arithmetic instruction of PLC

Q.12   Write full form of SFR.

SECTION-C

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

Q.13 Write four advantages of PLC over relays .

Q.14 Differentiate between micro controller and microprocessor.

Q.15 Write four logical instruction of PLC.

Q.16 Draw pin diagram of 8051 micro controller and explain control pins.

Q.17 Write four limitations of relays.

Q.18 What is ladder programming?

Q.19 Explain two addressing modes of 8051.

Q.20 What are various interrupts of 8051 micro controller?

Q.21 Explain serial port operation.

Q.22 Write the names of PLC programming languages . Explain any one.

SECTION-D

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

Q.23 Explain working of 8051 micro controller with the help of block diagram.

Q.24 Explain any one application of PLC.

Q.25 Write short note (Any Two)

    a) Interfacing of keypad

    b) Memory organization in PLC

    c) Power supply