

- Q.33 Give examples of conditional instructions of 8051 microcontroller?
- Q.34 DefinePSW. 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. $(2 \times 10 = 20)$

- Q.36 What is addressing modes? Explain the addressing mode of 8085 with example each.
- Q.37 Draw and explain the seven segment display interfacing with microcontroller 8051.
- Q.38 Write a short note on any two of the following:
- Instruction cycle
 - PUSH instruction
 - I/O mapped I/O scheme

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4th Sem / MSME **Subject : Embedded System**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note : Multiple choice questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.1 The basic elements of 8085 microprocessor is _____
- ALU, Memory
 - ALU, Control unit
 - ALU, Memory,I/P & O/P
 - ALU, Control unit & memory
- Q.2 The clock frequency of 8085 is _____
- 3.14 MHz
 - 6.28 MHz
 - 8 MHz
 - None of the above
- Q.3 A stack pointer in 8085 is a _____
- 16 bit register which points to stack memory locations
 - 16 bit accumulator
 - Memory location in a stack
 - Flag register used in the stack
- Q.4 Which addressing mode is used in instruction LDA2500 H?
- Indirect
 - Direct
 - Register
 - 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) TF0
- 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 the size of RAM in 8051 microcontrollers?
Q.12 Define the term machine cycle.
Q.13 What is the function of ALE in 8085?
Q.14 Expand MIPS.

- Q.15** Expand EPROM.
Q.16 What is the function of SCON instruction?
Q.17 Define assembly language.
Q.18 What do you understand by PPI?
Q.19 Define handshaking?
Q.20 What are maskable interrupts?

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21** Write short note on evolution of microprocessor.
Q.22 What are different types of buses used in microprocessor?
Q.23 Explain memory organization of 8051.
Q.24 Define interrupt. Differentiate between Maskable and non-maskable in interrupt.
Q.25 Explain the different instruction format of 8085 with example.
Q.26 Write a short note Synchronous data transfer technique.
Q.27 Explain the various stack instruction using examples.
Q.28 Explain the syntax and meaning of the DAA instruction with an example.
Q.29 Draw block diagram of 8255 and explain different blocks of 8255.
Q.30 How does a microcontroller differ from a microprocessor?
Q.31 Explain the Timer operation of 8051.
Q.32 Write a short note on "counters of 8051 microcontroller".