

- Q.28 Discuss the arithmetic group instructions with example. (CO3)
- Q.29 Discuss the data transfer group instructions with example. (CO3)
- Q.30 Write down the different applications of microprocessor. (CO6)
- Q.31 Explain the Immediate addressing mode of 8085 with the help of an example. (CO2)
- Q.32 Define interrupt. What is the need of interrupts? Discuss different types of interrupts (CO2)
- Q.33 Write a short note on DMA data transfer scheme. (CO6)
- Q.34 Describe instruction, machine and fetch cycle in 8085 microprocessors. (CO3)
- Q.35 Explain PUSH and POP instruction of 8085 microprocessor. (CO3)

SECTION-D

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

- Q.36 Explain the interfacing of keyboard with microcontroller 8051. (CO6)
- Q.37 Draw and explain the architecture of 8085 and explain its various functional blocks. (CO2)
- Q.38 Write a short note of any two of the following: (CO2,7,4))
- a) Distinguish between data bus and address bus of 8085
 - b) DMA controller (8257)
 - c) Modes of the timer of 8051

No. of Printed Pages : 4
Roll No.

202443

4th Sem / Mechatronics Subject:- Embedded Systems

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 A stack is used for: (CO2)
- a) Storing of data memory
 - b) Location of instructions in the memory
 - c) Binary code for the operation to be performed
 - d) Address of next instruction to be executed
- Q.2 Which of the following interrupt has the highest priority? (CO3)
- a) RST5.5
 - b) TRAP
 - c) RST7.5
 - d) INTR
- Q.3 The full form of DMA is _____ (CO6)
- a) Direct memory access
 - b) Direct Memory address
 - c) Direct memory allocation
 - d) None of the above
- Q.4 The address bus of 8085 is _____ bit. (CO2)
- a) 8
 - b) 16
 - c) 32
 - d) 64

(00)

(4)

202443

(1)

202443

- Q.5 A program that is used to test and debug another program is called _____ (CO4)
- Debugger
 - Analog to Digital convertor
 - Machine code
 - None of the above
- Q.6 Timer 0 is a _____ bit register (CO4)
- 32
 - 8
 - 16
 - 24
- Q.7 Addressing in which the location of data is contained within the mnemonics is known as _____ (CO2)
- Immediate addressing
 - Implicit addressing
 - Register addressing
 - Direct addressing
- Q.8 Instruction LXI H, 2500 H belongs to which group? (CO3)
- Branch control
 - Arithmetic Group
 - Data transfer
 - Machine Control
- Q.9 The stack pointer in 8085 is a _____ (CO2)
- 16 bit register which points to stack memory locations
 - 16 bit accumulator
 - Memory location in a stack
 - Flag register used in stack
- Q.10 Which addressing mode is used in instruction MOV M,A? (CO2)
- Direct
 - Indirect
 - Register
 - Implicit

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Which interrupt has lowest priority? (CO4)
- Q.12 What is Micro-Processor? (CO2)
- Q.13 What is the full form of SIM? (CO2)
- Q.14 What is the role of Program counter in microcontroller? (CO4)
- Q.15 Explain the use if instruction XCHA, Rx. (CO3)
- Q.16 What is the use of compiler? (CO1)
- Q.17 What is the function of ALE in 8051 (CO2)
- Q.18 Define D/A. (CO6)
- Q.19 What is the full form of EEPROM? (CO1)
- Q.20 Give the names of any two blocks of microprocessor. (CO2)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Give examples of logical instructions of 8051 microcontroller? (CO3)
- Q.22 Explain the different instruction format of 8085 with example. (CO3)
- Q.23 Write a short note on machine and fetch cycle of microprocessor? (CO3)
- Q.24 Write down applications of microcontroller in communication system. (CO2)
- Q.25 What is PSW? How many flags are present in 8051? (CO2)
- Q.26 Discuss the interfacing of 8279 with 8085. (CO6)
- Q.27 List all the addressing modes of 8051 microcontroller (CO2)