

- Q.28 Explain the arithmetic group instructions with example. (CO3)
- Q.29 Write a note on machine language. (CO2)
- Q.30 Differentiate machine and fetch cycle of micro-processor? (CO3)
- Q.31 What is the structure of Embedded C program? (CO5)
- Q.32 What is I/O mapped I/O. (CO4)
- Q.33 Write a note on generation of read / write control signals in 8085. (CO2)
- Q.34 Illustrate the interfacing of seven segment with 8085. (CO6)
- Q.35 Describe the bus organization of 8085. (CO1)

SECTION-D

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

- Q.36 Explain the internal architecture of 8085 microprocessor with the help of neat and clean block diagram. (CO2)
- Q.37 Classify the different interrupts used in 8085 Microprocessor. (CO3)
- Q.38 Explain the interfacing of Stepper Motor with 8051. (CO6)

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4th Sem. / Mechatronics Sub. : Embedded System

Time : 3 Hrs.

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SECTION-A

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

- Q.1 Which of the following is a special-purpose register of microprocessor? (CO1)
a) Program counter b) Instruction register
c) Accumulator d) Temporary register
- Q.2 What is the frequency of the clock that is being used as the clock source for the timer? (CO1)
a) Some externally applied frequency f
b) Controller's crystal frequency f
c) Controller's crystal frequency /12
d) Externally applied frequency/1
- Q.3 Which register is used to make the interrupt level or an edge triggered pulse? (CO4)
a) TCON b) IE
c) IPR d) SCON
- Q.4 Which of the following is the correct sequence of operations in a microprocessor? (CO2)
a) Opcode fetch, memory read, memory write, I/O read, I/O write
b) Opcode fetch, memory write, memory read, I/O read, I/O write
c) I/O read, opcode fetch, memory read, memory write, I/O write
d) I/O read, opcode fetch, memory write, memory read, I/O write

- Q.5 The address bus of 8085 is _____ bit. (CO2)
 a) 8 b) 16
 c) 32 d) 64
- Q.6 How an embedded system communicates with the outside world? (CO5)
 a) Memory b) Output
 c) Peripherals d) Input
- Q.7 The stack pointer in 8085 is a _____. (CO2)
 a) 16 bits register which points to stack memory locations
 b) 16 bits accumulator
 c) Memory location in a stack
 d) Flag register used in stack
- Q.8 Which of the following flag is used to mask INTR interrupt? (CO4)
 a) Zero flag b) Auxiliary carry flag
 c) Interrupt flag d) Sign flag
- Q.9 Which pin provides a reset option (RST) in 8051? (CO1)
 a) Pin 1 b) Pin 8
 c) Pin 12 d) Pin 9
- Q.10 For writing commands on an LCD, RS bit is (CO6)
 a) Set b) Reset
 c) Set & Reset d) Non of the mentioned

SECTION-B

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

- Q.11 List various flags of 8085 flag register. (CO2)

- Q.12 Write the full form of ALE. (CO2)
- Q.13 Define instruction cycle. (CO3)
- Q.14 What is compiler? (CO1)
- Q.15 What is Micro-Processor? (CO2)
- Q.16 Write the full form of RIM. (CO2)
- Q.17 What is difference between microprocessor and micro controller? (CO4)
- Q.18 What is the term “Keywords”? (CO3)
- Q.19 What is “Non Maskable interrupt”? (CO1)
- Q.20 What is program counter? (CO2)

SECTION-C

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

- Q.21 What is the use of PUSH and POP instruction in 8085 microprocessor? (CO3)
- Q.22 Explain the special function registers of 8085? Discuss their functions in detail. (CO2)
- Q.23 Give different instruction format of 8085 with examples. (CO3)
- Q.24 Explain the addressing modes of 8051 micro-controller. (CO2)
- Q.25 What is the sequence of execution of a program by microprocessor? (CO5)
- Q.26 Define PSW? Explain different flags present in 8051? (CO2)
- Q.27 Discuss the impact of microprocessor on modern society. (CO2)