

Roll No.

Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Electrical & Electronics)/(Electrical Engineering)/
(Electronics & Electrical) (Sem.-5)

MICROPROCESSORS

Subject Code : BTEE-503-18

M.Code : 78311

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 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

Answer briefly :

- 1) What do you mean by CPU timing? Explain.
- 2) How microprocessor differentiate between data and instruction code? Explain.
- 3) List the advantages of higher level languages.
- 4) Explain the need of stack.
- 5) Discuss the concept of pre-fetch queue in 8086.
- 6) What is memory segmentation? Explain.
- 7) Differentiate memory mapped I/O and Peripheral I/O.
- 8) What is a flow chart? Discuss its significance.
- 9) What is the function of USART? Explain.
- 10) Why interrupt controller is required? Explain.

SECTION-B

- 11) Discuss the following instructions *w.r.t.* 8085 :
 - a) XTHL
 - b) DAA
 - c) STC
 - d) NOP and HLT
 - e) XCHG
- 12) Draw a flow chart and write a program to find out the largest number from a set of ten numbers stored at a memory location 2050H using 8085 microprocessor instructions.
- 13) What is the need of addressing modes? Discuss various addressing modes of 8086 microprocessor with the help of examples.
- 14) Draw a flow chart and write a program using 8086 to count from 0 to 9 with a one second delay between each count. At the count of 9, the counter should reset itself to zero and repeat the sequence continuously. The clock frequency of the microcomputer is 1 MHz.
- 15) Discuss (in detail) Mode 0 and Mode 1 of 8253 chip.

SECTION-C

- 16) Discuss different modes of programmable peripheral interface 8255A in detail? Explain the control words of 8255 in I/O and BSR modes.
- 17) Draw and explain the architecture of 8085 microprocessor with the help of a functional block diagram.
- 18) Explain the following :
 - a) Hardware and software interrupts in 8086
 - b) Microprocessor and Microprocessor development systems

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.