

- Q.29 Explain Memory mapped I/O scheme.
  - Q.30 Explain Synchronous data transfer scheme.
  - Q.31 What are basic concepts in memory interfacing.
  - Q.32 Explain DMA scheme of data transfer.
  - Q.33 What are the various operating modes of 8253?
  - Q.34 Differentiate 8237 and 8257 DMA controller.
  - Q.35 Specify the function of various flags provided in the 8085 microprocessor.

## **SECTION-D**

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

- Q.36 Draw the block diagram of 8085 microprocessor. Explain the function of each block.

Q.37 Write a assembly language program to multiply two 8 bit numbers using shift and add method. Store result at memory location 2100 H.

Q.38 Draw the block diagram of 8255 programmable peripheral interface and explain the function of each block.

No. of Printed Pages : 4  
Roll No. ....

126554/106554

## **5th Sem / Branch : Elect. & Eltx Engg. Sub. : Microprocessors**

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

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

- Q.1 ALU is called the \_\_\_\_\_ of the computer.

  - a) Heart
  - b) Master dispatcher
  - c) Primary memory
  - d) All of the above

Q.2 CPU stands for

  - a) Central Processing Unit
  - b) Control Processing Unit
  - c) Circuit Processing Unit
  - d) None of these

Q.3 Which interrupt in 8085 non-makeable?

  - a) RST 5.5
  - b) RST 7.5
  - c) TRAP
  - d) Both A and B

Q.4 An interrupt in which the external device Supplies its address as Well as the interrupt request is \_\_\_\_\_ Interrupt.

  - a) Vectored
  - b) Maskable
  - c) Non maskable
  - d) Designated

- Q.5 8255 is a  
 a) PIT                      b) PPI  
 c) USART                  d) None of the above
- Q.6 8085 Microprocessor is having address lines  
 a) 8                        b) 16  
 c) 32                      d) None of the above
- Q.7 The capacity of ALU in microprocessor is of  
 a) 8 bit                   b) 6 bit  
 c) 4 bit                   d) 16 bit
- Q.8 Which of the following is a interrupt microprocessor 8085  
 a) CLK                     b) SOD  
 c) READY                  d) TRAP
- Q.9 Stack pointer is  
 a) 8 bit register        b) 16 bit register  
 c) 4 bit register        d) None of the above
- Q.10 Microprocessor 8085 is a  
 a) 40 Pin IC             b) 16 Pin IC  
 c) 4 Pin IC              d) 8 Pin IC

### **SECTION-B**

**Note:** Objective type questions. All questions are compulsory.  $(10 \times 1 = 10)$

- Q.11 Write full form of VLSI.
- Q.12 Microprocessor 8085 is a \_\_\_\_\_ bit microprocessor.

- Q.13 1 byte is equal to \_\_\_\_\_ bits.
- Q.14 Define interrupt.
- Q.15 Name the hardware interrupt of 8085.
- Q.16 Full form of SIM instruction.
- Q.17 The control word register of 8255 is of \_\_\_\_\_ bit.
- Q.18 What is a flag.
- Q.19 Define opcode.
- Q.20 How many flag in 8085 microprocessor.

### **SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.  $(12 \times 5 = 60)$

- Q.21 Describe some important applications of microprocessors.
- Q.22 What are the various registers of 8085? Discuss their functions.
- Q.23 Discuss fetch operation and execute operation.
- Q.24 Why are program counter and stack pointer 16 bit registers?
- Q.25 Draw and explain the timing diagram for memory read operation.
- Q.26 Distinguish between RAL and RLC instruction.
- Q.27 Distinguish between the following instruction MOV, A, M and LDAX D. CMP B and SUB B.
- Q.28 What is the function of stack pointer? Explain PUSH and POP operation.