

Roll No. ....

**3227**

**B. Tech. 5th Semester (CSE)  
Examination – December, 2022**

**MICROPROCESSOR  
Paper : E5C-CSE-301-C**

**Time : Three hours ]**

**[ Maximum Marks : 75**

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt any *five* questions. Selecting *one* question from each Section. Question No. 1 is *compulsory*.

- 1.** Describe following terms : 2.5 × 6 = 15
- (a) Memory Segmentation
  - (b) Pipelining
  - (c) LHLDD & SHLD Instructions
  - (d) Looping Instructions
  - (e) Programmable Interval Timer
  - (f) Vector Interrupts

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P. T. O.

**SECTION - A**

- 2. (a) Give the PIN diagram of 8085 microprocessor. 10  
(b) Define instruction cycle, machine cycle and T-state. Explain following instructions for 8085 :  
ACI, CMC, LXI, PUSH, MVI 5
- 3. (a) Write an assembly language program to find the number of 0's in a given byte of data. 7  
(b) Explain the addressing modes of 8085 microprocessor. 8

**SECTION - B**

- 4. (a) Draw the block diagram of 08086 microprocessor and explain functions of EU & BIU. 10  
(b) Differentiate between min and max mode of 8086 operation. 5
- 5. (a) Explain addressing modes of 8086 microprocessor. 8  
(b) What are the various instruction formats used in 8086 microprocessor ? 7

**SECTION - C**

- 6. Explain following in 8086 microprocessors in detail :  
(a) Data Transfer Instructions 8  
(b) Arithmetic Instructions 7

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- 7. (a) What are various directives and operators used in 8086 ? 10  
(b) Describe various Branching instructions in 8086. 5

**SECTION - D**

- 8. What are the applications of PIC ? Explain Block diagram & Pin diagram. 15
- 9. Explain the following in detail :  
(a) PPI 8  
(b) DMA Controller 7

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