Roll No. ☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (CSE / IT/Electronics & Computer Engg) (2012 to 2017)

(Sem.–4)

MICROPROCESSOR & ASSEMBLY LANGUAGE PROGRAMMING
Subject Code : BTCS-404
M.Code : 56607

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS 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 have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Explain the following :

1. What is the purpose of PUSH and POP instructions in 8085 Microprocessor instruction set?

2. What is the difference between opcode and operand? Explain with suitable example.

3. Explain the PSW of 8085.

4. Write the differences between RISC and CISC processors.

5. Name the different modes of DMA controlled data transfer.

6. Define Interpreter.

7. Write about the concept of memory segmentation in 8086 microprocessors.

8. Write a program to add 7BH and 6AH using ADI instruction.

9. What are the advantages of 8086 microprocessor over 8085 microprocessor?

10. Differentiate MOV and MVI with suitable examples.

SECTION-B

11.   Explain the architecture of 8085 microprocessor.

12.   Explain the following 8085 signals: ALE, TRAP, READY, HLDA and $\overline{IO}/M$.

13.   Explain different addressing modes of 8085 in detail with examples.

14.   Explain 1 byte, 2 byte and 3 byte instructions along with suitable examples.

15.   Write about the different data transfer techniques used in microprocessors.

SECTION-C

16.   Explain the interfacing of 8085 microprocessor with seven segment display in detail.

17.   Discuss architecture and pin diagram of 8086 Microprocessor in detail.

18.   a)   Differentiate between instruction, machine and clock cycle.

      b)   Write a note on evolution of microprocessors.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.