

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ECE)/(ETE) (2011 Onwards) (Sem.-5)

B.Tech.(Automation & Robotics) (2011 & Onwards)

B.Tech.(Electronics Engg.) (2012 Onwards)

MICROPROCESSORS AND MICROCONTROLLERS

Subject Code : BTEC-504

Paper ID : [A2106]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. Write briefly :
 1. Write the instructions of 8085 microprocessors used to interface I/Os in Peripheral Mapped I/O scheme.
 2. Name different interrupts of 8085.
 3. What are assembler directives? Name any two assembler directives of 8051.
 4. What is the function of flags in microprocessors?
 5. Explain the PUSH and POP instructions.
 6. Explain RAM memory space allocation in 8051.
 7. What is the role of stack in subroutines and interrupts?
 8. The contents of memory location 2000H is 3E. Analyze the following program and tell the contents of accumulator after execution
LXI H, 2000H
MOV A, M
ORA A
 9. What is the function of PSEN pin of 8051?
 10. Which pin of 8051 is set aside for serial communication and what are their functions?

SECTION-B

2. Explain the following instructions :

DAD, ACALL, MOVC, SETB, JMP

3. Write a program in 8085 to add five numbers in a given string with starting location 3000H and store the result in memory location 3050H.
4. Discuss with examples the addressing modes of 8051.
5. What are embedded processors? How they are different from microcontrollers? Write any two applications of embedded processors.
6. Write a program in 8051 assembly language to create a square wave of 50% duty cycle on the P1 .5 bit. Timer 0 is used to generate the delay.

SECTION-C

7. What are interrupts? How they are handled? Discuss different interrupts of 8085.
8. Explain the arithmetic and logical instructions of 8051. Specify the flags affected in each case.
9. Explain with circuit diagram the interfacing of 8051 with DAC.