

- Q.29 Differentiate the function of Assembler, Compiler and Interpreter.
- Q.30 List all the addressing modes of 8051 microcontroller
- Q.31 Write a short note on DMA data transfer scheme.
- Q.32 Compare memory mapped I/O and I/O mapped I/O schemes.
- Q.33 What are the advantages of microcontroller over microprocessor?
- Q.34 Discuss the data transfer group instructions with example.
- Q.35 Explain logical instruction set of 8051 microcontrollers.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Define microprocessor. Draw neat block diagram of internal architecture of 8085 microprocessor and explain its blocks.
- Q.37 Draw and explain the pin configuration of 8051 Microcontroller. Explain the function of each pin.
- Q.38 Write short note on any two of the following:
- Compare the CALL and JMP instructions
 - DMA controller (8257)
 - Modes of the timer of 8051

No. of Printed Pages : 4
Roll No.

122452

MSME (Mechatronics) Subject:- Embedded System

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 The data bus of 8085 is _____ bit.
- 8
 - 16
 - 32
 - 64
- Q.2 The mnemonics used in writing a program is called _____
- Assembly language
 - machine language
 - high level language
 - object program
- Q.3 What is the bit size of 8051 microcontroller?
- 4 bit
 - 8 bit
 - 16 bit
 - 32 bit
- Q.4 Instruction LXI H, 2500 H belongs to which group?
- Branch control
 - Arithmetic group
 - Data transfer
 - Machine control
- Q.5 The instruction HLT belongs to which group:
- Data transfer
 - Arithmetic group

- c) Branch control d) Machine control
- Q.6 The full form of DMA is _____
- a) direct memory access
b) direct memory address
c) direct memory allocation
d) none of the above
- Q.7 What is the number of I/O ports in the 8051 microcontrollers?
- a) 2 ports b) 3 ports
c) 4 ports d) 6 ports
- Q.8 Which addressing mode is used in instruction MOV M,A?
- a) Direct b) Indirect
c) Register d) Implicit
- Q.9 What is the function of the TMOD register?
- a) to set various operation modes of timer/counter
b) to load the count of the timer
c) Is used to interrupt the timer
d) none of the above
- Q.10 Which of the following interrupts has the highest priority?
- a) RST 5.5 b) INTR
c) RST 7.5 d) TRAP

SECTION-B

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

- Q.11 Define the term address bus.

- Q.12 Name various flags of 8085 flag register.
- Q.13 What is the full form of PROM?
- Q.14 Name the interrupt which has lowest priority in 8051.
- Q.15 What is the use of program counter?
- Q.16 Define the term instruction cycle.
- Q.17 What is stack pointer?
- Q.18 Which interrupt has lowest priority?
- Q.19 What is microcontroller?
- Q.20 Define A/D.

SECTION-C

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

- Q.21 Write down the different applications of micro-processor.
- Q.22 What are the various register of 8085? Discuss their functions in detail.
- Q.23 Discuss the various addressing mode of 8085 with the help of an example.
- Q.24 Discuss the function of Assembler, Compiler and Interpreter.
- Q.25 Explain block diagram of 8279 in detail.
- Q.26 What is PSW? How many flags are present in 8051?
- Q.27 Discuss the interfacing of 8279 with 8085.
- Q.28 Explain the sequence of execution of a program by microprocessor.