

- Q.29 Define 8, 16 and 32 bits Microcontroller with Example.
- Q.30 Define Instruction. And its types.
- Q.31 Write five features of PIC 16C84.
- Q.32 Discuss the Difference B/W direct and indirect address with example.
- Q.33 Explain methods of Interfacing in Microcontroller.
- Q.34 Explain PUSH Instruction with program.
- Q.35 Explain Need of Interfacing.

SECTION-D

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

- Q.36 Draw and Explain Pin Diagram of 8051 Microcontroller.
- Q.37 What do you mean by instruction? Explain the types of instructions of 8051 with the help of Examples.
- Q.38 Explain the interfacing of A/D and D/A converter with 8051 with the help of Diagram.

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5th Sem / Branch : Medical Electronics
Sub. : Microcontrollers & Embedded System

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Which of the following commands will copy the contents of location 4H to the accumulator?
- a) MOVA, O4H b) MOVA, L4
 - c) MOVL4, A d) MOV 04H, A
- Q.2 The 8-bit address bus allows access to an address range of:
- a) 0000 to FFFFH b) 000 to FFFH
 - c) 00 to FFH d) 0 to FH
- Q.3 The I/O port that does not have a dual-purpose role is:
- a) Port O b) Port 1
 - c) Port 2 d) Port 3
- Q.4 The total external data memory that can be interfaced to the 8051 is:
- a) 32K b) 64K
 - c) 128K d) 256K
- Q.5 The I/O ports that are used as address and data for external memory are:

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- a) Port 1 and 2 b) Ports 1 and 3
 c) Ports 0 and 2 d) Ports 0 and 3
- Q.6** Microcontrollers often have:
 a) CPUs b) RAM
 c) ROM d) All of the above
- Q.7** An alternate function of port pin P3.4 in the 8051 is:
 a) Timer0 b) Timer1
 c) Interrupt 0 d) Interrupt 1
- Q.8** MOVA,@R1 will:
 a) Copy R1 to the accumulator
 b) Copy the accumulator to R1
 c) Copy the contents of memory whose address is in R1 to the accumulator
 d) Copy the accumulator to the contents of memory whose address is in R1
- Q.9** The 8051 can handle interrupt sources.
 a) 3 b) 4
 c) 5 d) 6
- Q.10** The 8051 has 16 bit counter/timers/
 a) 1 b) 2
 c) 3 d) 4

SECTION-B

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

- Q.11** Full form of PIC is.....
Q.12 Pcon stands for
Q.13 Timer mode 'O' is a bit mode.

- Q.14** Internal RAM of 8051 is
Q.15 The 8051 offers level of interrupt priority.
Q.16 Expand UART.....
Q.17 At ROM location do we store 1st opcode of 8051 program.
Q.18 The accumulator is a special purpose and the versatile..... bits register of 8051 microcontroller.
Q.19 Seven segment display is basically a combination of 7.....
Q.20 8051 Microcontroller has I/O ports.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21** What is the function of Programs counter?
Q.22 Explain all the arithmetic group instruction with Example.
Q.23 Explain Rotate and Swag operation.
Q.24 Write short note on applications of microcontroller in Medical field.
Q.25 Write in Detail about the Interrupts of 8051 Microcontroller.
Q.26 Explain different Addressing modes of 8051.
Q.27 What is Bus? Explain types.
Q.28 Define Microcontroller and Its types.