

**B.Tech. - VIEP - ELECTRICAL ENGINEERING
(BTELVI)****Term-End Examination****December, 2015****BIEE-015 : MICROPROCESSOR AND ITS
APPLICATIONS***Time : 3 hours**Maximum Marks : 70***Note :**

- (i) *Attempt any seven questions.*
- (ii) *Assume missing data, if any.*
- (iii) *Use of scientific calculator is permitted.*
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1. (a) With the help of a neatly labelled block diagram, explain the operation of a microcomputer. 5
- (b) Explain the operation of the following instructions : 5
- (i) LXI H, address
- (ii) STA address
2. (a) Explain the classification of instruction set of 8085 microprocessor with suitable examples. 5
- (b) Explain the bus organisation of 8085 microprocessor. 5

3. What are the various addressing modes used in 8085 microprocessor ? Explain each with suitable examples. 10
4. With the help of a neatly labelled block diagram, explain the architecture of 8085 microprocessor. 10
5. What are the advantages of 8086 microprocessor over 8085 microprocessor ? Explain the various operating modes of 8086 microprocessor. 10
6. What is a Direct Memory Address (DMA) Controller ? Explain the different transferring modes used in DMA controller. 10
7. What is an interrupt ? What are the issues in implementing interrupts ? Explain RST instruction. 3+4+3=10
8. Write short notes on the following : 2×5=10
- (i) 8255-PPI
 - (ii) 8259-PIC
9. What is a directive ? Write a program for obtaining the square root of a number. 10
10. Explain the following for 8086 microprocessor : 5+5=10
- (i) Memory Address Space
 - (ii) Data Organisation
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