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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech(Electrical Engineering & Industrial Control) (2012 Onwards)**B.Tech (EE)(Electrical & Electronics)/(Electronics & Electrical)****(2011 Onwards) B.Tech(EE)PT****(Sem.-5)****MICROPROCESSORS****Subject Code : BTEE-503****Paper ID : [A2109]****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. Answer briefly :**

- a. Differentiate between 8085 and 8086 microprocessors.
- b. Why stack pointer is initialized at the highest available memory location?
- c. Comparison of LXI H, 2000H and LHLD 2000H of 8085.
- d. Explain the control signals necessary in the memory mapped I/O.
- e. Discuss the concept of pre-fetch queue in 8086.
- f. What is memory segmentation? Explain.
- g. What is PSW? Explain.
- h. What is the function of USART? Explain.
- i. Why DMA controller is required? Explain.
- j. What is the function of 8255 chip? Explain.

SECTION-B

2. Discuss the overview of microprocessor structure and its operation.
3. Explain (in detail) the different types of interrupts available in 8085.
4. What do you mean by an instruction? Classify and explain the instructions used in 8086.
5. Draw a flow chart and write a program to arrange 10 bytes in a descending order using 8086 microprocessors.
6. Discuss in brief the different modes of 8254 programmable interval timer.

SECTION-C

7. With the help of block diagram explain in detail 8279 programmable keyboard/display interface.
8.
 - a. Draw a flow chart and write a program using 8085 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.
 - b. What do you mean by stack and subroutine? Discuss in detail the need of stack and subroutines in 8085.
9. **Explain the following :**
 - a. Addressing modes of 8086.
 - b. Minimum Mode of 8086.