

**B.Tech. – VIEP – COMPUTER SCIENCE AND
ENGINEERING (BTCSEVI)**

Term-End Examination

December, 2017

00657

BICS-012 : MICROPROCESSORS

Time : 3 hours

Maximum Marks : 70

Note : Attempt any **seven** questions. All questions carry equal marks.

1. (a) Describe the role of ES and DS in the 8086. 5
(b) Explain about Bus organization in 8086. 5
2. Explain about various addressing modes of the 8086 microprocessor. 10
3. (a) What is meant by Instruction ? Write about instruction template with example. 5
(b) How do you move data between registers ? Write instruction code for them in 8086. 5
4. Differentiate between MAX and MIN mode operations in the 8086 microprocessor with suitable codes. 10

5. (a) What is meant by Interrupt and Interrupt Responses ? 5
- (b) Write about divide-by-zero interrupt and single-step interrupt. 5
6. (a) Discuss the priority of interrupts with a timing diagram for an interrupt. 5
- (b) Explain various steps to handle interrupts. 5
7. What is DMA ? Explain the functioning of a typical DMA controller with the help of a block diagram. 10
8. Explain 8254 internal block diagram. Explain 8254 operating modes. 10
9. Explain the architecture of 80386 processor. 10
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