

- Q.34 Define PSW. List the number of Flags in 8051 microcontroller and name them.
- Q.35 Give at least five applications of microcontroller.

SECTION-D

Note: Long Answer type question. Attempt any two questions.
(2x10=20)

- Q.36 What is addressing modes? Explain the addressing mode of 8085 with example each.
- Q.37 Draw block diagram of IC 8259. Also explain the functions of each block.
- Q.38 Write a short note on any two of the following:
- a) Instruction cycle
 - b) PUSH instruction
 - c) I/O mapped I/O scheme
 - b)

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4th Sem, **Branch :** Eltx. Engg.

Subject : Microproc., Microcontroller & their Appl./Microproc. & App.

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 The memory which can be accessed by the address bus of 8085 microprocessor is _____
- a) 112K
 - b) 4 K
 - c) 16 K
 - d) 64 K
- Q.2 The clock frequency of 8085 is _____
- a) 3.14 MHz
 - b) 6.28 MHz
 - c) 8 MHz
 - d) None of the above
- Q.3 A stack is used for _____
- A) Storing of data in memory
 - b) Location of instruction in the memory
 - c) Address of next instruction to be executed
 - d) None of the above
- Q.4 Which addressing mode is used in instruction LDA 2500 H?
- a) Indirect
 - b) Direct
 - c) Register
 - d) Implicit
- Q.5 The internal RAM memory of the 8051 is:
- a) 32 bytes
 - b) 64 bytes
 - c) 128 bytes
 - d) 256 bytes

- Q.6 Which of the following interrupts has the lowest priority
 a) RST 5.5 b) TRAP
 c) RST 7.5 d) INTR
- 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 What is the function of the SCON register?
 a) To control SBUF and SMOD registers
 b) To control SMOD registers
 c) To program the start bit, stop bit, and data bits of framing
 d) None of the above
- Q.9 Which of the following is not a type of microcontroller interrupt?
 a) INTR b) INTO
 c) INT1 d) TFO
- Q.10 The 8255 is a _____ chip
 a) Input/Output b) Analog to Digital
 c) Digital to analog d) None of the above

SECTION-B

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

- Q.11 What is control bus?
 Q.12 Define the term instruction cycle.
 Q.13 What is parity flag?
 Q.14 Expand MIPS.
 Q.15 What is stack pointer?

- Q.16 Which interrupt has lowest priority?
 Q.17 What is the function of ALE in 8085?
 Q.18 Expand EPROM.
 Q.19 What is the function of SCON instruction?
 Q.20 What is the full form of SIM?

SECTION-C

- Note :** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 How does a microcontroller differ from a microprocessor?
 Q.22 Write short note on evolution of microprocessor?
 Q.23 Explain the content of flag registers of 8085 after addition of two 8bit binary number 11001011 and 11101100.
 Q.24 What are the uses of Timer? Explain TCON in detail.
 Q.25 Define interrupt. Differentiate between Maskable and non-maskable in interrupt.
 Q.26 Explain the different instruction format of 8085 with example.
 Q.27 Explain any two data transfer group instructions with example.
 Q.28 Draw block diagram of 8255 and explain different blocks of 8255.
 Q.29 What are different types of buses used in microprocessor?
 Q.30 Draw pin configuration of IC 8257?
 Q.31 Write a short note on “counters of 8051 microcontroller.”
 Q.32 Write a short note on Synchronous and Asynchronous data transfer techniques.
 Q.33 Give four examples of conditional instructions of 8051 microcontroller?