**5th Sem / Eltx, Power Eltx**
**Subject:- Microcontroller / Microcontrollers &**
**Applications**

Time : 3Hrs.                                    M.M. : 100

**SECTION-A**

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

Q.1   A_____ is a small and low-cost microcomputer,
which is designed to perform the specific tasks.
(CO1)
a)   Microcontroller      b)   Microprocessor
c)   FET                  d)   MOSFET

Q.2   In 8051 Microcontroller, crystal oscillator has
frequency of_____                          (CO1)
a)   20 MHz              b)   11.059 MHz
c)   18.235 MHz         d)   5.52 MHz

Q.3   Data Memory of 8051 Microcontroller is of
capacity_____                               (CO1)
a)   150 bytes          b)   4 KB
c)   200 Bytes          d)   256 bytes

Q.4   CISC stands For                          (CO2)
a)   Complex Instruction Set Computer
b)   Comprehensive Instruction specific Computer
c)   Common Instruction Standing Computer
d)   Contract Instruction Set Computer

Q.5   The group of memory location set aside to hold the
addresses of ISRs is called_____         (CO2)
a)   Service Routine Table
b)   Interrupt Service Table
c)   Interrupt Vector Table
d)   Routine Data Table

Q.6   _____ in 8051 microcontroller will allow the
controller to send and receive data's just by using
two pins.                                     (CO2)
a)   SPI                b)   USART
c)   UART               d)   12C

Q.7   _____ register is responsible for enabling
(Unmasking) and disabling (masking) the interrupts
(CO2)
a)   PCON               b)   SCON
c)   IE                 d)   IP

Q.8   _____ contains the address of the external
memory to be accessed.                        (CO1)
a)   SCON Register      b)   Data Pointer Register
c)   Register B         d)   PCON Register

Q.9   DACs are required to convert_____       (CO3)
a)   Analog signal to digital one
b)   Digital signal to analog One
c)   Active signal to digital one
d)   Passive signal to active signal

Q.10  Set of instruction is known as_____.      (CO2)
a)   Program            b)   Instruction Set
c)   Addressing Mode    d)   None

## SECTION-B

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

Q.11 PIC stands for_____ (CO4)

Q.12 USART stands for_____ (CO2)

Q.13 Microcontroller 8051 consists of_____ bit address bus and_____ bit data bus. (CO1)

Q.14 The storing operation of a CPU register in the stack is known as a_____, and getting the contents from the stack back into a CPU register is called a_____ (CO2)

Q.15 Expand LCD (CO3)

Q.16 ADD, ADDC, SUBB, MUL, DIV comes under _____ (CO2)

Q.17 In which addressing mode, the effective address of the operand is the sum of a base register and an offset register. (CO2)

Q.18 Language which is in the form of 0 and 1 and only machine can understand is_____ (CO2)

Q.19 Define Baud Rate. (CO2)

Q.20 _____ Register is used to set the priority of the interrupt as High or Low. (CO2)

## SECTION-C

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

Q.21 Explain in the difference between Microprocessor and Microcontroller. (CO1)

Q.22 Explain the working of DAC. (CO3)

Q.23 Explain the organization of Data Memory of 8051 Microcontroller. (CO1)

Q.24 Draw the diagram of port P2 and explain its working. (CO1)

Q.25 Define instruction. Explain Logical Instruction of 8051 Microcontroller. (CO2)

Q.26 Explain Basic features of PIC Microcontroller. (CO4)

Q.27 Write a short note on Assembler Operation. (CO2)

Q.28 What do you understand by Assembler directive. Explain 3 directives with examples. (CO2)

Q.29 How External Memory is interfaced with 8051 Microcontroller. (CO1)

Q.30 Define SFR. Explain function of any 5 SFR along with its address location. (CO1)

Q.31 Draw the architecture Diagram of 8051 Microcontroller. (CO3)

Q.32 How many timers are there in 8051 Microcontroller. Explain one operation of Timer.

Q.33 What are the SFRs associated with serial operation. Explain its working. (CO2)

Q.34 What is Stack Explain POP and PUSH instruction. (CO2)

Q.35 Explain difference between CISC and RISC processor. (CO2)

## SECTION-D

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

Q.36 Draw the PIN Diagram of 8051 Microcontroller and explain function of each PIN. (CO1)

Q.37 Explain various addressing modes of 8051 Microcontroller. (CO2)

Q.38 What is Interfacing. Explain the interfacing of LCD with 8051 Microcontroller with its schematic diagram. (CO3)